

OUR PROGRESS

TOWARDS THE UNITED NATIONS' SUSTAINABLE DEVELOPMENT GOALS

2023/24

Foreword

This report comes at a pivotal moment. 2025 marks a decade since nations committed to achieving the UN Sustainable Development Goals (SDGs) by 2030, yet global progress remains slow. Against this backdrop, universities play a vital role in advancing sustainable development, acting as hubs of innovation, learning, and civic responsibility. At the University of Bristol, our commitment to the SDGs is deeply embedded in our ethos. We recognise that the challenges we face – climate change, inequality, conflict, and systemic injustice – demand rigorous research, transformative education, and bold collective action.

Our civic mission has been strengthened by the development of the Temple Quarter Enterprise Campus (TQEC), designed with civic engagement at its core. TQEC has transformed how we collaborate with partners, recruit and support staff, and engage in local networks. It laid the foundation for our civic strategy and the Barton Hill Micro-campus, a unique space embedded in the community. Our commitment to inclusive growth is reflected in a local procurement strategy that doubled local spend to £57 million, and in the work of our award-winning Apprenticeships and Employment Outreach team. Our Reparative Futures programme underscores our resolve to address historical inequities and shape fairer futures.

We continue to expand access to education through guaranteed offers for local students, targeted outreach, and Foundation programmes. Our Access to Bristol scheme reaches 700 students annually, and 40% of

Foundation participants since 2013 have come from the local area. Ninety percent of PGCE graduates remain within an hour of Bristol, strengthening local schools. Civic engagement also enriches student experience: last year, students completed 30,000 hours of volunteering, supported SMEs through internships, and contributed to hundreds of legal cases via the Bristol Law Clinic.

As we look ahead, we do so with urgency and optimism. At a time of complexity and uncertainty, we remain resolute in driving sustainable development locally and globally, as an institution with civic engagement at its heart. Together – across disciplines, sectors, and borders – we can achieve more. We hope you find evidence of this determination in the following pages and invite you to join us in accelerating SDG action over the next five crucial years, as we work toward a fairer, greener, and more sustainable future for all.

Professor Michele Acuto

Pro Vice-Chancellor
(Global Engagement)

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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/

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Goal 1: No poverty

End Poverty in all its forms everywhere



Our research

A team from across the University has developed a **net-zero vulnerability index** for the UK, thanks to funding from the University's Bristol Poverty Institute. The researchers looked at the consequences of net-zero for social justice and poverty, particularly how necessary economic changes may impact different areas of the UK. They identified **old industrial areas, and some coastal and rural areas** to be at most risk, raising the importance of localised mitigation in approaches to reaching net zero.

Research from Bristol has uncovered that **38% of households in Scotland** felt their energy bills are unaffordable in late 2023, with 85% having to take actions in the previous 6 months to try and reduce their energy costs. Actions included using less heating, doing less cooking, and having fewer baths and showers. 17% of households were found to be in serious financial difficulties, with 38% of householders reporting impact on their mental health, 37% reporting sleep problems, and almost half (47%) reporting that they felt very or quite worried for their financial future.

Our students

Student poverty was a **priority area** for the Bristol Students' Union in 2024, with the Union and the University working in partnership to **secure £540k of additional support** for a range of initiatives. **These included** a housing advice service, subsidised food offers, a hardship fund to support student club and

society activities, free and low-cost welcome events for new students, free sexual health provisions and testing services on campus, and the SU swap shop providing a way to swap pre-loved clothing.

There are over 80 bursaries, scholarships and sources of **financial support** that current and prospective students at the University can apply for. Many of these are for students in financial need who would otherwise be unable to study at Bristol. These include the **Futures scholarships** for students from a household with an income of less than £50,000, and the **Commonwealth Shared Scholarships** for students from a Least Developed and/or middle-income Commonwealth country who would not otherwise afford to study in the UK. Several of our bursaries and scholarships are **funded by donations** from friends and alumni of the University who are keen to support the next generation of students.

Our communities

A Bristol academic has been **asked to help advise** the UK government on tackling child poverty. Professor David Gordon, Director of the Bristol Poverty Institute and Professor of Social Justice, joins the **Child Poverty Analytic Expert Reference Group**, alongside his Bristol colleague Sara Davies, Associate Professor in Household Finance. The group brings together external expertise in the area of child poverty to support and advise the work of the government's Child Poverty Unit in its development of a Child Poverty Strategy.

In June 2024 the Bristol Poverty Institute welcomed a diverse range of delegates to their annual conference. This year's event, titled **Poverty and Social Justice in a Post-COVID World**, focused on understanding how the global pandemic has impacted different dimensions of poverty, and what can be done to improve lives in a just and fair way. The two-day event saw more than 120 attendees from different sectors and organisations come together to share and learn, with speakers from 12 countries across five continents.

462

students received a philanthropically funded scholarship in 2023/24

ensuring those who may face multiple barriers to higher education can take their place at the University and thrive during their time here

Ourselves

Collaboration is a key part of the University's work to support local and regional businesses. **MyWorld** is a partnership between 13 diverse organisations from academia and industry to support and grow creative technologies in the West of England. Led by the University of Bristol and funded by UKRI, this collaborative programme has already generated more than 700 new jobs and boosted the regional economy by £223m. In 2024, it helped seven pioneering projects to secure a share of **£1.2m in funding** from deep tech innovation organisation **Digital Catapult**. Projects included one to develop immersive audio experiences, one centred on improving livestreaming technology for creative performances, and one looking at the use of AI in gaming.

Money worries can be a major source of stress for staff and so the Staff Development team published a set of financial wellbeing resources on the staff intranet in 2024. It brings together all the options for financial support that the University offers its staff, including financial wellness surgeries with local independent financial planning practitioners, training workshops on financial and future planning, and a financial counselling and information service. Staff are also able to take advantage of a range of discounts, and the University provides initiatives to make commuting more sustainable and cost efficient, as well as giving access to two Great Western Credit Union financial services.



Professor Esther Dermott welcoming attendees at the BPI Conference 2024
Image credit: Dr Lauren Winch, BPI Manager



Full-Time Officers, Mia Stevens, Linlu Ye, and Bakhtawar Javed

Goal 2: Zero hunger

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

Our research

Ultra-processed foods (UPF) currently account for around two-thirds of the calories consumed by UK adolescents, **according to researchers** from Bristol and partners at Cambridge University. Their study found that young people from deprived backgrounds had the highest rates of UPF consumption, along with those from white ethnicity groups and those from the north of England. UPFs have been linked to health challenges such as obesity, diabetes and cancer.

A **University study** uncovered the extent of food bank use by struggling families in the face of the national cost of living crisis. **The research found** that there are now more than 4,000 school-based food banks in England, supporting pupils as spiralling energy costs and food prices put family finances under strain. Researchers highlighted that low-income families in deprived areas were most vulnerable to food insecurity, with schools stepping in as a safety net to provide support that ranged from discrete food parcels up to full pantries offering free food, household products, laundry services and clothes.

Our students

The Students' Union and the University worked together on a number of initiatives to ease the national cost of living crisis for students. In

December 2023, the Union ran a Cost of Living Cooking Series focused on promoting cooking safety and food cost reduction for students, with Union officers sharing **low-cost, healthy recipes** via social media. Campus food outlets also offered **subsidised meals**, and the Union's swap shop became a **community larder**, offering free canned and non-perishable food for students facing hardship.

January 2024 saw students from the **School of Sociology, Politics and International Relations** take part in their annual Hackathon, with this year's event seeking **solutions to food insecurity**. Organised in partnership with social organisation **Transform Society**, the two-day event saw students coming up with ideas such as new volunteering spaces on campus, a time-banking community hub, ways to diversify food bank donations, engaging with local food companies, and the creation of a community kitchen.

Our communities

The Bristol Poverty Institute, **Bristol Researchers Food Justice Network** and the **Cabot Institute** partnered with local organisation **Feeding Bristol** to hold a **Food Justice Workshop** for the community in July 2024 as part of Food Justice Fortnight.

The event brought together researchers and community groups to promote **collaboration and meaningful change** in the city around inequality, lived experience and food justice.

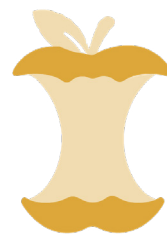
Researchers from Bristol launched an **interactive map of Meals on Wheels** providers in November 2024, offering information and helping people locate services that deliver to their area. **Developed by a research team** from the **School for Policy Studies**, the map is a free resource for older people and their families, vulnerable and disabled adults, and health and social care professionals.

Ourselfs

In 2023, the University's Source Catering team received a Gold Award from **Bristol Eating Better**, a local scheme that recognises food outlets that provide healthy, sustainable food options and work to reduce their own impact on the environment. Following this award, our cafés and food outlets across campus have continued to reduce sugar, salt and fat in foods, increase options for fruit, vegetables and fibre, reduce carbon and food waste, and support biodiversity, ethical practices and animal welfare. Additional steps were taken to reduce our ruminant meat procurement to just 0.9% of our overall food purchases in 2023/24, with the aim of further reductions in future years to positively impact sustainability and animal welfare goals.

Our **Sustainable Food and Beverage Policy** was updated in 2024 to reflect progress, address new priorities and refresh our goals. New objectives focused on further reducing food waste and packaging, and ensuring more produce are sourced responsibly and sustainably. The University's **Fairtrade Policy** was also updated in 2024, renewing our commitment to supporting fair conditions and sustainable supply chains.

**23%
LESS**



less student meal-generated waste across catered halls in 2024 compared to 2021

100%



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

**42,310
portions**

of discounted 'soup and a roll' and hot meals served by on-campus cafes as of June 2024



Winners of the food security hackathon collect their certificates with James Darley, CEO of Transform Society

Goal 3: Good health and well-being

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

Our research

Healthcare and wellbeing have been transformed by developments in technology in recent years. The University of Bristol has made significant contributions to this via our research that seeks to improve patient treatments and quality of life. One project in 2023, led by Bristol researchers, saw the **creation of wearable tech** that monitors stress hormones to give early warning and diagnostic information to help people with endocrine diseases. Wearable tech was also **trialled in a 2024 study** that aimed to improve treatments and support for people with Parkinson's Disease.

Bristol researchers have also been part of a **major international study** working towards the development of a cure for HIV. Published in March 2024, the team, led by a Bristol researcher and a colleague from Western University, Canada, identified a particle that is 100 times more effective than other candidate therapeutics. This discovery could help millions of people living with HIV.

Another study, shared in July 2024, saw Bristol researchers working with colleagues at Boston University, USA, to identify genetic markers in the body that can help identify patients who have had a stroke who are at greater risk of having a second stroke or other cardiovascular event. This will enable drug discovery and treatment to help improve patient outcomes.

Our students

Three **Bristol Medical School** students launched a startup company in April 2024 to help **address racial inequalities in cancer diagnosis**. Having learned about lower skin cancer survival rates and increased risk of misdiagnosis for people with black and brown skin, the students started a company to share diverse, more representative images of skin conditions, aiding students and clinicians in learning to recognise warning signs better and earlier and improve outcomes.

A student from our **School of Chemistry** raised more than £7,500 for charity by **running three marathons in three days**, despite never having run a marathon before. His incredible feat was intended to raise both awareness and funds for the men's mental health charity **Movember** and the **Matt Hampson Foundation**, an organisation that provides specialist rehabilitation for young people seriously injured through sport. The student was inspired to act after losing a friend, and after another friend suffered a spinal injury in a car accident.

Our communities

Bristol Dental School (BDS) has **social and civic impact** at its heart, delivering clinical training through the provision of primary care directly to the community. In 2023/24, more than 18,000 patients received free appointments, and **more than 400 children** got check-ups and treatment through

partnerships with local schools to reach excluded groups. In October and November 2023, BDS students and staff **attended community events** in St Paul's and Southmead to share oral health advice and free samples with local families, and more families visited the Dental School for a Halloween themed open day event.

The University partnered with local organisation **Wellspring Settlement**, a community group based in the Barton Hill area of the city, to hold a series of workshops to enable local people to share their experiences and thoughts on **reducing health inequalities**. Co-produced by community researchers and local residents, the project created art pieces and facilitated discussions about what people wanted and needed to live better, healthier lives, leading to a policy briefing in 2024 for those working in this area.

Ourselfs

Colleagues from across the University gathered in November 2023 for a workshop on young people and mental health. Over 70 staff registered for the event run by the **Elizabeth Blackwell Institute for Health Research**, which brought together our researchers with colleagues from a range of student support roles. Topics included University wellbeing services, student career anxiety and resilience, decolonisation and mental health, breaking down barriers, digital opportunities and challenges, legal frameworks around mental health, understanding autistic students, co-designing wellbeing programmes, and co-production of research on mental health.

June 2024 saw the launch of a scheme through the **Elizabeth Blackwell Institute** that offered **small pots of seed funding** to enable researchers to develop partnerships that will help tackle some of our greatest global health challenges.

Funds were provided for projects looking at antimicrobial resistance profiling with partners in South Africa, health guidelines for antimicrobial prescribing with partners in Kenya, virus modelling with partners in Cambodia, and climate impacts for water-related disease with partners in in South Africa and Ethiopia.



Goal 4: Quality education

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

Our research

A new study from University of Bristol researchers has helped increase understanding of play, imagination and pretence in very young children. Published in August 2024, **the research** shows that around half of children are able to pretend by the time they reach one year old. A complex, evolving process of learning and understanding, playing pretend is part of children's early learning skills, especially in areas related to creativity and social engagement. The work will help teachers and parents better support child development in early years environments.

More children than previously thought may have additional learning needs, researchers from the University's **School of Education** and Swansea University have found. Using data on children from Wales born in 2002/03, **the team found that nearly half** (48%) were identified as having additional learning needs at some point during their school education, which had a significant impact on their learning outcomes. The study suggests that greater support and better inclusivity of learning is needed.

Our students

The 2023/24 academic year saw the launch of the new **Bristol Skills Profile**, an initiative to help our students build, track and evidence

their skills through an interactive online platform. The Profile helps students identify their strengths and weaknesses, and record development across nine key areas, covering skills such as teamwork, problem solving and organisation.

Two Bristol students were among nominees at the **Student Social Mobility Awards** in 2023, with one winning his subject area category. A staff member was also nominated as a Champion of Social Mobility, while the University's **Bristol Mentors** programme was nominated as University Progression Initiative of the Year. The awards aim to recognise the achievements of UK undergraduate students from lower socio-economic backgrounds, and the staff and organisations that support them. They are run by charity **upReach**.

Our communities

The **School of Education** partnered with local education charity Trust in Learning in 2024 to **support teachers in undertaking research** in their classrooms to help improve education for students in Years 6 to 8. Participants were able to come together and share their work, with the projects undertaken looking at areas including developing mathematical reasoning skills, improving collaboration between staff, boosting confident and self-esteem, and interventions to develop writing skills.

Starting in 2023, the University's **School of Education** partnered with local community initiative **Power Education** to help empower and support young people from marginalised backgrounds to succeed in education. **The programme** offers tutoring in maths, science and English to 11 to 16 year olds from across the city, particularly those from the Somali community, at the University's **Barton Hill Micro-campus**, with support from the University's Widening Participation and Civic Engagement teams. It aims to help more young people from these underrepresented groups secure places at university and reach their potential.

Another **initiative to support young people** in the Barton Hill area into education celebrated its 10th birthday in 2023. National charity **IntoUniversity's Bristol East project**, run in collaboration with the University, was established in 2013. Over the last ten years, it has helped more than 6,400 children and young people to improve academically, gain skills, and develop insight to help them understand their options for the future.

Ourselves

The **Bristol Institute for Learning and Teaching (BILT)** provides **support and training** for those new to teaching, as well as ongoing professional development opportunities. In July 2024, BILT held its **annual conference**, with a focus on student agency, empowerment, and co-creation. Sessions offered staff, students and visitors the chance to share, learn and reflect on issues such as recognising student agency and choices in assessment and feedback, students as partners in learning, and taking inclusive, decolonialised approaches to teaching and curriculum design.

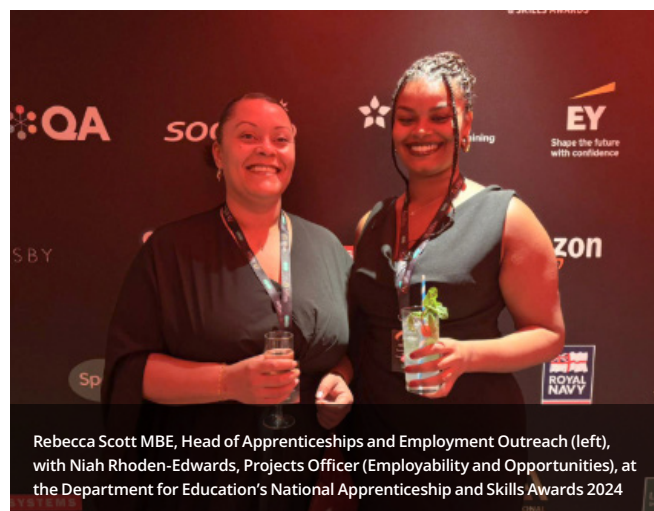
The University's apprenticeship scheme was **recognised at both regional and national level** in 2024. Having been awarded The Aptem Social Justice Employer of the Year Award at regional level, the Apprenticeships team earned a nomination for the Department

for Education's National Apprenticeship and Skills Awards. Our **eXcelBristol Apprentices** programme aims to attract talented people from diverse backgrounds to work at the University, providing entry level career opportunities and ongoing development.


2nd

**in the UK for our
Education teaching**

(The Times and Sunday Times
Good University Guide 2025 &
Complete University Guide 2025)



Goal 5: Gender equality

Achieve gender equality and empower all women and girls



Our research

Researchers from the University of Bristol shared new **research into the policing of violence against women and girls** in 2024, with findings showing that there is a lack of trust in the criminal justice system to deliver outcomes. The report found that these types of crimes are less likely to result in offenders being charged, and that in particular women and girls from minoritised backgrounds are less well served. Training, institutional culture and structures, and community engagement were all noted as areas needing improvement.

Two Bristol-led studies have uncovered the vulnerability of women who have experienced domestic or intimate partner violence or abuse (IPVA), one around **financial hardship** and the other focused on **social isolation**. Financial hardship can follow a separation or divorce, with IPVA victims less likely to have assets to divide, and more likely to have to deal with complex legal procedures. Loneliness was also found to be a risk factor for vulnerable young people who entered relationships that became abusive, or who remained with or returned to abusive partners.

Our students

Bristol Engineering Design students have **helped create a hand-spun washing machine** that will soon be changing the lives of 10,000 families in the developing world. Working with charity **The Washing Machine**

Project, groups of students have helped develop a machine that can ease the burden of hand-washing clothes, which predominantly falls on women and girls. It is estimated that the new machines, which will be mass produced by **The Whirlpool Foundation**, could help improve the lives of up to 150,000 people, easing poverty and opening up opportunities.

Bristol Students' Union **launched a special fund** in 2024 to help support students who are trans, non-binary, intersex or otherwise gender diverse. The fund is intended to help students obtain gender-affirming products such as clothing, and take gender-affirming action such as changing their name. The **Gender Expression Fund** has been made possible through funding from the University, and is part of efforts by the University and the Union to help alleviate the impact of the cost of living crisis on students.

Our communities

A new University project to help encourage **greater diversity in technology and engineering** has been founded by a group of researchers and students, working with partners from **Women in Robotics UK**. Titled **LaunchBox**, the project will train more than 30 engineers in diversity-focused outreach. It aims to reach more than 300 girls and non-binary students aged between 13 and 17, raising awareness of opportunities in the field of robotics through workshops, case studies, and role-modelling.

In March 2024, local people were invited to join a **special screening of Netflix documentary Game On**, exploring and celebrating the rise of women's sport. The free event also included a panel discussion featuring the film's director and leading women's sport activist Sue Anstiss, alongside leading experts in the field.

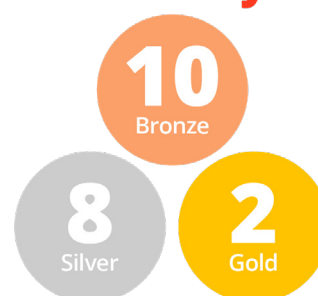
September 2023 saw a visit to campus from Hope, **a life-sized model suffragette** built from 32,327 LEGO bricks. Originally commissioned by the UK Parliament in 2018, Hope is now touring the UK as part of celebrations leading up to the 100th anniversary of the 1928 Representation of the People (Equal Franchise) Act. She was hosted in the University's Wills Memorial Building until October 2023 as part of the tour, accompanied by a public display on women's suffrage.

Ourselves

In February 2024, Bristol joined other universities in the region to make a **shared pledge** to collaborate on tackling sexual violence and harassment. Working in partnership with students' unions, the universities set out a joint commitment to a **10-point plan of actions** to foster safe campus environments and support students, including by providing education on consent, and providing clear channels to report unacceptable behaviour, including across institutional boundaries.

The University joined with other **GW4** universities and the **Higher Education Policy Institute (HEPI)** to **publish a joint report** on the gap in childcare support for postgraduate students, who are not eligible for either the Childcare Grants available to full-time undergraduate students or the in-work childcare benefits available to people in substantial employment. These hardships disproportionately affect women and people from lower income backgrounds. The GW4 partners have therefore called on the Government to extend the Childcare Grant to postgraduate students, to help improve diversity and ensure opportunity for all.

We currently hold



School-level Advance HE Athena Swan awards

The University achieved 'highly commended' Silver accreditation Athena Swan Charter

TARGET
50%
female professors
and eradicating the
gender pay gap by
2030



Goal 6: Clean water and sanitation

Ensure availability and sustainable management of water and sanitation for all

Our research

The University's interdisciplinary **Clean Water and Sanitation Services research group**, which includes academics and students, published a number of papers in 2023/24. Topics included the threat climate change poses to water security and water governance, with **papers looking at community-based solutions**, issues for **small-town water utilities**, and the effectiveness of **climate-resilient water safety plans**. Another **paper** examined the impact of non-sewered sanitation systems on greenhouse gas emissions.

A Bristol academic is leading efforts to tackle arsenic pollution in water supplies in the Global South, with a **new study** published in 2024. The researcher, inspired by his own experiences as a child in India, has helped uncover a way to make drinking water safer through oxidising the arsenic using local sources of iron. This opens the door to further work to decrease the harm caused by arsenic and to make drinking water safer in high-risk areas in southern and central Asia and South America.

Our students

A Bristol student was among attendees at the **University Scholars Leadership Symposium** in 2024. Organised by Humanitarian Affairs Asia, the event provided an opportunity for

young leaders in their fields to share and inspire on global challenges. The student, who is studying for an **MSc by research in Global Environmental Challenges** at the University's **Cabot Institute** and is looking at ways to tackle **water-borne leptospirosis** (or Weil's disease), was able to join sessions on water, sanitation and hygiene, and visited a refugee camp near the border with Myanmar to see first-hand the sanitation challenges faced by the people there.

October 2024 saw the second year of our Science Partnerships Office's **Aegis Professor Undergraduate Competition**, offering multidisciplinary teams of students a chance to share their innovative ideas and solutions to real-world challenges. 11 teams joined the final competition on Celebration Day, with four opting to look at the challenge theme of Clean Water for All. The overall winners, Team 9, developed an **innovative filtration system** to help reduce levels of arsenic in drinking water supplies in Bangladesh.

Our communities

A Bristol researcher was invited to **present her work to Parliament** in March 2024 as part of the **STEM for BRITAIN** initiative. Dr Sally Weston was one of 120 early career researchers presenting a poster at the event. She shared her work, which looks at water supply schedules and public health in Kenya, with other attending researchers, academics, and parliamentarians.

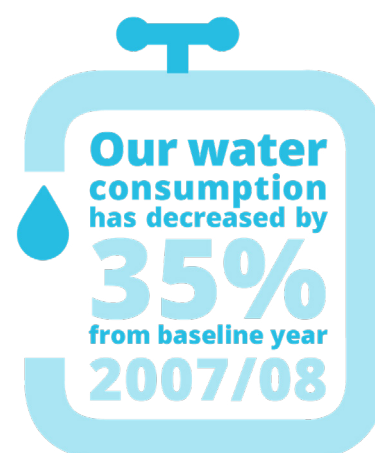
The event was hosted by the UK Parliament's **Parliamentary and Scientific Committee** as a way to bring the scientific community together with politicians and policymakers.

A **public seminar** on the topic of Governing Scarce Water Resources through Collaboration, held in the Wills Memorial Building in April 2024, saw the University joined by Dr Elizabeth Koebele of the University of Nevada in the US. Dr Koebele's work is focused on environmental policy, with a particular interest in water governance and management in the western United States. The lecture was hosted by the **Policy & Politics journal**, of which Dr Koebele is a co-editor and which is published by **Bristol University Press**.

Ourselfs

With the opening of the new, purpose-built **Bristol Dental School building** on Avon Street in late 2023 came new, state of the art dental training facilities. To help ensure the safety of staff, students, patients and visitors to the site, a water hygiene policy was developed and the university's first Water Safety Group was established. Meeting quarterly, the Group is tasked with ensuring proactive water safety management, in order to prevent any outbreaks of water-based pathogens such as Legionella, which can be a risk with water-based dental equipment.

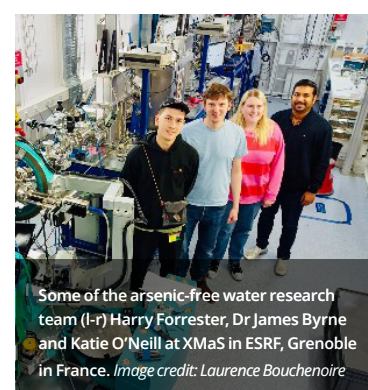
We are committed to reducing water consumption across the University and this is an essential part of our Sustainability Impact Assessments (SIAs). SIAs form part of business cases for any strategic projects or programmes, major capital projects, developing or revising faculties, divisional or university-wide policies, and prior to the procurement of significant supply or service contracts. They enable us to consider potential sustainability impacts at an early stage in the planning process. We have adapted the '**Learn-Act-Measure**' model, also used in Equality Impact Assessment, and the framework focuses on three environmental aspects of sustainability: climate, nature, and resource use.



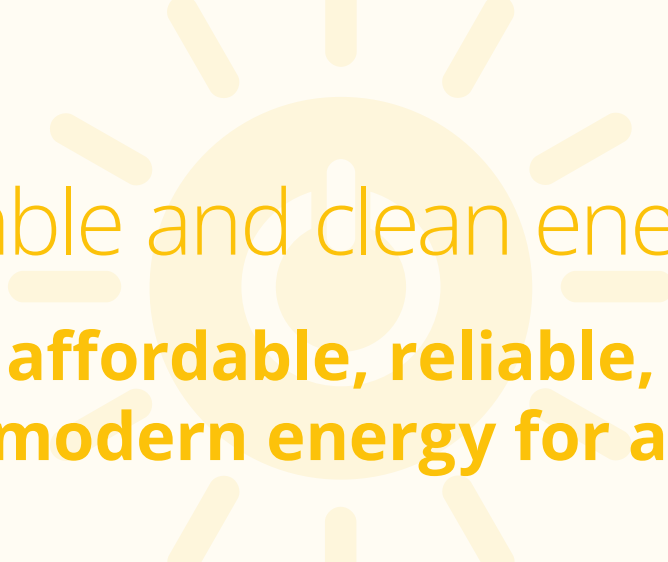
Dr Jagannath Biswakarma (centre) helping children understand the groundwater quality in his hometown Assam, India. Image credit: Farishta Yasmin



Ana Maria at the Conference of the International Leptospirosis Society



Some of the arsenic-free water research team (l-r) Harry Forrester, Dr James Byrne and Katie O'Neill at XMaS in ESRF, Grenoble in France. Image credit: Laurence Bouchenoire

A large, stylized sun graphic with a circular center and several rectangular rays extending outwards, positioned behind the main title.

Goal 7: Affordable and clean energy

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

Our research

Bristol researchers are **developing the next generation of wind power** – drones that can harvest wind energy at higher altitudes. This exciting new field of Airborne Wind Energy Systems could help reduce carbon emissions further, provide greater flexibility in renewable energy, and offer accessibility to more remote areas. An area with huge potential, researchers are working to understand the intricate requirements and complex systems required to make drone wind harvesting viable.

Bristol was confirmed as a **leader in the field of fusion technologies**, with three projects awarded funding by the **UK Atomic Energy Authority** in 2023. The projects all relate to ongoing work to develop lithium technologies that are critical to the success of fusion energy, which has the potential to be a safe, sustainable, low carbon alternative to existing energy sources. The three University projects are focused on enriching lithium isotopes, creating the necessary fuel for fusion to be self-sufficient, and unlocking plasma-based technologies.

In 2024, University researchers and colleagues at the **National Composites Centre** teamed up with local marine engineering start-up **WingTek** to take the next step in **developing new technology** that will reduce harmful emissions from maritime and marine vessels. A unique wind auxiliary propulsion system, Wingsail, can complement existing ship systems to reduce their reliance on fossil fuels, and can be easily adopted by existing fleets.

Our students

In 2024, the University launched its new **MSc Sustainable Engineering** programme, offering students the opportunity to develop their knowledge and gain skills that will help them tackle global sustainability challenges. One of the three pathways offered by the programme is focused on **Renewable Energy**, with specialist modules focused on renewable energy and wind energy systems.

The University's **Cabot Institute for the Environment** held a sustainability-themed careers event for students in October 2024. The Networking for Sustainability session included talks on topics including energy systems, offshore wind power, hydrogen energy, and low carbon buildings, as well as displays from a number of companies. The session was then followed by a **panel discussion** featuring five leading figures from the renewable energy and sustainability sectors, who talked to students and staff about the opportunities and challenges of the UK's transition to Net Zero.

Our communities

Researchers from Bristol shared a number of **policy recommendations** around the infrastructure needed to facilitate community-led energy initiatives in a policy briefing released in October 2023. Community energy organisations are a vital part of the UK's move towards decarbonisation and Net Zero.

Recommendations included better information sharing, improved local energy planning, strategic investment, and reform of the national energy grid.

The **Cabot Institute for the Environment** welcomed speakers from the UK Space Agency, the European Space Agency, and the Department for Energy Security and Net Zero **for a workshop** in May 2023 on space-based solar power. This potential source of clean, sustainable energy involves collecting solar energy in space using satellites. Following this event, in October 2023, the Metro Mayor for the West of England **visited the University** to meet with experts on this technology. The Mayoral Authority is funding work on Space West - the region's space cluster, which involves the University - and will double the 1,000 people working in the region's space industry over the next four years.

Ourselves

In October 2024, the University and the National Composites Centre signed a **strategic partnership** agreement with sustainable energy company Vestas. The partnership will see University researchers working with Vestas to develop innovation solutions to advance the wind energy sector, improve wind turbines, and help us meet Net Zero targets.

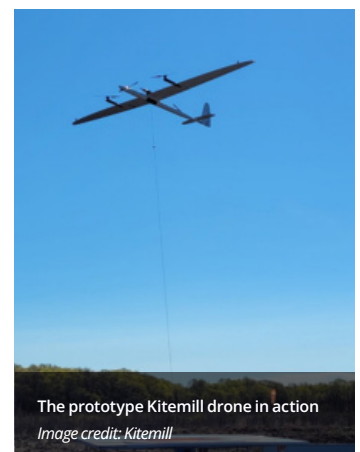
The 2023/24 academic year **saw the University** reach a decrease of almost 51% in scope 1 and 2 carbon emissions from buildings since our baseline 2005/06 year, which is a great accomplishment, but further work is needed to continue this progress. Our ambitions going forward include ensuring new building and refurbishment both meet the highest energy standards, and increasing our use of self-generated or local heat and electricity from zero or lower carbon sources.



500 kW
of solar power
available across
our estate



**Waste kitchen oil
is transformed into
biofuel to power our
delivery lorries,
saving 2 tonnes
of carbon for every
1,000 litres recycled**



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

The University of Bristol Business School **launched** its new **Resilient and Sustainable Supply Chains research theme** in October 2024, a way to bring together interdisciplinary expertise from across the university on shared global challenges. The group's focus is on collaborative research that develops practical solutions, with key areas identified as food security, manufacturing and critical imports, renewable energy, health security, and transport logistics.

Members of the Migration Mobilities Bristol research institution also published research in 2023/24. This diverse, interdisciplinary group of academics explore a wide range of issues relating to migration, for example a paper exploring the views of **workers in the "gig economy"** about labour rights and representation, and a book on the issues around **trade, labour relations**, and sustainable development.

Our students

Bristol graduates have again been recognised as among the **most sought-after in the**

country by leading employers. The Graduate Market in 2024 report, compiled by High Fliers, found Bristol was the fifth most targeted UK university for graduate employees in a survey of 100 top companies. 94% of Bristol graduates are in employment or further study 15 months after graduation, thanks to employability support from the University's Careers Service including careers fairs, help with jobs and internships, and most recently the launch of the **Bristol Skills Profile** to help students record and evidence their skills to employers.

Careers support is available to all Bristol students and graduates, but it is recognised that students from lower socio-economic backgrounds can sometimes face additional challenges in finding and accessing career opportunities. To help all students reach their full potential, Bristol's Careers Service offers **dedicated support** including **Bristol Mentors**, a scheme to match students with a suitable alumni mentor who can help them with ideas, advice and getting a foot in the door.

Students can also sit down for a one-to-one chat with one of our **Recruiters in Residence**, meeting employers face to face for anything from an initial enquiry to advice on applications.

Our communities

Dismantling the idea of work as a route out of poverty was the theme of a **public lecture** hosted by the Bristol Poverty Institute in May 2024. Speakers from the University's Business School shared findings from two research projects, one looking at underemployment, and one focused on the active labour market policies related to Universal Credit. Centred on the lived experiences of workers, the talk provided an opportunity for learning and reflection around employment, good work, and poverty.

Local people were invited to **Work In Progress**, an art exhibition that explored the industrial history of the area around the University's new Temple Quarter Enterprise Campus. The exhibition, which forms part of the Charting Change campus development public art programme, included interactive sculptures, photography, and free workshops, all focused on the social and industrial history of the new campus' location. The exhibition was developed by programme artist Ellie Shipman, in collaboration with local residents from the Barton Hill community.

for agreement at the national level, this close, direct relationship at the local level will help ensure share priorities of addressing the cost of living crisis and supporting staff in challenging times.



**City of Bristol College
Apprenticeship Awards 2024**

Ourselfs

In February 2024, the University **signed a new academic partnership** agreement with the Institute of Civil Engineers (ICE). The agreement will support the progressional development of staff and students in civil engineering, and strengthens links between the University and industry. Through ICE's academic partnerships scheme, students will be able to access tailored development opportunities, enhancing their employability and preparing them for their future careers, while staff will gain access to CPD resources, research funds, teaching materials, and additional industry expertise.

The University **strengthened its relationship** with the Trade Unions in 2024, committing to regular, ongoing meetings to discuss areas of mutual importance including pay, rewards and benefits. While some areas are reserved



**NEW APPRENTICES
RECRUITED ACROSS
PROFESSIONAL SERVICES**

**We are on track to achieve our
target of 1% of our workforce
to be apprentices by 2025**



**of our 2022/23 graduates
were in employment, further
study, or both in 2024**

Goal 9: Industry, innovation and infrastructure

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

Our research

Two University medical spinout companies were celebrating in 2024 after their potential to improve health and quality of life for patients was recognised. In January, **CellVoyant**, an AI-first biotechnology company that focuses on accelerating the development of new stem cell therapies, secured £7.6m of seed funding to support their work, which may have applications for areas such as cancer, diabetes, and spinal injuries. In April, hormone monitoring tech company **Dynamic Therapeutics** was awarded the prestigious Blavatnik Prize in recognition of their work on metabolic diagnosis and therapies.

Another spin-out company, **Albotherm Ltd**, secured £1.6m in investment for their work using advanced polymer chemistry to create heat-sensitive material, based on the research of a former Bristol PhD student. In November 2024, Albotherm also received a £500,000 grant from Innovate UK to further develop its technology. This has the potential to make commercial greenhouses more efficient by up to 34%, keeping growing conditions optimal and reducing reliance on active cooling systems.

Our students

In 2023, the University launched the **Bristol Entrepreneurs' Pledge**, a scheme where business founders who receive funding from the University pledge to donate some of their future earnings to help fund the next generation of young entrepreneurs. Following a US model, the pledge is an aspirational aim for startup founders to give back once they themselves have succeeded. The **first donation through the new scheme** came from a former student who received £20,000 in 2010 to help launch his business, which was recently sold to an American software company.

The University's annual **Innovation Showcase** for 2024 saw £100,000 in funding available for start-up businesses, with the Runway pitching competition for £75,000 from the University's student incubator Runway joined by a dedicated £25,000 fund for quantum-related University start-ups. The event also hosted a showcase of work from students in areas including AI, music production, and immersive learning. **Winners included** companies focused on using data to improve seaweed farming, improving data skills, chemical use in composites, and using light in sewage treatments.

Our communities

The University's tech incubator, SETsquared, has gone from strength to strength in 2023/24. SETsquared supports the growth of over 100 technology start-ups, with SETsquared companies **creating 300 new jobs in 2023** and generating over £45million in revenues, £50million in funding, and achieving record numbers for leadership diversity. In October 2024, Bristol SETsquared **partnered with leading regional investment firm** QantX to launch a new £300million spin-out-focused investment vehicle that aims to boost the creation and growth of science and technology companies in the region.

In July 2024, the University joined with local partners in health and care, science, and regional government to **launch a new initiative** to boost the region's life sciences sector. **South West Life Sciences** will bring together partners' expertise across discovery, development, investment and innovation in life sciences. Set up and led by the University's **Translational Research Hub**, the aim is to foster joined-up local innovation, catalysing growth by creating connections and networks, and advocating for the region's life sciences ecosystem.

Ourselves

Bristol has been **chosen as the host university** for a new £11m Innovation and Knowledge Centre which is set to develop pioneering technology at the forefront of the UK's Net Zero transition. The REWIRE Centre will focus on research into semiconductors, microchips that are a key part of nearly every electrical device. The new Centre is being delivered in collaboration with the Universities of Cambridge and Warwick, and with partners in industry.

The University signed an agreement in December 2023 with deep tech organisation Science Creates to establish an **£8.5m incubator** on our new Temple Quarter Enterprise Campus. The incubator will be called

OMX, and will focus on supporting spin-out companies with a regional economic focus. This will be the third deep tech incubator the University has developed with Science Creates, the first having opened in 2017, and will offer state-of-the-art facilities including wet-labs, high security, and ultrafast computer networking for around 275 new companies.



**in the UK for number
of spinouts since 2011**

(Royal Academy of Engineering and
Beauhurst "Spotlight on Spinouts 2024")



Architect's render of the new OMX incubator, which will be based on the new Temple Quarter Enterprise Campus



The Showcase at the annual Innovation Week 2024

Goal 10: Reduced inequalities

Reduce inequality within and among countries

Our research

A study led by Bristol researchers has **uncovered higher rates of preterm birth** for Black and Asian parents than for White parents, and for parents living in more deprived areas. The research, which analysed data from 2015 to 2017 on 1.3 million births across 130 NHS Trusts in England, is the first to report on ethnic and socioeconomic disparities in preterm birth rates. Premature birth can have life-changing consequences for babies and their families. Further research is needed to better understand the reasons for the disparities, and to find ways to break these cycles of inequality.

In October 2024, the University **received £11million in funding** for its new **VIVO Hub for Enhanced Independent Living**, a collaborative partnership with the Universities of the West of England and Strathclyde, UCL, and Imperial College London. The Hub is developing VIVO smart or robotic devices that combined AI, digital monitoring technology, and design to support people with age or disability-related mobility challenges. Devices include clothing that can “put itself on”, garments that can help prevent falls, and soft exosuits to help people sit, stand and walk.

Our students

Many of our students overcome challenges to achieve their dreams. **Chloe Fussell** is one, having helped her disabled siblings

and terminally ill mother as a young carer. Chloe’s early education was turbulent and she thought university was not an option, but she successfully graduated in Criminology in 2023, and is now training as a teacher at the University. **Dr Becs Bradford** is another. Having been brought up in care after her father was seriously injured in an accident, she left school at 15 with no qualifications and was told she would “amount to nothing”. But Dr Becs proved her detractors wrong, taking her first GCSEs at age 35 and graduating in Medicine at 41.

Three Bristol students were among **competitors at the 2024 Paralympic Games**. Sally Kidson joined the University in September 2024 to study music, and competed in the individual and pairs Boccia in Paris having made her international debut just two years ago in 2022. Michael Taylor, a current student at Bristol Medical School, competed in the Triathlon for a second time, having done so before at Tokyo 2020, and came 6th in the Men’s PTS4 category. Bristol Law graduate **Dan Bethell** also competed in both Paris and Tokyo in Badminton, securing Silver medals at both in the Men’s Singles SL3 class.

Our communities

Artist and performer Tom Marshman performed **a new show** in 2024, commissioned and developed in partnership with the University, to explore the impact of Section 28 of the Local Government Act 1988, which

banned local authorities, particularly schools, from “promoting” homosexuality. The **project’s development** was supported by University academics and research assistants, and involved interviews and workshops with LGBTQ+ people. The show offers attendees a chance to hear people’s stories and learn about the legacy of Section 28.

A group of local **primary school children** visited the University in July 2023 as part of a new outreach initiative for pupils from less affluent areas of the city. Run by local education organisation CARGO, the day was focused around the work of African-American scientist and inventor Lonnie Johnson, who worked for NASA. The **CARGO Classroom scheme** was set up to teach local young people about important and often overlooked figures in black history, especially in areas of literature, maths, science and technology, and to help them get more comfortable with the idea of university and to see it as a viable option.

Adult learners can also hear about underrepresented and overlooked Black figures in history through a University evening course. **Black History Revisited** offers participants the chance to look at Black British lives and experiences, from the transatlantic trade in enslaved African people to the Windrush Generation and more. The 10-week course is led by expert Dr Edson Burton, historian, writer, performer, and University lecturer. As well as offering a fascinating learning experience, this **short course** can be a stepping stone on to further education, such as our **MA in Black Humanities**.

Ourselves

In late 2023, Bristol researchers **launched a survey** into Black academics’ experiences in education as part of the Breaking Barriers to Black Academia project. Co-funded by the EPSRC, the survey aims to identify areas of racial injustice in national research funding practices after a recent UKRI review found that Black academics are severely underrepresented among funding awardees.

It is hoped that the survey will draw on the lived experience of Black academics in order to help tackle racial inequalities and improve academic equity and fairer funding opportunities.

The University hosted two conferences in 2024 focused on equality, diversity, and recognising excellence. **The first, in June**, was also linked to the Breaking Barriers to Black Academia project, and saw academics from across the UK coming together to explore ways to enable high quality research by supporting minoritised academic colleagues and researchers. **The second, in September**, was the annual meeting of the Society of Black Academics (SBA), and was attended by more than 70 Black academics from the UK and USA for talks and discussions on the challenges and opportunities for Black scholars.

Over 200
students who participated
on an intensive widening
participation programme,
such as Access to Bristol,
enrolled with us in
September 2024



Pupils and staff from May Park Primary School visiting the University of Bristol

Goal 11: Sustainable cities and communities

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

Our research

Cities are growing at an unprecedented rate, putting overwhelming pressures on exploited land, scarce resources, and fragile ecosystems. Researchers from the universities of Bristol, Oxford and Yale have **proposed a new global Urban Science advisory system** to address the alarming impacts of urban expansion. This system would fulfil a similar function as the Intergovernmental Panel on Climate Change (IPCC) does for climate change and would work in tandem with the UN General Assembly to highlight relevant issues and put the latest information on the transformative impact of urban growth on policy makers' radars.

Researchers from the Bristol Poverty Institute and the Cabot Institute City Futures theme held an **interactive workshop** on the topic of socially just future cities, in order to provide space for new research connections. The event explored topics around a just transition and leaving no one behind, and how this intersects with issues including health, city planning, and the importance of systems thinking when addressing issues of sustainability to avoid unintended consequences for those experiencing or at risk of poverty. It touched on many aspects of everyday life including energy and transport poverty, access to white goods, and food options. It was followed by breakout discussions to explore questions such as "what would a socially just transition in Bristol look like?".

Our students

Students are a vital part of the local community and we take pride in the value that our students bring to Bristol, whether it is through voluntary activity, collaborative initiatives or enrichment of the diversity and culture of the city. However, we also recognise that there can be challenges around integrating students with the wider population and our **Bristol Student Community Partnership** was established to promote student and community relations and cohesion. In 2024, discussions in this Group included the Students on the Move campaign to reduce waste as students move out, and Bristol City Council's new tenant information pack which has relevant information for students renting privately.

Second year undergraduate students in the Department of Theatre taking the Applied Theatre unit undertake **community engaged learning projects** which bring them together with external partners. The students worked with Travelling Light Theatre Company to design, publicise and deliver a Free Family Theatre Day for local families. With further support and input from Bristol Refugee Rights, and the University's Barton Hill Micro-Campus Little Library, they designed and delivered a series of creative workshops and performances for children and their families living in the Lawrence Hill neighbourhood.

Our communities

Expert voices from planning, health, government and consultants shared their insights of using Health Impact Assessments as a force for good to create healthier new communities in a **series of eight films**. As part of the TRUUD (Tackling the Root causes Upstream of Unhealthy Urban Development) research programme, participants looked at their own experiences of embedding requirements for Health Impact Assessments in their local plans and shared positive impacts and what could be improved. **The films** included contributions from officers at five councils, planning consultants, the Office for Health Improvement and Disparities and the Local Government Association.

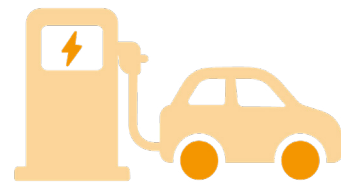
In developing and delivering environmental policy, local authorities need to act within national legislation while also supporting the needs of the communities they serve. This two-way tension is evident in the words used in formal communications and policy documents, which are frequently loaded with technical meaning or have specific definitions that may not be known to most. University of Bristol researchers and PolicyBristol developed a **policy research briefing** on ways to include community groups and businesses on climate policy development, in particular on how to value lived experience and be guided by local practitioner knowledge. These briefings aim to make research more accessible to users beyond academic so that it can shape and inform policy.

Ourselfs

As part of our **Cleaner Fleet Programme**, we have committed to reduce emissions and the environmental impact of our vehicles. Following an investment of over £1.5 million, as of 2024 we have 44 all-electric vans and eight hybrid election vehicles out of a total of around 90 road vehicles. Installing the necessary charging infrastructure is also a critical and complex step. This requires collaboration across multiple teams to ensure that each

charging point aligns with operations needs and can connect with our digital systems to provide real-time energy monitoring. Twenty-nine charge points have been installed across the estate, providing 57 connectors - sufficient capacity for our current fleet, with room for future growth.

Opening in 2026, our **Temple Quarter Enterprise Campus (TQEC)** will enhance connections with industry and civic organisations to co-create solutions to the most pressing challenges facing our society. A group of Bristol-based artists were selected to lead **Charting Change** – a two-year, participatory public art commission. Led by artist Ellie Shipman in collaboration with the Dhaqan Collective – a Somali feminist art collective – and artist Jack Stiling, the project explores the industrial histories of the site alongside its technological futures and will culminate in a permanent artwork inside the main TQEC building.



**Over 29,500 kWh
of charge recorded in
our EV charging points**

between January and October 2024



**carried on our U1 & U2
Unibus services in 2023/24**

Goal 12: Responsible consumption and production

Ensure sustainable consumption and production patterns

Our research

A **pioneering study** by Bristol academics, **published in Nature** in 2024, has shown that effective regulation and monitoring is vital to successfully tackling emissions of super-greenhouse gas trifluoromethane, as known as HFC-23. The gas is mainly produced as a byproduct in industrial production of refrigerants and Teflon, but the study revealed that factories are not properly destroying the gas so greater quantities are being produced than was reported, highlighting a need for greater regulation and independent auditing of such factories.

Sustainable timber use needs to move **beyond local sourcing** towards a more comprehensive, regenerative approach, according to research by Bristol researchers. The project in 2024 looked at increasing demand for timber and the position of domestic timber sources in the UK, seeking to understand how timber use fits into the wider economy and making recommendations for closer working between forestry and design elements to ensure timber consumption can transcend the circular economy of reuse and recycling to embrace regenerative design.

Our students

The University launched a **new Centre in Doctoral Training** (CDT) in late 2024 focused

on sustainable composites engineering. This was a follow on from **a previous CDT** which centred around composites science, engineering and manufacturing and provided training and development for PhD students such as **Stefania Akromah**, whose work on mushroom-derived composites offers potential for sustainable building materials for developing nations in Africa. The new CDT will offer **opportunities for students** in areas including composite structures, photonics, composite aero-structures, and using AI for composite lifecycle assessment.

Bristol Big Give is our annual campaign to support students to donate reusable goods to the British Heart Foundation (BHF) at the end of the summer term. Organised by Bristol Student Community Partnership, students can leave **clothes, books, and household and electrical goods** at donation points on campus, in Halls, and across the city. In 2024, 2,784 bags were donated, equating to £42k for the BHF.

Our communities

The University was pleased to welcome Tim Young, Head of Sustainability at the UK **National Composites Centre** and Visiting Professor at the Bristol Composites Institute, who joined us in May 2024 for a **public lecture** on composite recycling. Professor Young was

joined by Nancy Sottos of the Department of Material Science and Engineering at the University of Illinois Urbana-Champaign, who spoke about thermoset polymer and composite manufacturing. The session offered attendees an opportunity to hear cutting-edge thinking on sustainable materials and new technologies and approaches that can help make manufacturing more energy efficient and sustainable.

A **new initiative** to help farmers sell surplus produce directly to community organisations such as food banks, small producers and social supermarkets was launched by a Bristol academic in 2024. The **Circular Agriculture Hub**, co-designed with partners at the University of Nottingham, **aims to help** reduce food waste, increase access to fresh local produce, and create new networks and partnerships for farmers and community groups.

Ourselfes

With more than 990 labs, making up 6% of our estate but responsible for 40% of our energy consumption, the University has been working to reduce their environmental impact, including by using the specialist **Laboratory Efficiency Assessment Framework** (LEAF) Programme. We were the **first University** to achieve 100% Green Lab Certification in 2021, and in 2024 Bristol Medical School became the second School in the University to achieve Gold certification in 100% of their labs, with a goal to reach 100% Silver certification or above for all University labs **by the end of 2024**.

In late 2024, Bristol Dental School began **hosting a Terracycle box** for dental care items. Staff, students and the public will now be able to drop off items including all brands of manual toothbrushes, electric toothbrush head and covers, dental floss containers, flossing sticks and interdental bushes, and electric flosser nozzles. The items will then be sent off for specialist recycling.





Goal 13: Climate action

Take urgent action to combat climate change and its impacts

Our research

The wide-ranging and increasing **health dangers of extreme weather** for people in the UK were revealed for the first time in September 2024 by Bristol researchers. The team of climate scientists, meteorologists, doctors and epidemiologists found that prolonged exposure to extreme hot and cold temperatures are linked to health factors such as reduced levels of physical activity, disrupted sleep, and increased transmission of infectious diseases, as well as illnesses such as kidney disease and skin cancer.

The University's Cabot Institute for the Environment conduct a wide range of research into climate change. A **study published in November 2024** demonstrated the disproportionate impact of flooding on small island developing states that contribute the least to global climate change, while **research shared in August 2024** showed how failing to meet pledges on cutting carbon emissions could lead to flooding increasing by around half by the end of the century.

Research shared in 2023 showed evidence of a **"climate hazard flip"**, with areas once prone to droughts now facing frequent flooding and vice versa as a result of climate change. The joint study was undertaken by researchers from Bristol and Cardiff University, with partners from WaterAid, and used satellite images and climate data to explore the impact of the climate emergency in a range of geographic locations.

Our students

A Bristol PhD student **travelled to the Antarctic** to study rare organisms that could help shed light on climate change in early 2024. Emily Broadwell made the two-week journey out to the remote Signy Island to stay with five other researchers at a British Antarctic Survey site. Her research, looking at snow and glacier algae, will help increase understanding of the impact of climate change on these vulnerable regions.

A **Climate Fresk workshop** session hosted by the School of Education **in September 2024** saw 14 PGCE students receive training in providing climate change education. The students, who are **Green Apple** representatives for the different subject areas of the PGCE courses, were first taken through climate change education themselves, and then taught how to reflect on and share their learnings as facilitators themselves, passing their knowledge on to classrooms of the future. This followed a previous Climate Fresk session **for Business School students** in October 2023.

Our communities

A team of Bristol researchers **joined international experts** at the United Nations Climate Change Conference (COP28) in the UAE in November 2023 to share their insights on measuring and progressing global efforts to tackle carbon emissions and climate change. Bristol attendees included Dr Matt

Palmer, Associate Professor of Climate Science at the University's Cabot Institute for the Environment, who has been lead author on the UN's Intergovernmental Panel on Climate Change (IPCC) report, and who presented a session at the conference on latest observations on climate change.

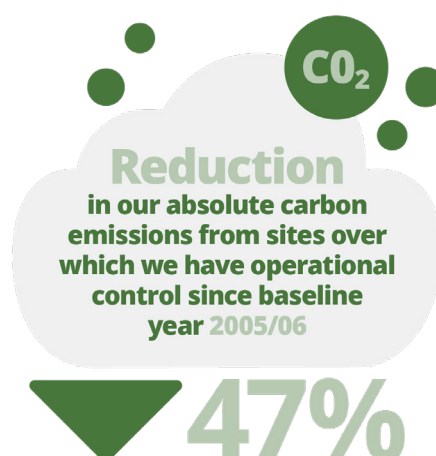
Ten talented environmentalists have been appointed as new **Personal to the Planetary (P2P) Community Fellows** by The Brigstow Institute and Cabot Institute for the Environment. The Fellows are drawn from researchers, community groups, the voluntary sector, individuals and artists from a variety of professions and disciplines. Over a period of ten months the Fellows will work as a cohort with community groups and other stakeholders on a deep and sustained engagement around the climate emergency. They will look at how the scale of the planetary crisis can disempower people from feeling they can act and how people usually absent from climate debates can be brought to the fore.

Ourselfs

Bristol Medical School **become the UK's first to achieve** Carbon Literature Educator (CLE) accreditation for its commitment to tackling climate change in October 2024. The Bronze accreditation was awarded by the UN-recognised Carbon Literacy Project, in recognition of the School's work embedding climate education and action into its work. The School had **already achieved Gold LEAF accreditation** for all its labs, and is now aiming to achieve Silver CLE accreditation by expanding its climate education programme to more staff and students.

Our **annual review of local Climate Action Plans** (CAPs) showed that, as of May 2024, 35 of our 42 Schools and Divisions were actively working on plans, amounting to 1,270 carbon-saving activities in the pipeline, in progress, or completed. The plans have been designed by members of each School and Division to meet local needs and priorities around reducing carbon emissions and improving sustainability

on campus. Local teams are supported by our central Sustainability Team, who monitor and advise their work, providing an online climate action planning tool that sets out actions under key themes of buildings, circular economy, transport, and advocacy. New themes were recently added around teaching and learning, and research, to allow for an expanded approach into new areas of action.



Goal 14: Life below water

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

Our research

Climate change is having a significant impact on **freshwater fish populations**, according to Bristol researchers. In a paper published in December 2024, a team from the School of Biological Sciences showed that freshwater fish that live nearer to the earth's poles are outperforming their counterparts that live near the equator as the equatorial regions become too warm and polar regions heat up. Understanding these changing patterns of fish population distribution will help contribute to conservation efforts and improve sustainable marine management.

Two projects to help improve UK flood resilience will be drawing on expertise from the University of Bristol in 2024. The first is being co-led by University researchers, and is focused on **improving flood adaptation measures** through better computer modelling, cutting the time and cost of projecting flooding for the rest of the century. The second is a national **Floods & Drought Research Infrastructure project**, led by NERC and the UK Centre for Ecology & Hydrology, and supported by experts from the University of Bristol and other partners. This project is looking at ways to stem the impact of extreme weather on communities and infrastructure.

Our students

In May 2024, the University hosted the annual **British Hydrological Society's Peter Wolf Symposium** for 2024. The **two-day conference** provided an opportunity for PhD students and early career researchers to present their work to academic colleagues and industry experts. The theme for the event was digital futures for observational and predictive hydrology, with speakers and presenters addressing topics across hydrology, hydrogeology, and water resource management.

A study by a Bristol PhD student into **the impact of climate change** on marine plankton was published in the prestigious journal *Nature* in November 2024. The paper, co-authored with partners from Liverpool, Germany and Sweden, showed that plankton are at high risk from ocean temperature rises, which imperils a wide range of other marine life for which plankton is a major food source.

Our communities

Funded by the University's Brigstow Institute, the **Water Futures project** is an exploration of the sociodigital spaces of rivers and their communities. Running in 2023/24, the project sought to use art, performance, conversation and other co-designed, qualitative methods to explore the interaction of rivers and

the communities that coexist with them. In **February 2024**, a group of researchers, partners and community members gathered for a **workshop** which took place on the riverbank, using creative practice such as audio recording and music to explore and discuss the river in new ways.

A unique collaboration between a Bristol researcher and a musician has produced **an unusual research output** in the form of an album of recordings from underwater. Released in October 2023, the collaboration is based on research by Bristol academic Dr Jack Greenhalgh, an acoustic ecologist, and shares the rhythms and soundscapes of pond life alongside detailed descriptions, scientific illustrations, and high-resolution microscope images.

Four Bristol researchers were among presenters at the **annual symposium** of the International Society for Fish Biology in Bilbao in July 2024. They led a session for academics, practitioners, and industry leaders sharing their findings on fish population distribution in special areas of conservation in Cardigan Bay, off the Welsh coast, and how their methods might aid conservation and marine management efforts.

Ourselves

The University and partners from the GW4 region received a combined £36m funding in late 2024 to **renew two doctoral training partnerships** on biology and environmental change. The South West Biosciences Doctoral Landscape Partnership, funded by the BBSRC, is delivered with partners including the Marine Biological Association, and aims to inspire and train future leaders in biosciences. The GW4+ Doctoral Landscape Training Partnership, funded by NERC, links regional universities with partners including the British Antarctic Survey, the UK Centre for Ecology and Hydrology, and Plymouth Marine Laboratory, and trains students in the interdisciplinary field of environmental science. We are also part of a consortium, led by the University of Southampton, in a new **Centre for Doctoral**

Training for flood research, aimed at protecting against rising river, rainfall and sea levels.

The University's **Days to Make a Difference initiative** offers all staff a paid day's leave to volunteer for a charity, organisation or other good cause. October 2023 saw the University's Research and Enterprise Partnerships Team volunteering down at a farm in Winford, where they planted trees to help reduce the risk of flooding. The day was **organised** with our friends at the **Bristol Avon Rivers Trust** (BART), who work on improving land management, restoring rivers, and reducing water pollution in the Bristol Avon region. As well as a great opportunity for team building, the day gave staff a valuable insight into river ecosystems, and a chance to make a real difference to local waterways.



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 **new discovery about wheat genetics** could help provide sustainable food supplies, thanks to a collaboration between researchers from Bristol and partners around the world. The study, which looked at historic wheat variants and identified diversity that could enhance and increase modern wheat types, included tracking technology developed by Bristol researchers that enabled enhanced wheat breeding and testing processes. The decades-long project aims to develop wheat that is more resilient to disease and the effects of climate change.

Around 45% of global land surface comprises deserts, shrublands, grasslands, and savanna woodlands. A chief characteristic of these regions is water scarcity, which significantly affects natural ecosystems and human-managed landscapes, including agriculture, forestry and livestock productions. A **new study**, led by Ghent University in collaboration with the University of Bristol, Cardiff University and ETH Zurich, has revealed that drylands themselves are accelerating their own proliferation. The research found that drying soils in existing drylands release less moisture and more heat into the atmosphere, leading to reduced rainfall and increased atmospheric water demand in downwind humid regions.

Over time, this process can cause these humid areas to gradually become drylands themselves.

Our students

Inspired by the Climate Fresk, **the Biodiversity Collage** is a playful and cooperative workshop that teaches participants to understand the challenges and pressures around biodiversity. Through a **workshop** which took place in July 2024, students and staff explored the functioning of ecosystems, the role that biodiversity plays for wellbeing, how it interacts with human activities and the threats that biodiversity faces – all based on the IPBES scientific reports.

The **Professional Liaison Network** have developed a series of research activities for students, in collaboration with **Natural England** and **Hillfields Community Garden**, that aimed to understand how nature recovery could impact the Hillfields community, how the community perceives nature recovery, and ways in which they could participate in nature recovery action that supports the local Climate Action Plan. In addition, they explored the potential role of social green prescribing in Hillfields and the barriers that prevent the community accessing green

spaces and supporting nature recovery.

Our communities

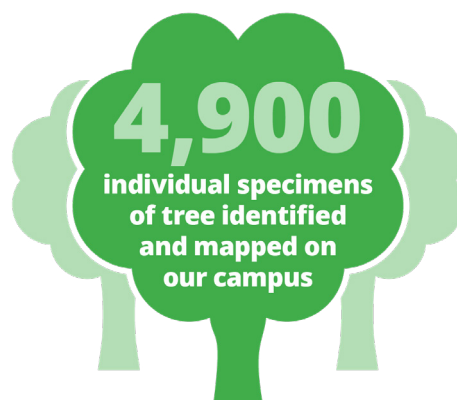
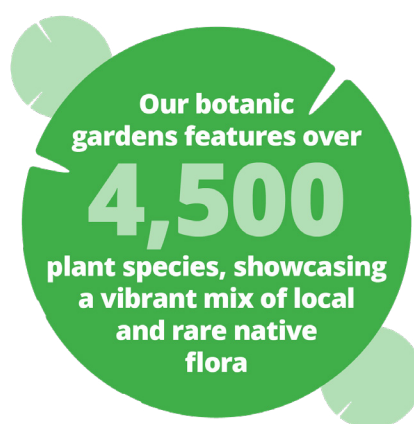
Bristol school pupils, working as **citizen scientists in collaboration with researchers**, studied the species of bacteria found in soils at two local schools, the Avon riverbank, a square in the centre of the city, a University farm and a local deer park. They found that human impacted soils tend to harbour different microbial communities to those areas less affected by human activities and that the make-up of the soil and environmental factors also played a key role. The project shared its work at festivals at community events across the city, and conversations about the role of terminology used in soil research led to the development of a new approach to guide research which does not treat nature as a resource to be exploited.

Two researchers from the Cabot Institute for the Environment **joined COP 16** – the Conference of the Parties to the Convention on Biological Diversity – as observers in October 2024. Bringing together scientists, Indigenous communities, business representatives and environment ministers from nearly 200 countries, the summit aimed to drive forward a call to action, urging nations to move away from extractive and unsustainable practices affecting biodiversity. As well as observing the negotiations, the researchers hosted one of more than 1,000 public events associated with the summit.

Ourselfs

Our gardens and green spaces are a key part of the University's estate and are a space for relaxation, volunteering and research. The care and maintenance of these spaces has a positive impact for our local wildlife and nature biodiversity, with many **opportunities for staff and students to get involved in nature conservation activities**. Events at our Botanic Garden include the **annual Bee and Pollination Festival** which in 2024 enabled visitors to find out about the vital role pollinators play in our lives and our gardens.

The latest addition to our Botanic Garden, **the Guangzhou Garden**, opened in May 2024. This exciting new garden first appeared at the Royal Horticultural Society Chelsea Flower Show in 2021. Its theme of sustainable landscape cities shows the environmental planning work and management of natural resources in a 'mega city' of Guangzhou. It won a gold medal and the coveted Best in Show Award, and afterwards was donated by the Guangzhou Forestry and Parks Municipality to the citizens of Bristol – its sister city. The Guangzhou Garden has been reimagined, rebuilt and replanted at the Botanic Garden as a valuable addition to the University and the city of Bristol.



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

A **report**, led by an academic in the School for Policy Studies, has uncovered the many risks of participating in climate and environmental protests across the world. It is the first report to examine global statistics on this form of protest and has identified alarming trends. It reveals that more than 2,000 climate and environmental protesters have been killed over the past 12 years and that a raft of new anti-protest legislation has been enacted, with more countries criminalising and repressing this activity in a bid to keep it in check. The report calls for governments, police forces and the legal system to help protect people's right to peaceful assembly and freedom of expression.

Trust remains a key issue in the policing of violence against women and girls (VAWG) in Black and minoritised communities, and this type of crime is much less likely to result in offenders being charged compared to other offences. A **report outlining these issues**, led by the University of Bristol, is based on feedback from police officers, filmed operational responses to VAWG call-outs, and incident case files. It was published as

the United Nations (UN) Women 16 days of activism against gender-based violence campaign drew to a close in December 2024. The findings follow two recent major policing reports which highlighted institutional racism and systematic failures in safeguarding women and girls from violence.

Our students

Colleagues across the universities of Bristol, Bath, Cardiff and Exeter teamed up in 2024 to form the **Climate Justice Education Research Network (CJERN)**. The activities of the network involved bringing together a core group of researchers from across the four universities, known as GW4, to explore **potential collaborations in the field of climate justice education**. Environmental education research is often framed as a purely scientific issue, which does not consider the unequal societal impacts of the climate and ecological emergencies. The project aims to develop new justice-focused educational responses through a series of workshops and activities.

Students and staff from the School of Sociology, Politics and International Studies have spent two years working with Bristol City Council on a **vital community development project**. The University evaluated the Community Resilience Fund, a £4 million capital grant to refurbish community buildings and other assets in the city's most in-need areas. It was designed to support community and voluntary organisations to recover from the pandemic, increase their sustainability and continue the important work they do in the long-term. The fund used a deliberative democratic approach to allocate the funding, bringing together councillors and residents to decide which proposals would receive support.

Our communities

Reparative Futures is a £10 million programme which aims, through a series of targeted initiatives, to redress some of the systemic injustices arising from the transatlantic trafficking of enslaved African people. The University acknowledges its historical ties with individuals linked to that activity and the significant work required to address this legacy. In May 2024, we appointed 24 community **Accountability Partners**, to provide a link between the University and the wider community of African descent, and hold the University to account for its ambition to create transformational change through reparatory justice work.

A professor in the Law School's has been **appointed to a World Health Organization (WHO) technical advisory group** on embedding ethics in health and climate change policy. The WHO is committed to working with Member States, UN and other international agencies and the wider global health and research community to deliver a range of supporting tools and materials to help navigate ethical issues across the health and climate change fields and embed them effectively in relevant policies. Professor John Coggon is one of thirteen members of the new advisory group who will serve to represent the broad range of disciplines relevant to ethics and climate change and health.

Ourselves

In September 2023, the **Centre for Environmental Law and Sustainability (CELS)** was launched. Based in the Law School, CELS is a centre of excellence for critical scholarship, teaching and public engagement with environmental law and sustainability research, addressing issues across domestic, EU and international jurisdictions. It aims to facilitate collaborations with academics and non-academic partners. Research activity includes fields of new technologies, conservation law, renewable energy, corporate governance and environment, labour law and the environment, and sustainable governance of the commons.

The General Election in July 2024 provided an opportunity for the University's Special Collections to add to one of their archives. With over 30,000 pieces of political promotional material from every British general election dating back to 1892, it is the UK's **largest archive of political material** and has been maintained by the University since the 1970s. Members of the public were invited to donate election-related leaflets they received rather than throwing them away after the election. This forms the basis of a fascinating collection of campaign materials, which are available for research and offer an insight into Britain's political history.



for our Law School
(QS World University
Rankings by Subject 2024)

Goal 17: Partnerships for the goals

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

Our research

A partnership of 20 research groups from around the world is aiming to improve global health by uncovering the effects of genomic and environmental diversity on differences in disease risk observed across the global population. Led by the University's MRC Integrative Epidemiology Unit, the groundbreaking five-year **Diverse Epigenetic Epidemiology Partnership (DEEP)** project will explore key population health questions using datasets from across African, Asian, and North and South American continents. There is huge variation in disease onset and symptoms for people living in different global regions but, up to now, many global communities are often under-represented in health studies.

The 1987 Montreal Protocol introduced international controls on the production and usage of chemicals which destroy Earth's ozone layer, which were once widely used in the manufacture of hundreds of products. A **new study** has revealed significant progress in the drive to reduce levels in the atmosphere of these chemicals, confirming the success of the regulations. Led by the University of Bristol, with partners from the USA, Switzerland and Australia, the findings show for the first time a notable decline in the atmospheric levels of potent ozone-depleting substances called hydrochlorofluorocarbons (HCFCs).

Our students

Many universities have committed to **embedding sustainable development into student learning** but there is a risk that it can become too generic or introduced as a tick-box exercise. The University's Academic Director of Sustainability has developed a **framework** for considering and integrating sustainable development into every undergraduate degree programme. The focus is on developing meaningful content which considers the motivations of the students in that discipline and builds on existing units.

We continue to support the **1 in 5 project**, which engages students in the climate and ecological emergency through final year projects. Examples of **undergraduate projects** and dissertations in 2023/24 included investigating how the Climate Fresk workshops, which are offered to students at Bristol, have an impact on the participants. It explored whether participation led to changes in knowledge, attitudes, behaviour and beliefs concerning climate efficacy.

Our communities

In June 2024, a **group of Bristol experts** attended the **Bonn Climate Change Conference** in Germany. The focus for our team was inclusivity and how the transition to net zero can be fair and equitable. Bristol

attendees from the Cabot Institute for the Environment provided expertise on climate justice, climate policy, equitable development, and climate law, and presented a session on building inclusive urban climate policy alongside representatives from the Youth Climate Councils Global Alliance, Green Africa Youth Organisation, and C40 Cities.

The UK and Switzerland host ten of Europe's top 20 research universities, and are recognised for their global innovation and forward-thinking research policy. Building on their history of collaboration, the University of Bristol's BioDesign Institute hosted the **Synthetic & Engineering Biology British-Swiss Summit** in May 2024. The inaugural event was devoted to understanding the opportunities presented by engineering biology technologies to drive collaborative innovation in healthcare with a focus on environmental sustainability.

Ourselves

A **partnership agreement** aiming to reshape the educational and economic landscape of the South West in pursuit of green goals was signed by the University of Bristol and Bridgwater & Taunton College. Focused on supporting the UK's transition to a net-zero economy, the partnership formalises the commitment of both institutions to leverage strengths and harness their collective experience and resources. Together, they will act as a catalyst for technological advancement, and drive the regional response to deliver the ambitious clean and inclusive growth strategy of Gravity, the UK's first smart campus.

City leaders joined students and staff at an event in March 2024 to **celebrate the University's role as a University of Sanctuary**, located in a City of Sanctuary. Attendees heard about the University's **Sanctuary Scholarship programme**, which has helped the forcibly displaced to study at Bristol since 2016 and has supported 76 talented people from across the world.

Scholars enrolled on the programme receive degree funding, pastoral care, careers advice and sports passes. The celebratory event also showcased art created during a two-day workshop called 'Finding Home in Education'.

