

OUR PROGRESS TOWARDS THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

2022/23

Foreword

As beacons of collaboration and thriving communities for thousands of international students and staff, universities are an essential anchor in the struggle towards global sustainable development. This is no novelty for us here in Bristol. The University has long been committed to addressing the challenges of living and working sustainably, and making a positive contribution to our shared environment, whilst recognising the structural inequalities and colonial legacies that underpin our societies.

Our research remains at the forefront of tackling global issues like inequality, migration, poverty, and the health impacts of climate change that are pivotal to the UN Sustainable Development Goals (SDGs). Many of our staff have been involved not only in research framed through the SDGs, but also in advocating within and supporting the negotiations that led to them, and advancing their analysis and implementation. We are also acting locally, increasing the sustainability of our own organisation and driving civic collaborations, including through partnering with our city and region on the ground-breaking work that led to Bristol's Voluntary Local Reviews and set up of the SDG City Alliance.

Delivering the UN SDGs has proved a significant challenge worldwide, especially in the face of the COVID-19 pandemic, global conflicts, and geopolitical

instability. In 2024, only 17% of 169 SDG targets are estimated to be on track, with nearly half showing only minimal or moderate progress, and over a third having stalled or even gone backward. Today, more than ever, we are committed to confronting this shortcoming with renewed resolve by emphasising the power of partnership to drive change globally.

The wealth of examples of how we have embraced the SDGs stands as a testimony to this resolve. These pages report on and highlight some of the action we have taken in 2022/23 through our research, our teaching and learning, our operational activities, and our partnerships with local and global communities. But there is still a long way to go, and a lot more to deliver. In this growing spirit of collaboration that grounds our global civic commitment, we look forward to working together, locally as one city and internationally as one planet, to deliver on a shared, sustainable future.

Professor Michele Acuto


















Pro Vice-Chancellor
(Global Engagement)

Professor Palie Smart

Associate Pro Vice-Chancellor
(Global Civic Engagement)

More information about the University's work towards the United Nations' Sustainable Development Goals, including an accessible version of this report, is available at: bristol.ac.uk/university/for-bristol/unsdgs/

Contents

 SDG 1 No Poverty.....	4
 SDG 2 Zero Hunger	6
 SDG 3 Good Health & Well-being	8
 SDG 4 Quality Education	10
 SDG 5 Gender Equality.....	12
 SDG 6 Clean Water & Sanitation.....	14
 SDG 7 Affordable & Clean Energy	16
 SDG 8 Decent Work & Economic Growth.....	18
 SDG 9 Industry, Innovation & Infrastructure.....	20
 SDG 10 Reduced Inequalities	22
 SDG 11 Sustainable Cities & Communities	24
 SDG 12 Responsible Consumption & Production	26
 SDG 13 Climate Action	28
 SDG 14 Life Below Water	30
 SDG 15 Life on Land.....	32
 SDG 16 Peace, Justice & Strong Institutions.....	34
 SDG 17 Partnerships for the Goals	36

Goal 1: No poverty

End Poverty in all its forms everywhere

Our research

[Bristol Poverty Institute](#) and partners in the [Global Coalition to End Child Poverty](#) co-authored two briefing papers in 2022/23, exploring the [disproportionate impact](#) of the climate crisis on children in poverty, and the inclusion of child poverty in [voluntary national reviews](#) of progress on the Sustainable Development Goals. Researchers from the Institute also [co-hosted an event](#) at the UN General Assembly Science Summit in September 2023, sharing tools for analysing poverty, climate and environmental change with delegates from across the world.

The [Living Financial Resilience](#) participatory research project ran in 2022/23. Funded by Bristol's [Brigstow Institute](#), it brought together researchers from across the university with community partners to understand the lived experience of residents of the Lawrence Hill area of the city, and to work with them to co-design services that would support and empower them in their journey towards financial resilience.

Our students

The [Bristol Runway Awards](#) are an annual competition for students and recent graduates who need funding to grow or develop early-stage businesses. In 2021/22, £50,000 in funding was awarded for ideas with potential to make a positive difference in the local community and beyond, with the funding in 2022/23 increasing to £75,000. The

Awards, which started in 2020, are funded through donations from University alumni and friends.

As well as the funding provided through the Awards, the [Runway Programme](#) is available to all students and graduates. The programme offers vital support for start-up businesses, including mentoring and business plan development advice from Bristol's [Centre for Innovation and Entrepreneurship](#) and our experienced Entrepreneurs in Residence.

Our communities

[Bristol Poverty Institute](#) runs a range of events for academics, practitioners and the local community, sharing the latest evidence, offering opportunities for discussion, and learning about the causes of poverty and ways to tackle it. [Sessions in 2022/23](#) looked at issues including disability, health, housing, wages and work, child poverty, and the measurement of poverty.

Following community interest in our volunteering schemes, staff from the University's Finance Services division set up a pilot to help advise voluntary sector organisations and small businesses on professional finance skills. An initiative was established with the Malcolm X Community Centre, based in inner city Bristol and serving a racially diverse, intergenerational community. Staff members from Finance met with the Centre throughout the year to advise on areas including cost management, procurement and contract advice, and room bookings.

Ourselves

Progress has been made on increasing the proportion of our students from lower socio-economic backgrounds, but there is still work to be done. We have allocated almost £8 million per year for [low-income student bursaries](#), and offer a [Digital Support Fund](#) for low-income students who need help to buy or repair IT equipment. Students can also get specialist one-to-one support from our Money Advisers, and cash payments or food vouchers for those in need.

Staff with financial challenges are also supported. Through our adoption of the [Real Living Wage](#), staff salaries are aligned to recognise the cost of living. Staff can also access [financial benefits and discounts](#) such as childcare vouchers and a bicycle purchase scheme, and those who need extra help can access financial wellbeing courses, our Employee Assistance Programme, and one to one financial advice sessions with external experts.



Attendees of the annual meeting of the Global Coalition to End Child Poverty, December 2022

Goal 2: Zero hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Our research

A [University of Bristol-led study](#), published in March 2023, has demonstrated the impact of providing free school meals to all pupils aged 11-16 after a trial in two schools in the London Borough of Hammersmith and Fulham. Over a quarter of the pupils at the schools were shown to be experiencing food insecurity. The evaluation showed that providing universal free school meals was feasible, easier to deliver than the current system, and had an overall positive impact on pupils' behaviour, concentration, food insecurity, healthier diet choices, and the mental health of both students and their families.

A new University interdisciplinary research network was established in 2023 to explore social and environmental justice and food sustainability on a local, regional, and global scale. The [Food Justice Network](#) brings together expertise from across the University to collaborate with partners across Bristol's communities on research projects and local action-orientated events. Publications have so far looked at food waste interventions in low- and middle-income countries, and the effects of extreme weather and climate change on the UK food system.

Our students

Units related to food and sustainable agriculture are available for students across a number of disciplines,

including sociology, politics, geography and biology. These include [Power, Politics and Food](#), which explores issues relating to food as a site of power and inequality, and the ecological, political, social, cultural and economic elements of the theory and practice of food. The [Geographies of Food](#) unit considers the historical and contemporary production of foods, food networks, eating patterns, landscapes, and images of foods and consumers. [Plants and Sustainable Food Production](#) looks at how responsible biological innovation can be integrated with existing agricultural practices to produce sustainable food production systems of the future.

The student-run [Hungry Caterpillar food cooperative](#) was relaunched in March 2023, after being on hold during the pandemic. The cooperative buys from a local wholesaler and resells each week on campus at the same price. Members bring along their own containers and buy produce by weight, minimising food waste and plastic packaging. They can also enjoy a cheap and sustainable lunch made with ingredients from the co-op and vegetables donated by a local grocer's shop.

Our communities

Staff from the [Bristol Poverty Institute](#) were joined by colleagues from across the University when they volunteered at the Bristol North West Foodbank [in the run up to Christmas 2022](#). They packed festive

hampers, Christmas bags for Ukrainian refugees, and helped staff a cafe area. In December 2023, they again [teamed up with colleagues](#), this time organising a bake sale as part of an initiative with North Bristol and South Gloucestershire foodbank. The money raised was supplemented with additional donations of food items and toiletries, and staff used their University volunteering days to prepare boxes of items for distribution through the foodbank for those in need.

In collaboration with the Royal Agricultural University, in 2023 we signed a long-term [partnership agreement](#) with the University of Al Dhaid to deliver new education and research programmes in sustainable agriculture and veterinary medicine. The aims of the programmes are to make a tangible difference to the lives of those in the region by helping to address the key issues of food security, climate change, and animal welfare through the creation of more sustainable crop and livestock systems, and the building of critical veterinary and agriculture capacity.

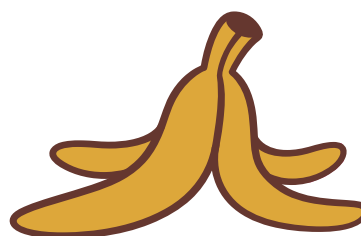
Ourselfs

We are proud members of the [Menus of Change University Research Collaborative](#), working with researchers and students worldwide to encourage plant-based food choices. Our Marketplace campus restaurant now has a menu that is 83% plant-based, with food cooked from scratch using fresh local produce. Using the Menus of Change principles, we have also reimagined the menus in our catered halls of residence so that meat and fish dishes represent just 28% of the offering.

Our [Sustainable Food and Beverage Policy 2022-2024](#) sets out the steps we are taking to engage in procurement and service delivery practices that are environmentally and socially sustainable, whilst encouraging healthy and sustainable eating. Our in-house catering team has maintained its [accreditations](#) from Red Tractor and the Marine Stewardship Council, and received the Good Egg Award and a Soil Association Bronze award.



**free vegan meals given away
in January 2023 from our
Senate House Marketplace**



100%

**of our food waste is sent to an
anaerobic digestion plant and
turned into renewable energy**



**of our suppliers to be located
within a 30-mile radius
by 2024**

Goal 3: Good health and well-being

Ensure healthy lives and promote well-being for all at all ages

Our research

Our [Children of the 90s study](#) reached its 33rd year in 2023, taking a longitudinal approach to studying the health and wellbeing of parents and children in the Bristol area. Topics currently being explored include childhood eating patterns, fatty liver disease, and the menopause. The project also received [an award of £6.4m in MRC/ESRC](#) funding in 2023 as part of the [UK Longitudinal Linkage Collaboration](#). This partnership of longitudinal studies offers a valuable resource, providing access to data that can enable cross-sector working and support further research.

Patient wellbeing is a core concern for health research. In 2023, [a study by researchers at Bristol Medical School](#) examined the information patients receive about innovative or novel surgeries, and whether they are fully informed before making decisions about their treatment, offering recommendations for improving communication and increasing patient involvement. Meanwhile, research from the [University of Bristol Law School](#) into the importance of patient autonomy and choice in mental health care has helped inform the work of the UK Parliamentary Committee scrutinising the new Mental Health Bill, which [published its report in early 2023](#).

Our students

In 2022, Bristol was one of the first universities to receive the [University Mental Health Charter Award](#) from Student Minds, the UK's student mental health charity. The University conducted a robust, evidenced-based assessment of its entire support offer, including areas that could use improvement. A 22,000 word report and two-day inspection from Student Minds were part of the assessment process, which included scrutiny of 18 areas of the University's support for mental health, including support services, proactive interventions, inclusivity, and accommodation.

In early 2023, a new group was established by Bristol researchers with an interest in medical education. The [Bristol Medical Education research group](#) offers an opportunity for staff to come together to share expertise and collaborate on finding new, innovative ways to improve teaching and learning in the medical, clinical and healthcare fields.

Our communities

A teaching resource to help teenagers find out about the human papillomavirus (HPV) vaccine in schools has been awarded the Personal, Social, Health and Economic (PSHE) Education Association quality mark. [EDUCATE](#) was co-produced by researchers from the University of Bristol and the London School of Hygiene and Tropical Medicine working with young

people, and will help inform and reassure young people about the HPV vaccine, which is usually offered to teenagers at school as part of the national vaccination programme.

2023 saw the launch of [Good Grief Weston](#), a festival in Weston-super-Mare, North Somerset, that aims to open up conversations around death and bereavement. Co-organised by the University and local community partners, the festival offered 30 workshops and events over eight days, including yoga, music and crafts. The Good Grief Festival was first run as a virtual event in 2020, and was started by two Bristol academics as a way to bring people together to share experiences of love and loss during the pandemic.

Ourselfs

A landmark new building for the [University's Dental School](#) opened in summer 2023, transforming the student experience and the School's links with the local community. The £36 million purpose-built space, spanning 7,300 square metres, enables Bristol students to learn alongside trainees in dental hygiene, therapy and nursing, mirroring real-world practice. It will also allow the School to increase student places by around 25% and to expand its work providing free oral healthcare to under-served sections of the population at a time of significant inequality of access to dental care in South West England.

[Six new externally mounted defibrillators](#) were installed across our central campus in late 2022, which can be used in an emergency to save someone's life if they experience sudden cardiac arrest. The automated external defibrillators (AEDs) are in publicly accessible places, available 24 hours a day, and carry clear step-by-step instructions for use. Staff from the [Medical School](#) and colleagues from the [Safety and Health Team](#) worked with Security, Estates and Campus Division to identify where the new defibrillators should be located, taking expert advice from South West Ambulance Service and

Bristol City Council. The new and existing units have been added to a national defibrillator network known as The Circuit so that, in the event of an emergency call to 999, users can be directed to the nearest available AED unit by the ambulance service.



We were among the first universities to earn the
UNIVERSITY MENTAL HEALTH CHARTER AWARD,
highlighting our commitment to best practices in mental health and wellbeing



Prof Evelyn Welch, Vice-Chancellor and President of the University of Bristol, is joined by Bristol medical students Aashna Bali and Abbi Bow, and Jason Leung and Victoria Belsten, University Student Volunteering Unit Community First Responders, at the official launch of the defibrillators. Image credit: Bhagesh Sachania

Goal 4: Quality education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Our research

Research looking into identifying and redressing educational injustices has [received an award of nearly €2 million](#) from the European Research Council. The project, led by a researcher from our [School of Education](#), will explore the mechanisms of persisting inequities in schooling, and the possibility of reparation within school systems. This interdisciplinary project, which started in 2023, will bring together researchers and primary schools in the Bristol area with local communities, policymakers, and the public to address important questions about equity and fairness in education.

The COVID-19 pandemic had a significant impact on the [education and wellbeing](#) of school-age children, according to research also from the [School of Education](#). A study, published in 2022, looked at the consequences of varied home-schooling provision, and the impact on young people's mental health. Looking at the experiences of children, parents and teachers, the research made policy recommendations around examination practices, curriculum changes, and providing young people with space to speak, reflect and understand what they have been through.

Our students

A group of young people from Bristol group Tackling Diversity in Teaching [shared their experiences of](#)

[race, diversity and multiculturalism](#) in schools with PGCE students from the School of Education as part of a day focused on diversity and decolonisation in March 2023. The day [aimed to help increase understanding](#) among these future teachers on valuing and reflecting diverse experiences through the curriculum, and recognising and addressing our own unconscious biases and actions.

We are committed to providing lifelong opportunities for access to education and learning, including to those who are not following a traditional pathway. In 2023, we [highlighted five short courses](#) targeted towards supporting adult learners to learn new things, develop skills, and explore further educational opportunities. These five covered writing a memoir, re-learning Black history, working as a freelance journalist, reading English literature, and gaining practical skills for decolonialised teaching of history.

Our communities

In 2023, a group of Year 12 students participated in a workshop on immersive technologies, delivered by Bristol academics and current students as part of the [Sutton Trust Summer School](#) with partners at [MyWorld](#). The students got involved in a discussion on the ethics of emerging technology, were invited into virtual reality to view immersive films, and had a hands-on tutorial

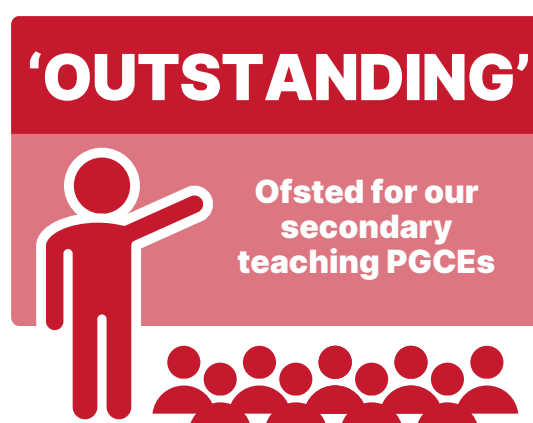
with 360-degree cameras and immersive audio recorders. The workshop allowed the students to see the different educational paths and career options within the immersive technology sector.

The [Building socially-just mathematics classrooms](#) project ran in 2023 and focused on improving mathematical learning experiences for students. It was a collaboration between the [School of Education](#) and Gordano School, a large secondary comprehensive which had recently changed its mathematics teaching model to mixed attainment grouping, with the aim of supporting the most vulnerable and disadvantaged students. The project sought to co-design effective curriculum materials for this mixed set approach, and resulted in the development of fully resourced classroom tasks and activities for Years 7, 8 and 9.

Ourselves

A range of opportunities are available to help support students from under-represented backgrounds to enter higher education. Programmes include our [Bristol Scholars](#) scheme, where teachers can nominate students based on their academic potential and individual circumstances to receive personalised pre-entry support, a contextual offer from the University, and ongoing support throughout their time at Bristol. Another programme, [Insight into Bristol](#), is a free Summer School that offers Black and Asian Year 12 students the chance to sample university life, and to receive a contextual offer to study at Bristol.

The University has been making contextual offers for admissions since 2016, but in 2023 [a new criterion](#) of receiving free school meals was added to the list. The aim is to help tackle the continued inequity in admissions that results from the structural and personal challenges faced by some students, especially in light of the impact of the COVID-19 pandemic. [Contextual offers](#) can already be made for care leavers, those from deprived areas or schools, and those who have participated in one of the University's targeted outreach programmes or who attend a University-sponsored school.



Goal 5: Gender equality

Achieve gender equality and empower all women and girls



Our research

In late 2022, a researcher from Bristol's [Centre for Gender and Violence Research](#) was [awarded €1.5 million](#) in ERC funding for a study into sexual misconduct and abuse against adults by people in professional roles such as doctors, police officers, and the military. Founded in 1990, the Centre has a long history of research on gendered violence, exploring issues around domestic, sexual, "honour"-based, and reproductive violence, abuse and harm. Other recent studies have looked into areas such as [early intervention policy](#) in domestic violence cases, the scale and dangers of [forced marriage](#), and the use of [prescription medication](#) as a tool of coercion in abusive relationships.

A co-produced, participative study between Bristol academics, partner researchers in South America, and [women in Colombia](#) in 2022/23 explored the ways in which women farmers are, and can be, empowered to participate in transitions to more sustainable, more peaceful, and more equitable ways of living. The research particularly aimed to [place the women at the centre](#), reflecting and supporting their agency and their role in an area struggling with high levels of violence, displacement and conflict.

Our students

A new [Philosopher Queens unit](#) was offered to students for the first time in 2022, with the aim of

helping to diversify the traditionally male-heavy, western-centric philosophy curriculum. It is offered alongside a range of other philosophy modules and teaches often-overlooked female thinkers such as 4th century AD philosopher and astronomer Hypatia and modern-day thinkers like bell hooks, the Black rights and feminist activist. By offering a more diverse view of philosophers, the course aims to help more students see philosophy as something for them.

We continue to support students from genders currently under-represented in Science, Technology, Engineering and Maths (STEM) into these fields, including through activities such as our annual [Underrepresented Genders in Mathematics](#) event. This event aims to encourage students to continue their studies to graduate level and beyond, and in 2022, featured talks from mathematicians working both in universities and industry, offering students insight into the potential career paths that mathematics can open up.

Our communities

The [Enterprising Women programme](#) ran for a third year in 2022/23, offering free business support for female entrepreneurs in the Bristol area. Funded by NatWest, this programme is provided by [SETsquared Bristol](#), the University-led technology incubator in the city. Through the programme, women are able to access expert business support, workshops, mentoring and coaching, and a network

of businesses, advisors and investors, in a supportive, inclusive environment.

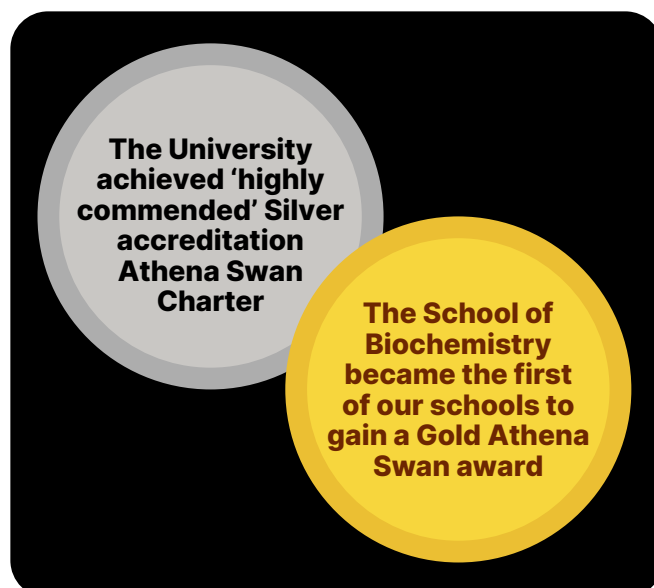
Students at the [University of Bristol Law School](#) have been working with local solicitors firm Lyons Davidson and the [charity Next Link](#) to provide [free legal advice to women](#) seeking help. Next Link provide support services for those affected by domestic or intimate partner violence, particularly in relation to housing and mental health. Students are able to support women on issues around family law, with some cases taken on formally through the University's [Law Clinic](#).

Ourselves

In 2022, Bristol welcomed our [first female Vice-Chancellor](#) and President, Professor Evelyn Welch. Professor Welch is the 14th Vice Chancellor of the University, and the first woman to hold this role since the University was founded in 1909. She brings a wealth of experience and a strong commitment to helping everyone achieve their potential.

The University achieved a [highly commended institutional Athena Swan Silver award](#) in 2023 and also received a rare Gold award for our School of Biochemistry. The awards recognise progress in tackling gender-based inequality through measures in areas such as broadening promotions criteria, our women's mentoring scheme, targeted development programmes, and increasing access to opportunities like conferences and training events.

We are also working to address the [gender pay gap](#), developing targeted, innovative, effective interventions, setting clear, ambitious targets, and monitoring progress. In 2023, our mean gender pay gap had reduced by 5.6% since 2017. But there is still work to do, and our [Athena Swan action plan](#) sets out our ambitions and a programme for continued improvement on the pay gap and other areas between now and 2027.



Goal 6: Clean water and sanitation

Ensure availability and sustainable management of water and sanitation for all

Our research

Research by our [Water and Environmental Engineering research group](#) is focused on finding effective solutions for people in low- and middle-income countries who lack access to clean, safe water. Working with partners in South Asia and Africa, [researchers from the University](#) are focused on the areas of climate change and resilience, poverty and infrastructure, and public health. In 2023, a University researcher received a Royal Academy of Engineering Research Fellowship to [support work](#) looking at ways to improve intermittent water supplies in low-resource countries.

Another part of this work is [the SCARE project](#). Funded by the Gates Foundation, this four-year programme is focused on Sanitation and Climate: Assessing Resilience and Emissions (SCARE). In 2022, researchers from Bristol worked as part of a team with local stakeholders, governments, policy makers and other universities, [conducting field work](#) in Nepal, Ethiopia, Uganda and Senegal to develop tools and methods to help make sanitation services more resilient in the face of climate change.

Our students

Bristol is one of a small number of UK universities that offer a dedicated course at Masters level focused on sustainability and water management. Our [MSc Water and Environmental Management](#) course provides

students with the training and skills they need to work in this field, combining elements of engineering, science and management within a context of sustainability and environmental stewardship.

Students on some other courses within the fields of Engineering and Geography also have the opportunity to study units at undergraduate and postgraduate level on Water Engineering, Water Resources Engineering, Water Resources Management in a Changing World, and Water Governance and Management.

[Be the Change](#) is a broad sustainability behaviour change campaign that aims to educate and engage staff and students in six lifestyle areas: food, fashion, travel, electricals, water & energy, and action. Water was the focus in November 2022 and May 2023, with events including an [Every Drip, Every Drop webinar](#) in collaboration with Bristol Water, and [tips](#) and [challenges](#) to help staff and students reduce water use.

Our communities

Our [Professional Liaison Network](#) develops authentic learning opportunities for students with external partners. Through this mechanism, a Masters student in Society, Politics and Climate Change co-developed a project to [assess the efficacy](#) of Kenya's Water Security Plans with local water charity Frank Water, sustainable development advisors Arup, and NGO Amref Health Africa. Using Frank Water's Toolkit – a practical guide for water, sanitation and hygiene

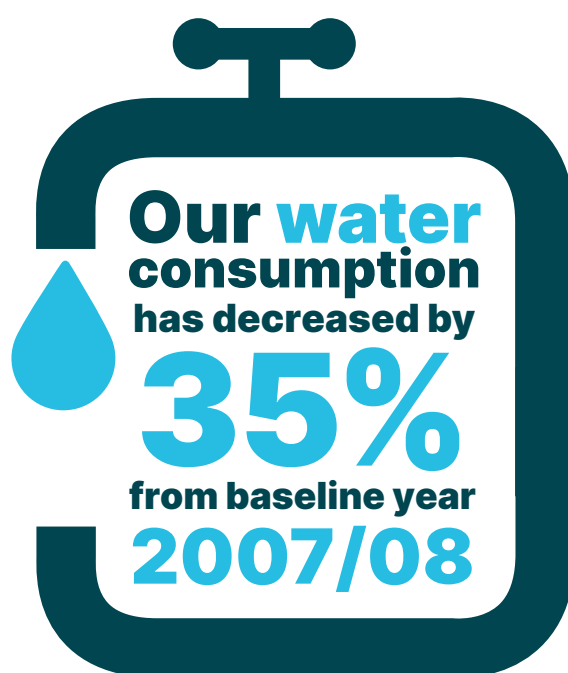
(WASH) – the project investigated how the use of the Toolkit in Kenya had improved water management, collection and training, demonstrated the impact on communities, and provided recommendations for improved future applications in East Africa and globally.

In 2022, the SCARE team from the University's [Resilient Water and Sanitation Services](#) research group shared their research, including [their framework](#) for assessing water and sanitation service resilience in relation to climate change, via the [Papers to Practice podcast](#). The podcast series aims to help communicate research to practitioners and professionals in the sanitation field and is co-hosted by non-profit water group [CAWST](#), the Swiss Federal Institute of Aquatic Science and Technology ([EAWAG](#)), and the Sustainable Sanitation Alliance ([SuSanA](#)).

Ourselfs

Bristol is the founding city and headquarters of Refill, which launched in 2015 to connect people with locations where they can eat, drink and shop with less waste. We support Refill Bristol by providing access to [mains drinking water points](#) all over the campus. Staff, students and visitors can refill water bottles or cups at 19 points, as part of the overall 400 stations across the city.

The University's [Carbon and Water Strategy](#) sets out our ambitions and actions to reduce water use, with targets to measure water consumption, cap water consumption at 2016/17 levels, and implement conservation and efficiency measures across campus, starting with the most high-consuming buildings. [As of 2022/23](#), water consumption returned to pre-2020 levels after a period of disruption during the pandemic, but is down 35% on our 2007/8 baseline, and we continue to work towards maximising the efficiency and effectiveness of water use and management across the University.



(Shanghai Ranking of Academic Subjects)

Goal 7: Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all

Our research

In 2022, researchers from [Bristol Composites Institute](#) created a [new, sustainable nanomaterial](#) that could pave the way for new high-energy, low-cost batteries. Developed with partners from UCL and Imperial College, the material is made of seaweed and can form the separator in sodium-metal batteries, preventing deterioration and increasing their efficiency. This could help a shift away from lithium-ion batteries, which can involve unethical or resource-heavy mining practices, to greener, more sustainable energy storage.

Bristol is also the lead partner on the [Supergen Energy Networks Hub](#) (SEN), a collaborative project with partners from industry, academia, government and other bodies delivering impactful, interdisciplinary research to enable energy networks to facilitate a rapid, safe and just transition to Net Zero. Between 2019 and 2023, 24 projects were supported to a value of more than £730,000 by SEN's flex fund of seedcorn funding to prompt work in new and emerging areas, while SEN itself was awarded £5 million in funding from the EPSRC to support the continuation of its work.

Our students

Our unique [MSc Engineering with Management](#) offers students the opportunity to specialise in engineering and management for renewable energy through an [Energy for Sustainability pathway](#).

Supported by dedicated academics and industry experts, in 2022/23 this pathway has involved specialist units on energy use and its impact, renewable energy devices, systems and technologies, and changing demands on engineering design and propulsion devices.

A dedicated unit on Energy Management has also been on offer for the 2022/23 academic year to other students at Masters level. The Unit is provided by the School of [Electrical, Electronic and Mechanical Engineering](#), and offers students the chance to focus on both the theory and practice of energy management, with a focus on renewable energy generation and efficient power usage.

Our communities

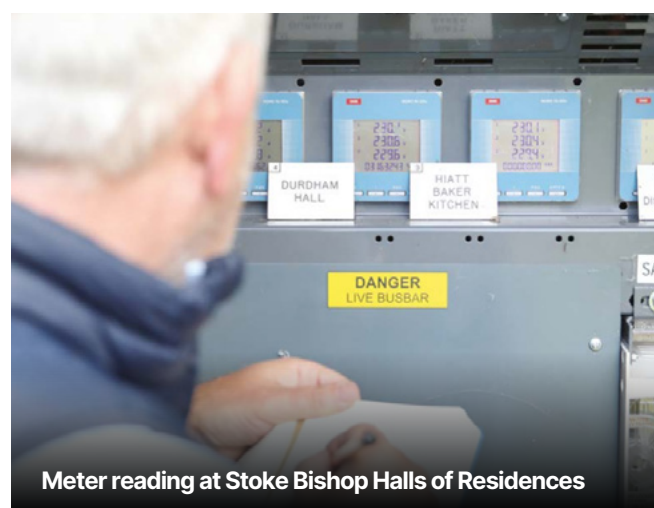
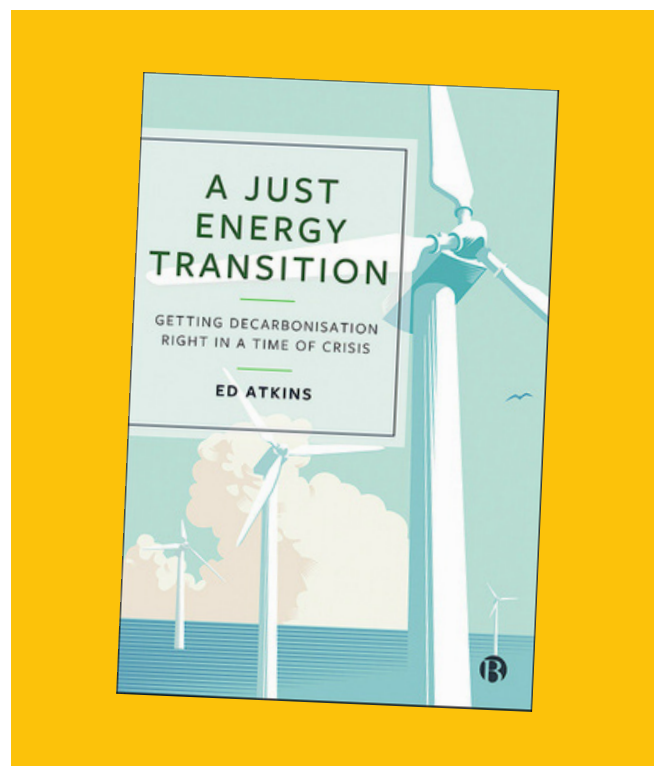
The GW4 Alliance of Bristol, Bath, Cardiff and Exeter Universities [received £4.6 million](#) in funding for work with partners in local authorities, industry and community groups to retrofit houses for Net Zero. Launched in late 2023, the project will see co-designed methods for making houses energy efficient and low carbon, with a focus on the use of bio-based materials such as cork and wood that are more sustainable. It will include retraining and upskilling for those in the industry, and educational and wider community engagement on energy efficiency and housing in partnership with [the Future Observatory](#).

In 2022/23, researchers at the University shared a number of briefings for policymakers in relation to energy, sustainability and the environment. November 2022 saw recommendations on energy efficiency and digital inclusion co-produced with partners from Lewisham Borough Council and National Energy Action, while in 2023, two reports explored key issues in ensuring a just energy transition, covering [green jobs and skills](#) for young people in the Net Zero agenda, and using the Great British Insulation scheme to support the vulnerable in a [just model](#) of energy efficiency.

Ourselves

Rising energy prices have posed a challenge to many organisations over the past few years, with the University being no exception. In response to this pressure, and in line with our commitment to reducing carbon emissions, we secured [£2.8 million in new investment](#) to roll out a programme of additional energy efficiency measures in 2022/23 and 2023/24. These include trialling LED lighting, replacing old, inefficient boilers and other hot water systems, optimising building systems for heating, ventilation and lighting, and investigating new facilities such as a centralised cold storage and new water purification technology. The aim is to cut gas and electricity consumption by around 10% each year and reduce carbon emissions by around 8%.

We have also increased our [solar power capacity](#) by nearly 100kW, and now have just under 500kW available across three major sites, as well as several smaller ones. We are reviewing opportunities to use more solar power and heat pumps and are looking at ways to recycle heat that might otherwise have been wasted, particularly from computer servers.



Goal 8: Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Our research

New research from the [University of Bristol Business School](#) in 2023 found that more than half of gig economy workers in the UK are paid [below minimum wage](#). The study, believed to be the first of its kind, gathered input from 510 people in a range of part-time, gig-based roles. It explored their pay and conditions, their health and wellbeing, and their views on what changes could improve these types of work. Recommendations included extending basic worker rights and protections and creating representative mechanisms for workers to contribute to decision-making.

Researchers within the Business School have also explored the changing behaviour of workers in relation to work-related risk-taking. Two key publications in 2023 have explored the links between household indebtedness, for example through mortgages, and attitudes to taking risks with workplace security, through accepting or refusing [atypical working arrangements](#), or through [taking industrial action](#) over workplace concerns. This research has helped increase understanding of employee-employer relations and demonstrates the role of household financial factors in workers' decision-making.

Our students

Students at the University have a range of options for postgraduate courses that focus on good employment. Our [MSc Human Resources Management and the Future of Work](#) is an intensive, specialist programme focused on changes to work resulting from the green transition, digital transformation, and the agendas around sustainability and global equality. Our [LLM Law in Employment, Work and Equality](#) offers a chance to explore employment law with a specific focus on equality, migration, and contemporary legal issues.

The [Bristol PLUS Award](#) has been designed to help students prepare for finding work after university. This employability award scheme recognises and rewards students for their extracurricular activities, providing a structure for reflecting on achievements and skills, and demonstrating commitment and value to future employers. Students who go above and beyond can even win an [Outstanding PLUS Award](#), for making an impact through their actions. Winners in 2022/23 included students who developed initiatives to tackle period poverty, created a sensory room on campus to enable inclusiveness for neurodiverse students, and brought organisations together to better support refugees and asylum seekers.

Our communities

Researchers from the University's [Migration, Mobilities Bristol](#) specialist research institute have been working with partners from local social enterprise Ashley Community Housing to help [support refugees and migrants](#) in the Bristol area starting and growing their own businesses. The Migrant Business Support Project, launched in 2021, has supported more than 640 people in its first 30 months. A [study in 2023](#) by the University showed that this model, informed by the lived experience of the refugees and migrants themselves, and focused on offering positive, holistic support, gives positive outcomes for individuals and their communities.

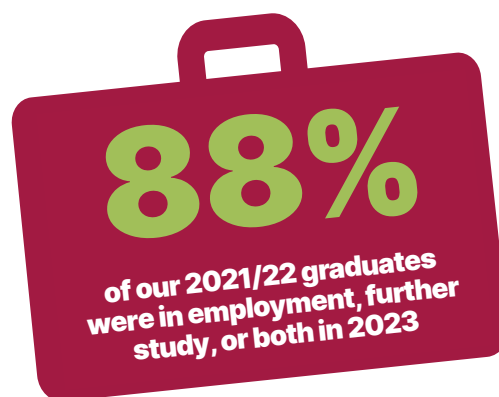
As a Living Wage employer, the University joined a celebration of [Three Years of Bristol Living Wage City](#) in 2022, in partnership with the Mayor of Bristol, Bristol City Council and fellow Living Wage employers. The event was an opportunity to engage with experts about the accreditation process and hear from businesses about their experiences. Our [Bristol Poverty Institute](#) also participated and outlined the impact the Living Wage could make for organisations and the city.

Ourselves

The University makes a significant contribution to the economic, social and environmental wellbeing of Bristol and the South West region. This includes ensuring that a rising proportion of external purchasing is spent via organisations based in the surrounding region. One of our [procurement targets](#) was to increase the University's spend with local suppliers to at least £40 million by 2029/30. This has already been exceeded, with an estimated quarter of spending being among firms operating in Bristol (£70 million), and almost half within the West of England Combined Authority (£131 million). We are also committed to encouraging environmental sustainability, education, training work placements,

apprenticeship opportunities, inclusion and employment through our contracts.

Opportunities to increase employability can be vital to a student's future happiness and success, but personal circumstances can make it challenging for some. The University's [Futures Scholarship programme](#) has been designed to help tackle these inequalities of opportunity, providing up to £1,000 for students in need to be able to take advantage of activities to boost their employment prospects, such as internships, placements, or summer programmes.



Goal 9: Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Our research

Technological infrastructure is vital to modern life and modern businesses. The University's [Smart Internet Lab](#) is leading the way in cutting edge work on communications networks, securing funding in 2022/23 for research into areas including the telecoms supply chain, future 6G mobile networks, and cloud computing. In 2022, the Lab also completed the first prototype of their [Nomadic Node](#), a portable "network in a box" that creates connectivity between devices. With applications wherever electronic devices need to be networked together, the Node has potential to benefit businesses across a range of sectors.

Researchers at [Bristol Robotics Laboratory](#) have brought robotics together with artificial intelligence (AI) to develop an innovative [new bimanual robot](#) which can "feel" what it is touching. The new Bi-Touch system developed by the researchers allows the robot to carry out manual tasks using AI to interpret the environment and guide the robot's actions. The robots could potentially be taught to do tasks that require dexterity and involve a touch element, such as fruit picking or providing physical care.

Our students

Bristol students can choose from a number of courses focused on innovation, entrepreneurship and sustainable business, including specialist courses run by the [Centre for Innovation and Entrepreneurship](#). Our [MSc Innovation and Entrepreneurship](#) has been running since 2017/18 and explores the theory and the practice of running a creative, modern business. In 2022, we added to this by launching a new [LLM in Law, Innovation and Technology](#). Running for the first time in 2023/24, this new course will bring together legal knowledge with an understanding of the latest technological and business developments.

Support for enterprise and entrepreneurship also goes beyond the classroom, with dedicated support from the start-up specialists in the [Basecamp](#) team, based within the University's Careers Service. Basecamp offer mentoring, resources, and a range of support, including the annual New Enterprise Competition, which awards £50,000 each year to the best new and growing businesses from students, alumni and staff. [Winners in 2022/23](#) included a company using soundwave technology to grow cells in labs, a computer game company that combines board games with digital tech to help children with reading, and a mentoring support app company.

Our communities

A new cohort of [12 companies joined](#) the University's tech incubator [SETsquared Bristol](#) in February 2023. Through SETsquared, the University provides more than 80 companies in the city with bespoke business support, skills and training, an expert network, and a supportive community of start-up and scale-up businesses in the tech sector. The 12 new companies joining the programme range from green tech to healthcare innovation.

Leading voices in industry and academia joined over 300 guests representing over 95 companies and organisations at the University's [Festival of Enterprise](#) in 2023, a stimulating day of discussion and debate on the opportunities and challenges at the interface between research and the commercial world. As well as [keynote speakers](#) and [expert panel discussions](#) on the benefits and challenges of industry-academic collaboration, participants were able to meet our Enterprise Fellows and many of our teams who support enterprise and innovation.

Ourselves

The University has been [chosen as the host](#) for a new national supercomputer research facility focused on artificial intelligence (AI). This vital piece of research infrastructure will enable researchers and industry experts to drive new innovations in AI in areas from health to robotics to climate change. Drawing on Bristol's existing strength in AI and computing research, the new supercomputer, known as Isambard-AI, is expected to be the most powerful supercomputer in the UK when it opens in 2024.

In July 2023, the University signed a [formal partnership agreement with Science Creates](#), a Bristol-based deep tech ecosystem that helps scientists and engineers accelerate their ideas and build businesses from scientific discoveries. This agreement aims to establish the city as a global centre

for deep tech by combining the University's world-leading research with specialist incubator facilities, a network of strategic partners, and a dedicated venture capital fund.



**Total enterprise value
of spin-off firms that the
University retains shares in**
(Oxford Economics)



**(Royal Academy of Engineering
and Beauhurst "Spotlight
on Spinouts 2023")**

Goal 10: Reduced inequalities

Reduce inequality within and among countries

Our research

Published in 2023, the [Bristol Plan for Migrant Learners](#) offers recommendations to improve the support available to young displaced people and refugees. Working with professionals from across Bristol, a team from the University examined the support systems around young learners, identifying areas of key importance such as housing stability, and the need for a collaborative, coordinated approach.

Research at the University in 2022/23 has highlighted multiple areas where inequalities are having a significant impact on health and wellbeing outcomes. One area is the [failure of mental health services](#) to recognise the influence of social factors, particularly racism, both as a cause of mental ill-health and as a driver of poor treatment. Research also showed that [nearly half of disabled households](#) (48%) have struggled to keep their home warm and comfortable at some point this year, compared to 30% of non-disabled households. A significantly larger proportion of [unexplained infant deaths](#) occurred among children living in the most deprived neighbourhoods, according to new findings. All three studies led to recommendations around improvements to health, care, and tackling structural and social inequalities in order to improve health and wellbeing.

Our students

The University remains committed to the [decolonisation of our curriculum](#). Many of our

schools are actively working to change this, including the [School for Policy Studies](#) which has set up the Inclusive Curriculum Committee (ICC), in collaboration with students, to review teaching units from a broad EDI perspective. The [School of Biological Sciences](#) launched a project to decolonise and diversify the curriculum, working with students to review taught materials and understand staff and students' perspectives. The 3R framework – Rediscovery, Representation, Readiness – has since been created through this project to support others.

Students with disabilities can sometimes face additional challenges at university. At Bristol, we offer personalised [study support plans](#) to help each person with adjustments and support that meet their individual needs. We also have a dedicated [Disability Team](#) to help students access funding and specialist assistance such as notetakers, readers, and study skills tutors. Each School has a [Disability Coordinator](#) to provide students with subject-specific help, and training is available for all staff on supporting students with disabilities.

Our communities

The [Creative Connections](#) project, a collaboration between Bristol researchers and mothers from one of the city's most deprived areas, has resulted in a new campaign calling for parents' experiences to be more valued and their voices heard. The feedback from mothers affected by the COVID-19 pandemic was turned into artwork by a local artist, creating a

series of posters and billboards which were displayed around the city. The posters featured quotes from the mothers, raising awareness of the challenges families face in the wake of the pandemic and the ongoing cost-of-living crisis. Feedback from the group has since formed a [policy paper](#) advocating for change, focusing on parents as experts and the importance of listening to their experiences and needs.

Geological collections are unique resources that can connect us with the natural world, and with history. However, knowledge can be biased, focused on information and classifications shaped by the global north, and omitting cultural, historical or indigenous links. The [School of Earth Sciences' Global Heritage, Local History](#) project, running in 2023, aims to redress this balance by collaborating with diverse communities to recognise and reflect on the historical, cultural and colonial legacies that influence our understanding of artefacts such as stones, gems, crystals and minerals from India, Myanmar and Sri Lanka.

Ourselves

The University's Anti-Racism Steering Group was established in 2020 as a time-limited group tasked with identifying action and setting the strategic direction for [anti-racism across the university](#). In 2022, this evolved into the [Anti-Racism Working Group](#), which is refreshing our institutional commitments to anti-racism and finalising an evidence-based action plan. One part of this work was the development of a [new anti-racism training programme](#), with almost 1,000 staff participating in the first phase of the training. The suite of cultural competence training modules for staff has been extended to include supporting students from refugee, asylum seeker or other forced migration backgrounds.

Mentoring is a powerful way for students to be supported with building their confidence and preparing

for their careers after graduation, including planning for and applying to graduate roles and programmes. We have established a range of mentoring schemes across the University, including a new [trans and non-binary student mentoring programme](#) launched in 2022/23, a [Black mentorship event](#) in the Faculty of Engineering, and [peer mentoring](#) for first year undergraduates with an option to be matched based on a protected characteristic.



130

**Black and mixed-Black
heritage students supported by
the Black Bristol Scholarship
programme, totalling more than
£1million
funded by kind donations
of alumni and friends**

Goal 11: Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable

Our research

Bristol academics have collaborated with local cultural organisations on new ways to engage audiences through virtual and augmented reality. [Decolonising Memory: Digital Bodies in Movement](#) brought together collaborators' expertise in dance and digital creative technologies with University research around enslavement and public memory. An augmented reality app enabled people to explore sites and landmarks in the city which have connections to the histories and legacies of transatlantic enslavement. Another collaboration, with Bristol Museum and Art Gallery, created a [virtual reality app](#) which takes users on a journey back in time to Ancient Greece where they can experience first-hand what it was like to consult the Oracle of Dodona.

A new tool to [assess urban development proposals](#) for their effect on health was developed by University researchers in 2023. Working with colleagues at the University of Bath, the tool evaluates 28 factors across a wide range of areas including buildings, transport, air pollution, green spaces, and infrastructure for how they might impact the health of future residents in new urban spaces. The study forms part of [TRUUD](#), a larger project focused on tackling the root causes of health inequalities and challenges that relate to urban development.

Our students

The University's [MA in Black Humanities](#) is a unique programme offering students the opportunity to explore the global histories, philosophies, languages, literature and art of people of African descent. The course also considers issues around systemic racism and social justice in historical and contemporary contexts, including Bristol's own legacy and challenges in relation to the trafficking of enslaved African people. Situated within the University's [Centre for Black Humanities](#), students can access diverse perspectives from across the arts and humanities fields.

A number of [special collections](#) are held at the University, across the areas of art, architecture, geography, literature, medicine, music, politics, religion, and wildlife. These rich and diverse collections include printed books, journals, archival material, and artefacts dating from the 11th century to the present. They are open to students as well as staff and visitors, and can be used for reference or research free of charge. In 2023, [digitised versions](#) of some collections formed part of [The Uncertain Space](#), a new virtual museum launched by the University to share some of the public artworks and other items held by the University with our community and beyond.

Our communities

Bristol is a [UNESCO City of Film](#), in part due to the role the city has played in wildlife film-making since the establishment of the BBC Natural History Unit. In 2023, the University's [Wildlife Filmmaking Oral Histories Collection](#) was added to the UNESCO Memory of the World programme, a register of significant documents from across the globe, catalogued for future generations to learn from and enjoy. The Collection is a series of oral history video interviews and transcripts with wildlife filmmakers which were recorded between 1998 and 2011. They represent a unique and significant piece of our national documentary heritage.

[Injurious Effect](#), a new artwork embracing the industrial and societal history of the location of our [Bristol Digital Futures Institute](#) in Temple Quarter, went on display in 2022. A local artist used accounts from residents in the Barton Hill History Group, interviews with local historians, and oral histories of the gas works in Avon Street to create an audio artwork and sculpture inspired by the Wardian Case, popular in Victorian homes to protect plants from perceived pollution from gas lights. The artwork explores the relationship between innovation, the fears and perceptions of technology, and societal change, prompted by the history of the building that was the former headquarters of the Bristol Gas Company.

Ourselves

Our [Travel and Transport Delivery Plan](#) aims to mitigate the impacts of transport by reducing demand and reliance on motorised modes through smart working practices and campus development, making sustainable travel the first choice for all essential commuting and business journeys, and improving the efficiency of operational and supply chain transport. We offer advice, practical support and incentives to staff and students to encourage the use of

sustainable travel, and in 2023, [82% of staff and 86% of student journeys](#) were being made by sustainable modes of transport.

Construction work began in May 2023 on the University's new [Temple Quarter Enterprise Campus](#), a £500 million investment into new facilities for education, innovation and research. The new campus, due to open in 2026, is being built on brownfield land, the site of the former Royal Mail sorting office, and forms a central part of the wider redevelopment of the Temple Quarter area of the city. The campus will house 4,600 students and 650 staff along with business and community partners, and will include new walking and cycling paths that join the city centre to the east of Bristol.



**carried on our U1 & U2
Unibus services in 2022/23**



Screenshot from the Decolonising Memory augmented reality app - Queen Square, Bristol

Goal 12: Responsible consumption and production

Ensure sustainable consumption and production patterns

Our research

The [Sustainable Production and Consumption and Inclusive Economy](#) research group within Bristol Business School is focused on research that answers big social questions around transitioning to sustainable consumption and production in a way that is inclusive and equitable. In 2023, members of the group shared research on [overstocking and increased production](#) in response to “just in case” approaches, with proposals for reducing the environmental impact of the production of certain key goods, as well as research into production and consumption in the [agri-food sector](#).

Members also undertook research into sustainability and the [role of consumers](#) in driving more sustainable consumption, while one member joined a colleague at the [University of Nottingham](#) to deliver a [video series](#) on food supply chains, sustainability, business practices and consumer choices.

Our students

November 2023 was [Sustainability Month](#) at Bristol Students' Union. The Union ran a series of events throughout the month including a sustainability themed pub quiz, volunteer gardening sessions, a plant and sustainability fair, a tree walking event, arts and crafts sessions, and talks on topics including plastics, going plant-based, decarbonisation and

social justice, and activism. A Book Swap and Swapshop were also set up in the Union building, with books, non-perishable food and clothing all available.

The Union also organises other opportunities for students to take collective action and make a sustainable impact. The [Donate Your Plate](#) campaign takes place over the Welcome period each year, with students moving out of residential halls in the summer donating their unneeded kitchenware, which can then be given out to new students in September.

Students who wish to focus on socially responsible business practices can take our intensive one-year [MSc Management](#) with a specialism in corporate social responsibility (CSR) and sustainability. This course helps those in, or with ambitions to enter, roles as senior leaders to gain valuable insight into the theory and practice of sustainability in management.

Our communities

For our [Community Apple Day](#) in September 2023, we teamed up with local business [The Cider Box](#) to reduce the wastage of garden and allotment apples at the end of the season. Working with community organisations [Lockleaze Community Hub](#), [Hillfields Community Garden](#) and [Bramble Farm](#), Bristol residents brought their waste apples to be pressed into juice. We rescued a remarkable 1025 kg of apples from unnecessary waste, yielding 460 litres of apple

juice, poised for transformation into an authentically Bristolian cider, with the apple waste happily devoured by the pigs at Bramble Farm.

[Bristol Composites Institute](#) are focused on delivering sustainable solutions to the design and manufacturing of composite materials. In 2022, they launched the [Composites Perspectives Series](#) of free public talks by experts in the field of composite materials on the latest thinking. Sessions explored areas including the role of composites in reaching Net Zero, improving composite manufacturing to achieve zero waste, circularity and recycling in composites, and new ways to produce sustainable composites. Sessions were also shared on [YouTube](#).

Ourselfs

Our [Circular Economy Strategy](#) sets out our ambition to manage our waste as sustainably as possible. We look for opportunities to reuse or recycle waste where we can, for example through our internal [Re-Store scheme](#). Re-Store is modelled on sites like Freecycle and provides departments with a way to share and find furniture and other items for reuse or recycling. Items that do not find a home through Re-Store are offered to partner charities for resale.

A key part of our waste management has been tackling single use plastics on campus. Our single use plastic action plan and [Sustainable Food and Beverage Policy](#) set out ambitious targets for plastic reduction within our dining and catering. [By 2023](#), single-use plastics had been eliminated from in-house dining areas, and campus catering had succeeded in moving 90% of products to reduced plastic alternatives.

We also work with local organisations such as the [Children's Scrapstore](#), who reuse scrap material such as paint donated from University maintenance and construction jobs as a low-cost creative play solution for local children's groups. We give unneeded wood to the [Bristol Wood Recycling Project](#), a

not-for-profit social enterprise that works to provide affordable timber to the local community, and we donate abandoned bicycles to the [Bristol Bike Project](#) or to [Life Cycle UK](#), who repair and rehome bicycles and encourage people to take up cycling, including those from disadvantaged backgrounds. Where we are not able to reuse or recycle, we use offsite recovery and energy generation technologies, meaning that less than 0.5% of our overall waste currently ends up in landfill.





Goal 13: Climate action

Take urgent action to combat climate change and its impacts

Our research

The University's [Cabot Institute for the Environment](#) is at the forefront of research on understanding and addressing the climate crisis. Research published in 2022 by the Institute revealed the potential impact of climate change on [super cyclones in South Asia](#). Using sophisticated modelling, and working with local scientists, the researchers found that if gas emissions continue at present levels, sea levels will rise, causing extreme weather events, severe flooding, and many more fatalities. Similar findings were also shared in 2023 by Cabot Institute researchers looking at [flood risk in the UK](#), who found a greatly increasing likelihood of extreme rainfall events over the next 60 years if action is not taken on emissions.

Researchers at the Cabot Institute also found that [record-breaking heatwaves](#) are likely to cause significant harm in socio-economically vulnerable regions such as Afghanistan, Papua New Guinea, Beijing, Central America and Central Europe. The study in 2023 found that countries are most at risk where they have not experienced intense heatwaves yet, because adaptations are usually made after events occur. Increasing temperatures, growing populations, limited healthcare and limited energy provision add to the challenges in these areas, and the researchers recommended action plans are developed now to minimise harm.

Our students

Bristol offers several programmes and units that address the challenge of tackling the climate crisis. Our [MSc Society, Politics and Climate Change](#) is designed specifically for students who aspire to professional careers addressing climate change in the private, public or non-profit sectors. It explores the complex issues around climate change and the economy, international relations, development, resilience, social movements and the green transition, and includes the option for students to work on a real research project for a partner organisation.

Students at Bristol are also applying their learning on climate change in very practical ways. In 2023, the [School of Education](#) ran its second [Climate Justice Challenge](#), inviting students and staff to become Ambassadors, helping to create a sense of community around efforts to address climate change, and to share stories of active steps that individuals can take to make a difference. Students from the wider University have also engaged through Climate Action Bristol (CAB), [volunteering with local organisations](#) to develop and implement Climate Action Plans.

Our communities

Our [Cabot Institute for the Environment](#) sent three leading researchers to the [Conference of the Parties 27 \(COP27\)](#) in Egypt in 2022. As the Institute has observer status with the United Nations Framework

Convention on Climate Change, our researchers had the chance to engage with policymakers and climate policy experts from around the world to help promote climate action which is informed by the best evidence and research. Their expertise ranged from developing climate science to inform and advance climate change policy, to ensuring a just transition to a net-zero economy. This was accompanied by local artists digitally showcasing an array of [thought-provoking artwork](#) capturing people's thoughts and experiences of climate change, and their messages to leaders at the conference.

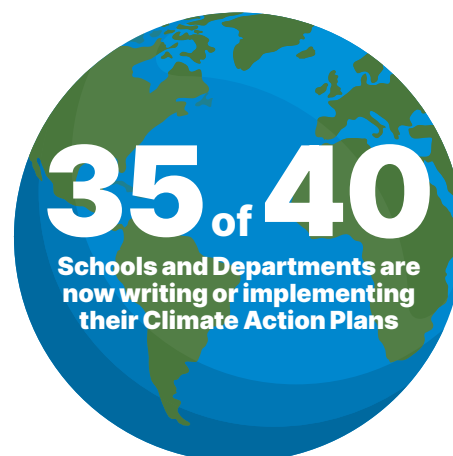
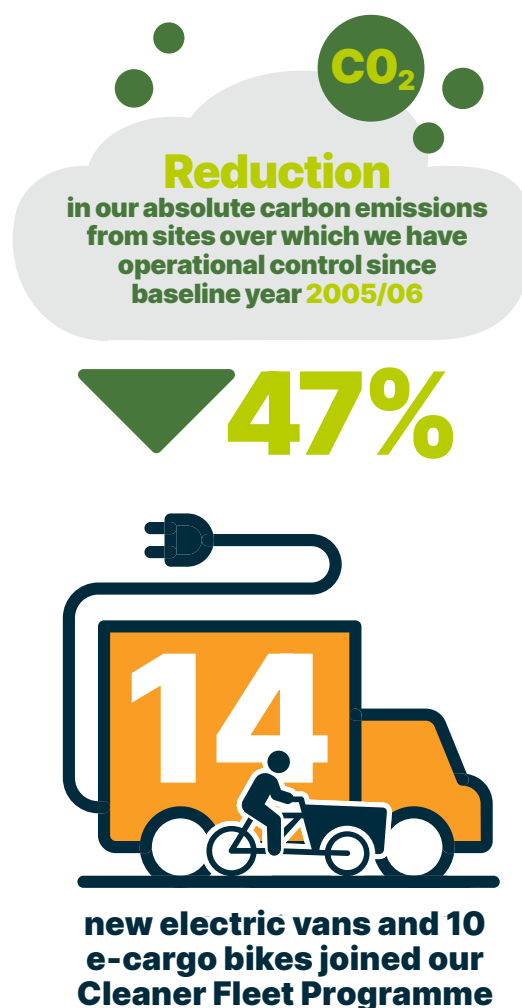
Ahead of the next event, [COP28](#), held in Dubai in 2023, A-level students from Bristol's state schools participated in a [Mock COP event](#), organised by the Cabot Institute and designed to mimic the international climate negotiations held by the UN. Mock COPs are a semi-structured role-play intended to educate participants on the complexities of climate negotiations, the kind of actors involved, and the scale of the problems faced. Facilitated by postgraduate students, young people from different schools represented a nation or organisation, navigated their group's aims and the interests of other delegations, before finally voting on key negotiation issues.

Ourselves

We are working towards decarbonising energy use and improving efficiency, with a focus on lowering scope 1, 2 and 3 emissions through our [Carbon and Water Strategy](#). By 2022/23, we had reduced our carbon dioxide emissions from buildings by 47% on our baseline year 2005/06, and increased our solar capacity by nearly 100kW to just under 500kW across several University sites. We measure our carbon to ISO 14064, to ensure transparency and enable international comparison, and have [an eight-point plan](#) for continuing to reduce our carbon emissions in future.

The University's efforts to address our own activity as an organisation and an employer [were recognised](#) when we rose four places to 16th in the People & Planet University League 2022/23, which ranks UK

universities based on their environmental and ethical performance. Bristol received a 1st class grade, an accolade received by just 27 institutions in the ranking. The ranking result reflected efforts by the University to address challenges around staffing sustainability work, environmental management on campus, education around sustainability, ensuring workers' rights, and sustainability in food provision.



Goal 14: Life below water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Our research

Researchers from the University's [School of Biological Sciences](#) have used [data from fisheries surveys](#) of areas ranging from southern Portugal to northern Norway to examine factors determining where fish species are found. The study, published in 2023 and undertaken with partners at Exeter University, confirmed temperature as a key driver of variation in where fish assemble, with the most profound effects seen further north. Predictive models will now be able to help scientists, and the fisheries industry, understand the impact on fish populations of rising sea levels and temperatures due to climate change.

A Bristol-led collaborative research project has used artificial intelligence (AI) and satellite modelling to measure the [thickness of Arctic sea ice](#) across a full year for the first time. Previous satellite modelling has only been possible over the winter period, but with the addition of AI, models can now predict likely sea and ice conditions in summer, offering valuable insights into climate change and contributing to improved weather forecasting and shipping safety.

Our students

The University's [MSc Water and Environmental Management](#) offers students the opportunity to specialise in addressing water and environmental

challenges at local and global levels. The course combines practical skills with academic understanding, covering data science and artificial intelligence, sustainable systems and disaster resilience. Staff include expert practitioners and leading academics, leaving students equipped with the technical and managerial skills to contribute to sustainable management of environmental and water resources.

In summer 2022, the University's [Department of History](#) organised a summer school for doctoral and postdoctoral students from across Europe on the theme of [Rethinking Water in Environmental History](#). Supported by the European Society for Environmental History, the event explored the relationship between water and human society, and how use of water bodies changed over time through the use of technology, management, and governance.

Our communities

A provocative [environmental artwork](#) exploring plastic pollution in our oceans was displayed in the University's Royal Fort Gardens in September 2023. The sculpture by eco-artist Wren Miller is shaped like a wave, 4 metres high and 6 metres wide, and is filled with 90kg of waste including plastic bottles, cans, face masks, plastic aprons, and scaffolding nets. Such items are often thrown away as litter,

ending up in rivers and seas where they break down into microplastics and cause harm to wildlife and the environment. The piece is designed to prompt conversations among staff, students, visitors and local people, and is part of the wider Bristol's Binning campaign to reduce littering in the city.

Researchers at Bristol's [Cabot Institute for the Environment](#) shared information on the impact of wet wipes on our waters via an article in [The Conversation](#) in April 2023. The article, written for non-expert readers, explained how flushing wet wipes down the toilet, which nearly 25% of people admit doing, impacts water systems and the environment as plastic pollution in our rivers and seas. It offered suggestions for people to look for reusable, washable alternatives, and for manufacturers to label products to better enable consumers to make sustainable, environmental choices.

Ourselfs

The University's approach to sustainable water use is set out in our [Carbon and Water Strategy](#). The strategy notes our legal and regulatory obligations in relation to [protecting against contamination](#), waste, or misuse of water, as well as setting out our institutional ambitions to reduce water usage and increase efficiency. We follow [UK government guidelines](#) on water discharge standards and our wastewater is treated by [Wessex Water](#), who process this in their water recycling centres. The treatment process protects ecosystems, wildlife, and human health and welfare, ensuring that our cleaned wastewater is safe to release into local rivers.

We also introduced a new [Sustainable Food and Beverage Policy](#) in 2022, focused on sustainability in campus catering outlets, hospitality, and student provision. The policy includes ambitions to reduce the amount of animal-based produce served, and to encourage people to make healthy, sustainable choices. It committed us to achieving Marine

Stewardship Council re-accreditation, to confirm that all fish served on campus is sustainably sourced, [which has since been achieved](#).



Image credit: Steve Simpson



'Another Wave is Possible' by Wren Miller on display in Royal Fort Gardens



Researchers measuring the thickness of sea ice in the Arctic. Image credit: Alfred-Wegener-Institute / Esther Horvath

Goal 15: Life on land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Our research

A pioneering global study, published by Bristol researchers in March 2023, has shown that [rates of deforestation](#) are fast outstripping efforts at forest regrowth. As well as providing vital ecosystems, these tropical forests have a significant role in tackling carbon emissions and climate change. The University's [Cabot Institute for the Environment](#) and partners at Brazil's National Institute for Space Research used satellite data to examine deforestation and forest lost or damaged by human and environmental activity such as fire and logging. Their findings will now help inform policymakers and scientists seeking to conserve and protect these vital areas.

Researchers from [Bristol Veterinary School](#), in collaboration with the University of Western Australia, have shown how [providing water sources in residential gardens](#) helps wildlife thrive. The study compared the quantity and variety of wildlife visiting urban lake water sources and residential gardens in England, and found there was no difference in the number of smaller species of wildlife visiting urban lakes and residential gardens, nor among individual water source types. Their results reveal garden water

sources are as vital as urban lakes for supporting wildlife, particularly during periods of hot, dry weather.

Our students

[Bristol Veterinary School's](#) unique [MSc Wildlife Health and Conservation](#) programme is offered in partnership with Bristol Zoological Society. Students gain practical skills, experience and academic understanding of areas including animal rehabilitation care, the effects of human activities and climate change on wildlife, supporting endangered species, and enabling reintroductions into the wild. The course has been carefully designed to support graduates into roles in wildlife health, conservation and management.

The University's [Cabot Institute for the Environment](#) and [Elizabeth Blackwell Institute for Health Research](#) have partnered to [fund three new PhD students](#) exploring the impacts of climate change on health. The three students, who started their studies in 2023, are looking at how health and health inequalities are considered within local climate change strategies, heatwaves and heat adaptations in low-income communities in Ghana and South Africa, and the impacts of heat stress on pregnancy in different species.

Our communities

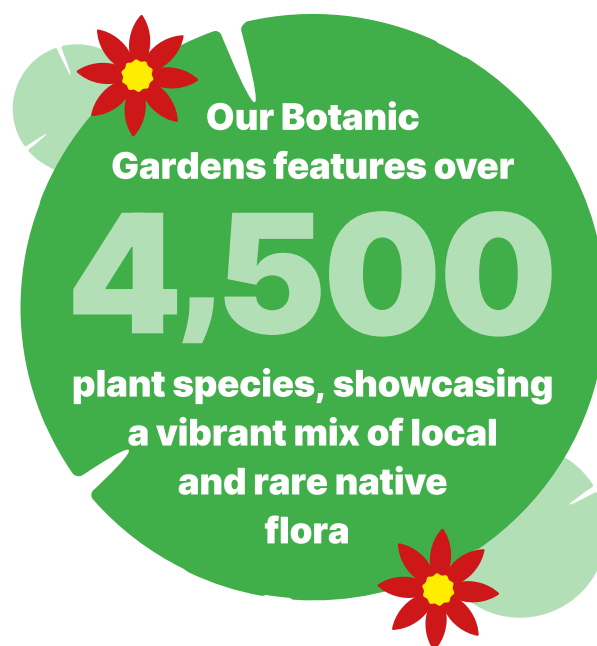
The University of Bristol-led [CONNECTED Network](#) has trained 21 plant scientists from 11 countries in vector and virus diagnostics in Nairobi, Kenya. The course gave participants specialist knowledge enabling them to identify which virus is devastating a plant and which insect is carrying it. CONNECTED aims to create real impacts on plant health internationally by upskilling many more lab analysts, researchers, plant health inspectors and officers, and embedding interdisciplinary knowledge within the agricultural systems of several African countries.

Given Bristol's reputation as a green city, there are many opportunities for local communities to engage with the University on nature and the environment. City-wide events in 2022/23 included the [Festival of Nature](#), which celebrated its 20th anniversary with sessions including the Wild Weekend on the Harbourside, to which University researchers contributed. Other, University-run events included the [Barton Hill Family day](#) at our micro-campus, and the [Bee and Pollination Festival](#) at the Botanic Gardens.

Ourselves

The University estate spreads over 1,000 acres and includes two farms, [Bristol Botanic Garden](#), scrub, woodland, species-rich grassland, and open water – habitat types of local and national importance. Our trees are an integral part of that landscape, and many are long-lived, providing environmental, social and economic benefits that are realised over many generations. Responsible stewardship of our campus is a priority, and close to 5,000 trees have been tagged, mapped and documented on our University GIS-based tree management system, representing nearly 670 different species and cultivars. A [web-based map](#) has also been created, to share the locations and names of trees within our gardens with staff, students, visitors and the public.

The [Royal Fort Gardens](#), dating from the 18th Century and situated in the heart of the main University of Bristol campus, are a popular recreational spot for staff, students and the public. They feature pieces of public art alongside a pond, trees, and biodiverse habitats, including a wildflower meadow which was planted as part of the My Wild University project to help boost the number of pollinators. In 2023, the Gardens received a coveted [Green Flag Award](#), officially recognising them as one of the country's best parks.



Goal 16: Peace, justice and strong institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Our research

Within [Bristol Business School](#), two research groups are focused on issues of governance. The [Public Services Governance and Management](#) group examines governance of public services by public sector, private, and non-profit organisations, with a particular focus on the healthcare sector. The [Accountability, Sustainability and Governance](#) group looks at broader issues of accountability and governance, with research in 2022/23 covering areas such as corporate biodiversity disclosures and Board gender diversity, the impact of shareholder activism on corporate actions, and corporate social responsibility reporting practices.

Researchers at the University have uncovered new information on the links between social media and political tensions in two studies published in 2022 and 2023. The first, with partners in Germany, examined [global studies](#) into the use of digital media, concluding that social media can be beneficial in emerging democracies, but destabilising in established ones. The second study, with partners in Germany and Austria, examined [posts on social media](#) platform X (formerly Twitter) from members of

the US Congress over the past decade. They found that since 2016, Congresspeople from both main parties shared more of their opinions and beliefs online, but that those from the Republican party were more likely to be linked to low-quality or untrustworthy sources. Both studies recommended ways for the public, and governments, to increase understanding of misinformation and digital destabilisation.

Our students

Students at [Bristol Law School](#) took part in a cross-examination exercise with officers from Avon and Somerset Police in early 2023. The exercise saw each student lawyer cross-examine a police officer from the force who specialises in investigating crimes against children. The exercise, which formed part of the officers' training, aimed to ensure that they had followed guidance and procedure on interviewing children, while also giving students the opportunity to gain skills, insight, and practical experience in this specialist area.

The [Law School](#), in collaboration with the University's [Professional Liaison Network](#) (PLN), has also been able to offer a record number of students access to a professional mentor during the 2022/23 academic year. [Five mentoring schemes](#) are available to law students, including the new [Burgess Salmon Diversity Mentoring Scheme](#), which aims to help tackle the imbalance of representation from minority ethnic groups in the legal profession by offering legal work experience and networking to underrepresented groups. There has also been an increase in the number of firms, chambers and organisations offering mentors for the scheme, with over 100 mentors participating across all schemes, many of whom are Bristol Law School alumni.

Our communities

In advance of the UK government's development of a White Paper, three academics from our [Law School](#) submitted written evidence to the House of Commons Science and Technology Committee inquiry on [Governance of artificial intelligence \(AI\)](#). This evidence, which was published in early 2023, offered expert perspectives on the adoption of digital technologies by the public sector, the use of AI to manage people at work, and regulatory reform to protect citizens from unfair algorithms which could be used by some public bodies in automated decision-making.

The [University of Bristol Law Clinic](#) offers free legal advice to members of the local community who cannot afford a solicitor in areas including housing, employment and welfare benefits. All advisors at the Clinic are current Law students who work under the supervision of qualified solicitors. In 2023, the Clinic supported the Save Redfield Cinema group in its campaign to [save St George's Hall](#), a former art deco cinema, from redevelopment. As a result, the building had its Asset of Community Value (ACV) status upheld.

Ourselves

Acknowledging and addressing historic injustices is a necessary and important part of building peaceful, sustainable communities for the future. In 2022, the University [opened a consultation](#) seeking views on seven University buildings whose names linked directly or indirectly to the transatlantic trade of enslaved African people. More than 4,000 responses were received, and in late 2023, the University pledged £10 million to develop [Reparative Futures](#), a programme to address racial justice and equality in the University and the community.

In 2023, Bristol marked the [one-year anniversary](#) of the twinning of the University with the [National Aerospace University: Kharkiv Aviation Institute](#) in Ukraine as part of a programme to support higher education institutions impacted by the ongoing conflict in the region. The initiative has involved a range of coordinated events from maths training schemes to English lessons, the sharing of resources and technology, and collaboration on research. It is intended to support students and staff from Ukraine, and to help them continue their learning and their research through this challenging period.



Goal 17: Partnerships for the goals

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Our research

In 2023, the University joined with partners in South Africa and Mozambique to lead a project improving early warnings and resilience to tropical cyclones in southern Africa. Resilience and Preparedness to Tropical Cyclones across Southern Africa ([REPRESA](#)) is a £4.8 million international collaboration focusing on the impact of climate-related weather events in Madagascar, Malawi and Mozambique. It is part of the Climate Adaptation and Resilience ([CLARE](#)) initiative between the UK and Canadian governments, and will involve sharing best practice around forecasting and governance structures with local communities.

Bristol researchers have [partnered with](#) academics from the UK, Canada, Ukraine, India, and Côte d'Ivoire to lead an [international project](#) on global HIV infection rates. The project, which was started in 2023, aims to transform global responses to HIV by gathering evidence and offering policy tools for addressing structural factors such as unemployment, homelessness, stigma, violence and criminalisation which limit the impact of existing HIV prevention strategies for key risk groups.

[sustainable development](#) into the learning outcomes and experience of every University of Bristol student. Supported by our [Sustainability Team](#), every academic School is systematically assessing the baseline of content already included in degree programmes, and academic staff are working to identify relevant additional content, where to include it, and a timeline for doing so. So far, around half of the academic Schools have completed this process, including Physics, Anthropology, Medicine, Innovation and Civil Engineering.

We are an active supporter of the [1 in 5 project](#), which engages students in issues of biodiversity and climate and environmental change through final year projects. We encourage [all programmes](#) to offer relevant projects, and support students who wish to focus their projects in this way. Examples of [undergraduate projects](#) and dissertations in 2022/23 include investigating the environmental sustainability of thin film solar panels for renewable power generation in space, and developing a new generation of electrochromic films for smart windows to reduce the energy consumption of buildings.

Our students

Embedding sustainability is a cross-cutting theme of our current [University Strategy](#), with an objective to integrate discipline-relevant aspects of [education for](#)

Our communities

Carbon emissions and unemployment have both fallen significantly in Bristol over the past decade, according to a new report published in 2022 to hold the city

to account for its [progress in achieving the UN Sustainable Development Goals](#). Within the report, led by our [Cabot Institute for the Environment](#) and Bristol City Council, the progress check, which measures how Bristol is meeting the SDGs, also highlights areas of growing challenge, including social inequalities and poverty, which were exacerbated by the pandemic and look set to deepen with the cost-of-living crisis.

[FUTURES 2023](#) is a festival of discovery, organised by the University and partner universities across the South West, with cultural partners such as the [SS Great Britain](#), and the [Holburne Museum](#). It is the largest showcase of research in the region, with over 127,500 people engaging with more than 350 researchers across 26 public, face-to-face and online events. Alongside family and school fairs, talks, virtual exhibitions, social media takeovers and creative workshops, the Festival offered innovative ways of engaging with research, such as community radio shows which were co-produced between listeners, researchers and radio producers.

Ourselves

The University has strengthened our partnership with the University of the West of England, City of Bristol College, Bristol City Council, and the City Office through the signing of a [Civic University Agreement](#) (CUA) in 2023. At the heart of the CUA is a desire to ensure that the local population benefits from the thriving further and higher education sectors in Bristol. This partnership delivers many positive benefits to the city of Bristol including new jobs, apprenticeships, research collaborations and educational opportunities, and provides a strong foundation to work more closely together, using our combined resources and networks to make Bristol fairer, healthier, and more sustainable.

Following the inclusion of our civic mission as the third pillar of the [University strategy](#), the Civic Engagement team was established in 2023 within the new Global

Engagement division. The team is responsible for overseeing the delivery of the global civic pillar, which aims to make a positive impact via the full range of the University's activities. An Associate Pro Vice-Chancellor Global Civic Engagement was also appointed to champion the global benefits and opportunities that we, as a university embedded in our city and region, offer colleagues and external stakeholders.



Futures festival 2023 event at the SS Great Britain.
Image credit: Jon Rowley



Left to right: Jenny Foster, Global Goals Centre; Marvin Rees, Mayor of Bristol; Allan Macleod, Bristol City Office; Dr Sean Fox, University of Bristol

