It gives me great pleasure to introduce this year’s Sustainable Development Goals report, which reaffirms the University’s strong commitment to creating a sustainable future, celebrates our achievements so far and shows our vision for the years to come.

I am proud that sustainability is at the heart of our University, not only in teaching and research, but in practice. We are working together to protect the planet.

Surrey was ranked 61st in the Times Higher Education (THE) University Impact Rankings in the period covered by this report, as outlined on page 36. Since then, we have risen to 55th in the global system which assesses universities’ performance against the UN Sustainable Development Goals (SDGs).

At the heart of our mission is the Institute for Sustainability at the University of Surrey, which under Founding Director Professor Lorenzo Fioramonti’s leadership, is tasked with maximising the positive impact of our sustainability-focused research and innovation. This includes multidisciplinary research on sustainable living, net-zero energy, clean air and sustainable prosperity – research areas that will receive additional funding from The Future Says Surrey, a new global fundraising campaign launched in February.

As part of our commitment to tackling current and emerging global challenges, we set the target of taking the University to Net Zero carbon emissions by 2030. To accelerate this process, we have partnered with SSE Energy Solutions to deliver a Heat De-carbonisation Project at Stag Hill and to create a 12.2MW solar facility on Blackwell Park to the west of Guildford.

Once complete, the Heat project will allow flow temperatures on our existing heat network to be reduced from 115°C to 80°C while the solar facility will improve our estate and resource efficiency by generating enough solar power to supply the equivalent of 4,000 UK homes each year.

The University continues to make progress in the electrification of its owned fleet used for day-to-day operations, in line with our target of the entirety of our fleet being electric by 2025, and we will work with SSE to provide students, staff or visitors with the opportunity to charge their EV or PHEV vehicles on campus.

Putting sustainability at the heart of the Surrey Community matters across our University but particularly to our students, which is one of the reasons why we have introduced a new undergraduate course in Environment and Sustainability BSc (Hons) at the Centre for Environment and Sustainability (CES).

The Students’ Union has created a sustainability badge to encourage clubs and societies to run their own campaigns, create new initiatives and support those of the wider University – in addition to organising awareness-raising activities during Sustainability Week.

As a University, our combined commitment to achieving our sustainability goals not only defines our culture and community but will enable us to shape the future for a fairer, healthier and more sustainable world.

Professor Max Lu
President and Vice-Chancellor
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NO POVERTY

STAFF AND STUDENTS

OUR COMMITMENT TO SOCIAL MOBILITY

We believe in everyone’s right to a diverse and representative society. Our aim is to ensure all learners with the potential to succeed at university can do so regardless of their background or personal experience.

As part of this commitment to widening participation, we launched our contextualised admissions policy in 2021. Contextualised admissions use additional information, such as socio-economic factors, which helps us understand the context in which applicants have achieved their qualifications, enabling us to identify performance and potential.

Through our contextualised admissions scheme, we give students an alternative offer to help overcome the disadvantages that poverty creates.

OUR STUDENTS’ DEDICATION TO ACTION

Our student community is committed to a range of projects that tackle poverty and inequality.

Launched in February 2021, our Student Success team offers proactive help and guidance to all members of our community. The team focuses on supporting students from lower-income families, as well as those who are disadvantaged, at-risk or disengaged. They continually seek to build specialised knowledge on pastoral support to help our students navigate university life.

The initiative provides a wide range of events for our students, including a safe space to talk about all kinds of subjects, as well as activities like the ‘Wellbeing Walks’, which allows students to meet our advisors and other students in a relaxed environment.

“The initiative provides a wide range of events for our students, including ‘Wellbeing Walks’, allowing students to meet our advisors and other students in a relaxed environment.”
TEACHING AND RESEARCH

21ST CENTURY SKILLS

We aim to send our students into the world with the skills that can help transform it.

Led by the University of Surrey, The Centre for the Understanding of Sustainable Prosperity (CUSP), has called for urgent deployment of new skills to lower carbon rates in supply chains across the UK economy.

CUSP’s recommendations include increased investment in renewable energy, building insulation, electric vehicles and public transport. CUSP is also focusing on low carbon industrial clusters that reduce emissions from industry, generate jobs, improve productivity, attract private investment and power up the new skills we need for the UK of the future.

PARTNERSHIPS

VIRUS HUNTER: ACCELERATING GLOBAL COVID TESTING

Our Vision, Speech and Signal Processing centre, together with our School of Veterinary Medicine academics have developed a diagnostic device that could speed up testing for Covid-19 and expand community testing.

The device, known as Virus Hunter 6 (VH6), uses artificial intelligence to speed up processing and test results via an app. It can test up to six samples simultaneously, deliver results in under 20 minutes and has been shown to be 99% accurate in trials.

VH6 reduces the need to send tests to a lab and could expand the capacity for community testing across the UK and globally. Inexpensive, the Virus Hunter 6 will make testing for Covid-19 more accessible in developing countries, in which remote communities may not have easy or immediate access to high-quality medical facilities.

Developed in collaboration with Brunel University, Lancaster University and commercial partner Vidiia Ltd, it was approved by the Medicines and Healthcare products Regulatory Agency and has CE marking.
During the pandemic, our student community volunteered their time to provide additional support with delivering food, essential supplies or checking in on isolating students. Over 210 students became self-isolation buddies and were vital in front-line support for those required to self-isolate.

Following Marcus Rashford’s campaign for extending Free School Meal vouchers across the 2020 Christmas holidays, the University of Surrey Feminist Society was inspired to act, organising a food drive in the local area. Our student-led Donate to Help Out campaign worked with local food banks to identify vulnerable individuals and key stakeholders to understand which food items would go the furthest in supporting children throughout the Christmas holidays. According to a YouGov poll by the charity Food Foundation, 2.4 million children (17%) in the UK are currently living in food-insecure households.
TEACHING AND RESEARCH

BUILDING RESILIENCE IN DROUGHT-PRONE SUB-SAHARAN AFRICA

Food insecurity and poverty remain widespread in Liberia and are now on the rise. 18% of households were found to be using emergency coping strategies, with many being forced to supplicate for food on the street.

Our academics observed how low-income families in Malawi, Mali and Liberia who rely on subsistence farming, often increase their earnings through ‘Artisanal and Small-scale Mining’ (ASM). This helps them stabilise their income when their farming is affected by climate-induced shocks and stresses in these drought-prone areas.

Our researchers suggest that support and acceptance of ASM by governments and large agencies could strengthen this much-needed route out of food insecurity and poverty. Millions of sub-Saharan African families, who have suffered tremendously from the pandemic, could benefit from their hard work and diversification being legitimised and supported.

PARTNERSHIPS

SURREY STUDENTS’ FOOD DRIVE

Each year, the University of Surrey Students’ Union (USSU) runs the ever-growing Get Giving Guildford food drive. Since 2015, Get Giving has helped students and members of the public donate over 4,000 items of food to local foodbanks.

The drive’s collection of non-perishable food and unused bathroom items becomes more important year by year. Since the pandemic, Guildford has seen a 25% increase in Foodbank usage.

The campaign also stops tons of usable goods from going to landfill.

KEY STATS

100+
COMMUNITY-FOCUSED PROJECTS AND INITIATIVES

11,666
STUDENTS PARTICIPATED IN WIDENING, PARTICIPATION AND OUTREACH ACTIVITIES

surrey.ac.uk/sustainabledevelopmentgoals
GOOD HEALTH AND WELLBEING

In 2021, we unveiled a commemorative mural to honour our health sciences students who helped fight the Covid-19 pandemic across the UK.

The mural celebrates students who went into paid placements, organised in conjunction with NHS England and Health Education England, for the final part of their degree programme. These students were employed to support colleagues across various settings, assisting with the care of patients suffering from Covid-19.

All our 2020 final-year health sciences students rose to the challenge and completed their professional qualifications and degrees while working full-time.

More than 300 of our students were deployed during the first wave of the pandemic, each playing an integral role in the NHS’s ongoing service to the nation.

Our students’ physical and emotional well-being is a key priority for us. The Centre for Wellbeing offers a range of services to ensure that our students feel well and supported throughout their time at the University. We offer advice and support for mental, emotional and psychological issues.

Our wellbeing team consists of professional counsellors with experience in supporting our students in all aspects of their lives, at University and beyond. Like all our Centre for Wellbeing services, our counselling sessions are free and confidential.
TEACHING AND RESEARCH

REDUCING RELIANCE ON ANIMAL EXPERIMENTS IN CARDIOVASCULAR SCIENCE

In the UK alone, 7.6 million people are currently living with heart or circulatory disease.

Our researchers have developed a process using lab-grown pig heart tissue that replicates what happens inside the heart after cardiac arrest.

Our team treated epicardial slices with stimulating compounds, showing that cells become activated in a way that replicates what happens in the heart after a heart attack. The new process reproduced observations typically obtained in live animal models.

These findings open new avenues for studying heart regeneration while reducing the use of live animals during research.

PARTNERSHIPS

SURREY HEALTH TECH ACCELERATOR

We are proud to be a partner and central player with Surrey Heartlands Health Tech Accelerator (HTA). The partnership provides a collaboration point for citizens, researchers, industry innovators and the health and social care system in Surrey Heartlands.

With our HTA partners, we aim to improve the healthcare system by supporting innovation.

The organisation draws on the research, clinical, commercial and business expertise of its partners, with the aim of improving: health and well-being of citizens; health systems that support citizens; and support for local Small and Medium Sized Enterprises (SMEs) to drive economic growth.

HTA also aims to speed up the adoption of technology that is nearly market-ready into our healthcare services, prioritising those that are a match for areas of need in our healthcare systems. In 2022, Yorbil Technologies became the first Technology Enabled Care Services company to join us at HTA. Yorbil is a UK start-up focusing on using its technology to help people to live healthily, independently and safely for as long as possible.
Our University strategy 2021-24, *Forward Thinking. And Doing*, reaffirms our commitment to lifelong learning. We developed a challenging strategy with five broad goals prior to the pandemic. These long-term goals will remain unchanged, but the roadmap to reach them has been revised to reflect the changing world. Our priorities for the next three years address the core of what we do:

- **Drive student experience**
  Deliver an excellent student experience for all students of every background.

- **Focus research intensity**
  We will focus our resources and support on existing and emerging areas of excellence.

- **Create the conditions for success**
  We will foster talent and create an environment where all our staff, students and postgraduate researchers are empowered and supported to flourish, valuing each and every contribution.

The University of Surrey Library is a fabulous space in an instantly recognisable gold and glass building at the heart of our Stag Hill campus. Our library offers study spaces, resources, archives and special collections, as well as staff expertise, support, outreach and public engagement.

We welcome members of the public, as well as researchers and students from other institutions. Visit [surrey.ac.uk/library](http://surrey.ac.uk/library) to see our opening hours during vacations, closure and observance days.
PARTNERSHIPS

A PINT OF SCIENCE

Pint of Science is a worldwide science festival that brings researchers to a local pub/caffe/space to share their scientific discoveries with the general public.

This year, our researchers ventured into Guildford to explain their research over a pint (or other beverage). 23 Surrey academics gave 17 talks in 2 venues over 3 nights. Talks ranged from Artificial Intelligence to Sustainability. Our researchers answered important scientific questions such as "An Act of Dog: what’s lurking in your salad?" and "The human brain and AI - What makes them so different?".

SURREY SCHOLARS

This year, our Widening Participation & Outreach Team launched its new programme - Surrey Scholars.

This sustained programme of on-campus and virtual events engages learners in Years 10 to 13 from under-represented groups. It encompasses attainment support, university information, aspirations and career information and transition support.

The programme aims to create a Surrey Community and sense of belonging for learners to empower them to make confident informed decisions and, when it’s right for them, to progress to Higher Education.
Springboard is the award-winning, globally recognised personal development programme for women.

Springboard aims to enable women to develop personally by learning and thinking deeply about their skills, their values, their world, skills for assertiveness, how to network, put themselves across positively, build personal image, and set goals.

At the end of the four-day programme, women testify to increased levels of confidence; increased ability to create and embrace change; strive for new qualifications, promotion and how to achieve new skills and develop new outlooks.

Sprint is our ground-breaking professional development programme open to all our female undergraduates and Foundation year students.

Completely free, Sprint addresses University issues, future work-life balance challenges, and enables our students to explore personal development and wellbeing strategies. Importantly, Sprint allows our female undergraduates to explore their personal development and wellbeing, including the following:

- Achieve results such as improved visibility, concentration, and effectiveness in studies
- Improved time management for revision and essay writing; less study stress; and improved self-efficacy
- Sharpen career goals, raise aspirations, and take advantage of networking opportunities
- Work through complex relationships and gain a healthier work/life balance.

Students receive a digital badge after completing the programme and activities. The programme also counts as significant evidence if taking part in our Employability Award scheme.
Surrey Women in Engineering Society is an important organisation within the University. It aims to influence, motivate and support female engineering students by providing social, educational and networking opportunities. The network continued to thrive during the challenges of Covid-19.

The Society’s busy 2021 programme included virtual games nights and quizzes, industry talks from Lockheed Martin and Caterpillar, an alumni event, and talks from lecturers within the Faculty of Engineering and Physical Sciences. This year, the Surrey Women in Engineering Society has plans for social meetups, and workshops aimed at helping students to build their confidence in order to take on managerial roles in group projects.

We seek to fully harness our people’s talents, creativity and skills and maintain our continuing commitment to equality, diversity, and inclusion across the broader community.

We launched our Equality Diversity and Inclusion (EDI) Plan 2020-2025 in October 2020 to outline our key EDI strategic priorities.

The aims of our strategy are to:
• Develop our inclusive and supportive culture
• Eliminate discrimination, harassment and victimisation
• Advance equality of opportunities

Our EDI Plan applies to everyone who visits, works and studies with us and, more broadly, anyone associated with us.

CAMPUS AND OPERATIONS

EQUALITY, DIVERSITY AND INCLUSION AT SURREY

TEACHING AND RESEARCH

SURREY WOMEN IN ENGINEERING SOCIETY
We are working to lessen the environmental impact of our water consumption by reviewing not just demand, but how it is consumed. In 2020, we installed 11 additional water bottle refill points across campus in high traffic areas which are open for use by our students, staff and visitors. We’ve also pledged to phase out single-use plastic cups across campus and have begun to replace them with 100% compostable cups. 45% of hot drinks are now purchased in reusable cups, compared to 5% in the previous year.

We set an ambitious target to hit a 15% water reduction target compared to a 2017/18 baseline. With the combined impact of the pandemic and an expected increase in residences over this time, we exceeded this target in four ways:

- **Leak Detection**
  This was done through a combination of the installation of strategic meters, pattern analysis, increasing reporting and a range of other methods, including using heat-vision cameras.

- **Reducing consumption**
  Through changes in equipment, behaviour and usage in residences and academic buildings.

- **Independent supply**
  Our Stag Hill campus is supplied from an onsite borehole, reducing costs and the energy required in transportation.

- **Preventing waste**
  Installation of intelligent controls and reducing flush and flow rates across campus.

We exceeded this target and will continue to monitor and review our water usage with our key stakeholders:

- Total Water Consumption in baseline period 2017-18 = 414,080 m³
- Total Water Consumption in the period 2020-21 = 271,967 m³
- Total Water extracted from the Stag Hill borehole from December 2020 to July 2021 = 90,000 m³
In December 2020, our University Estates and Facilities team completed a project to equip a borehole, drilled 132m into the underlying chalk aquifer at our Stag Hill Campus.

The borehole project has given us the means to extract clean drinking water for consumption on campus and can provide over 1,000,000 litres of water a day. The borehole increases the resilience of our supply, reduces costs and carbon emissions associated with pumping, and provides teaching and research opportunities.

Now operational, the borehole provides 95% of our Stag Hill Campus water demand.

Our researchers are helping the World Health Organization (WHO) revise its guidelines for safe drinking water.

Without a reliable source of clean water, a safe, dignified, and healthy life is not possible. Much of the global population receives drinking water from small water systems that range from individual household wells to piped supplies. However, small systems face specific challenges that impact their ability to deliver safe and adequate drinking water.

Our academics have established a framework to improve water safety planning (WSP) of these drinking-water systems, which could significantly improve public health, well-being and livelihoods, while addressing inequalities.

Our findings will support the World Health Organisation and a range of stakeholders whose involvement is required for the success of safe drinking water.

Our researchers are helping the World Health Organization (WHO) revise its guidelines for safe drinking water.

The University of Surrey is leading the way on global water quality. It is one of only two institutions in the UK designated as a Collaborating Centre for Protection of Water Quality and Human Health by the World Health Organization (WHO).

The WHO is the international authority on public health and water quality, and leads global efforts to prevent transmission of waterborne disease.

Globally, vast numbers of people rely on small drinking water supplies, including some parts of the UK that depend on water from private wells or boreholes rather than large, regulated organisations that manage water regionally.

Dr Kathy Pond and her team at the Centre for Environmental Health and Engineering have examined how water supplies are kept safe, what checks are made on the water and how the resultant data is used. The team’s findings have been incorporated into the revised WHO guidelines around water quality and health.
Our student community took part in Reduce the Juice, an engagement campaign aimed to promote sustainable behaviour and educate staff and students on how to create a sustainable global future.

This sustainability programme consisted of seven sustainability and environment-focused webinars covering various topics, including greenwashing, sustainable energy, and other issues. At the end of each webinar, a challenge was issued. Throughout March 2020, all University of Surrey halls of residence competed to save the most energy, and the winning hall received £250 spent on a prize of the residents’ choosing.

As we tackle climate change, environmentally-friendly solar technology is growing in importance. Solar panels contribute to solving the energy crisis and reducing the impact of fossil fuels on climate change.

However, most commercial solar panels use silicon, which results in rigid, heavy and costly panels.

Surrey researchers are focusing on exciting new perovskite solar cell technologies, which harvest energy with high efficiency via a flexible, lightweight and semi-transparent material.

Research from our academics shows that the lighter, more flexible perovskite could lead to solar cells that perform better, potentially helping the UK reach its 2050 carbon-neutral goal.
PARTNERSHIPS

IMPROVING AIR QUALITY FOR CHILDREN

Founded and led by Professor Prashant Kumar and his team at the Global Centre for Clean Air Research (GCARE) at Surrey, the Guildford Living Lab is a platform for cooperation between researchers, local communities and stakeholders.

Its vision is to raise awareness of air pollution and climate change and co-create and co-design sustainable solutions.

A great example of local research going global is the recently published booklet, Mitigating Exposure to Traffic Pollution in and around Schools, outlining ten general recommendations that schools and communities can follow to improve air quality for children.

The guidance booklet has been published in 11 languages and is used as far afield as China and South America. The guide provides actionable advice and tangible measures which can be taken to improve the air children breathe in and around schools.

SURREY ENERGY PARTNERSHIPS

The University of Surrey is proud to be a part of the Surrey Energy Partnership, an open and collaborative network for all organisations with interest in (and impact on) clean, fair and sustainable energy. With a focus on delivering projects and action, the partnership links to national and regional strategies while building on local and county-wide strengths.

The aim is to help Surrey businesses, organisations, and individuals benefit from the clean energy revolution and be resilient to change while reducing our collective carbon impact. Our vision is to accelerate the transition to clean, fair and sustainable energy across Surrey and beyond.

The Surrey Energy Partnership also includes representatives from Surrey County Council, Enterprise M3, SSE Enterprise, ThamesWey Group and the Surrey Climate Commission.

surrey.ac.uk/sustainabledvelopmentgoals
DECENT WORK AND ECONOMIC GROWTH
ATHENA SWAN AT SURREY

In 2020, Surrey Business School was awarded its first Athena Swan Bronze Award and has since launched its Athena Swan Implementation Team: Values in Action (ViA). The award recognises the work Surrey Business School has undertaken to create an inclusive culture that values all staff. The ViA team is working hard to ensure the values and plans outlined in the Athena SWAN submission are fulfilled.

The School aims to apply for an Athena Swan Silver Award in May 2023, hoping the award will reflect its hard work and dedication to narrowing its gender pay gap (a review project planned for 2022) and maximising career progression opportunities for women, among many initiatives.

The number of schools or departments that hold an Athena Swan award has risen to twelve – Mathematics, Music and Media are the latest. The remaining ten schools and departments are all working hard to expand their Athena Swan values and will submit their own plans over the next 18 months.

OUR PROFESSIONAL TRAINING PLACEMENTS

The University of Surrey gained the prestigious accolade of University of the Year for Graduate Employment in the Times/The Sunday Times Good University Guide for 2022.

The honour celebrates our commitment to bringing the best and most beneficial placements to our students, alongside our consistent focus on employment preparation within our curriculum, and other valuable student opportunities.

The many options for Professional Training Placements at the University allow our students to soar; professionally, academically, and personally.

Placements equip them to stand out in their future workplaces as adaptable, resilient, globally-minded, entrepreneurial and digitally confident.

We partner with over 2,300 national and international businesses of all sizes and sectors to bring our students the best and brightest opportunities.

WHERE PEOPLE FLOURISH, SO DOES BUSINESS, SAY SURREY ACADEMICS

Sustainable prosperity means all people can flourish as human beings, within our planet’s ecological and resource constraints.

Led by the University of Surrey, the Centre for the Understanding of Sustainable Prosperity (CUSP) is an internationally leading research organisation committed to these aims.

Directed by Surrey’s Professor Tim Jackson, CUSP embraces a rich international network, drawing together expert partners from academic and non-academic institutions to achieve its goals.

These goals point to a prosperous society valuing income and financial wealth alongside the health and wellbeing of citizens, ensuring their prospects of good education, and decent and rewarding work.

CUSP’s findings make it clear that people with higher levels of wellbeing tend to report higher levels of labour productivity. The relentless pursuit of productivity growth is potentially counterproductive - not only in terms of worker wellbeing, but also long-term productivity.

12 SCHOOLS/DEPARTMENTS HOLD ATHENA SWAN AWARDS

PARTNERING

2,300 BUSINESSES OF ALL SIZES & SECTORS NATIONALLY AND INTERNATIONALLY

surrey.ac.uk/sustainabledevelopmentgoals
STAFF AND STUDENTS

SURREY DIGITAL INTERNS

Launched in 2020, our Digital Internship Programme offers our talented students and graduates 20 internships with small to medium-sized enterprises (SMEs). Thanks to generous funding from Santander Universities and the ERA Foundation (one of Britain’s leading independent consulting organisations), provided in response to the Covid pandemic, our interns benefit from paid work while taking on diverse digital roles.

10 internships take place with our Student Enterprise Start-Ups and 10 via the Surrey Research Park and SETsquared, a world-leading university-business network.

Moe Ahmed joined Clutch Space Systems for six weeks to support their Digital Marketing and Content Development needs:

“As someone with future venture aspirations, this internship helped me understand the market distribution for SMEs and big organisations. Clutch Space allowed me to bridge my technical capabilities and business skills.”

TEACHING AND RESEARCH

UNIVERSITY LIVING LAB

The University of Surrey’s Living Lab enables collaboration between students, staff, academics, community partners and others to apply innovation to real-world issues, using the University campus and nearby communities as testbeds.

A prime example of Living Lab is the Global Home Demonstrator project led by Dr Christopher Jones and funded by the Government’s Innovate UK. With its new approach to home production, the project demonstrated Global Home’s modular, smart (ie digitally enabled) home concept on the University campus. The project is worth £8m and ran for 24 months, from April 2020 to March 2022.

“Collaborating to apply current research and innovation to real-world issues.”

KEY STATS

LIVING LAB WORTH

£8 MILLION

RAN FOR 24 MONTHS FROM APRIL 2020 TO MARCH 2022

10 + 10

DIGITAL INTERNSHIPS WITH STUDENT ENTERPRISE START-UPS

DIGITAL INTERNSHIPS WITH SURREY RESEARCH PARK SETSQUARED SMES
Our Student Enterprise programme offers practical business support to our entrepreneurial students from all disciplines who aspire to run their own business, create a social enterprise and develop enterprise skills within their careers.
We established the Surrey Embracing Ethnic Diversity (SEED) network to support Black, Asian and minority ethnic staff.

The SEED network meets monthly to develop, reflect and communicate the needs and feelings of non-white staff. It provides a safe place to connect and support each other. The network regularly shares its experiences via its [blog](#) and the University website.

In September 2021, the SEED network hosted a week-long celebration of the many cultures at Surrey with a wellbeing walk, video discussions and a cookbook. For Black History Month, SEED ran ‘Black Excellence: Career Journeys’. This panel event shone a spotlight on the achievements of our Black staff, alumni and external colleagues, offering insights into their inspirational experiences as they navigate successful careers in a wide range of sectors.

We have consulted widely in creating an action plan to increase our support for our colleagues and students with health conditions or impairments. We are committed to making our University disability-smart by ensuring adjustments and support are in place for all who require them.

In 2020, we launched the Surrey Sunflower initiative to support people with hidden disabilities or invisible illnesses. Wearing the sunflower discreetly indicates that the wearer may need extra support, understanding or time.

Our work towards disability equality on our campus is guided by the [Business Disability Forum](#).
PARTNERSHIPS

VIRTUAL SUMMER SCHOOLS

We continue to make a significant and increasing investment in Widening Participation.

The University is the lead partner of the Higher Education Outreach Network (HEON), which works to increase progression rates of students currently under-represented in Higher Education.

HEON aims to inform schools and colleges in Surrey, Hampshire and East Berkshire of the range of outreach activities available.

Responding to the Covid-19 pandemic, HEON’s Summer School went virtual in 2020. The School included a programme of live and recorded activities such as: subject tasters; information and guidance on options and money; mental health and well-being; and social activities. The programme was designed to be flexible, with students encouraged to participate in the live sessions, or later if more convenient.

Seventy students took part and 98% said they felt confident they could study at a university in the future, and 96% said they felt they’d belong at a university.

INSPIRING FUTURE GENERATIONS

Our formal partnership with local secondary school Kings College, Guildford, has entered its fourth year and continues its successes and evolution.

Our partnership embeds dedicated Widening Participation and Outreach (WPO) staff members at the School to deliver our bespoke ‘Finding Our Futures’ programme. This programme incorporates aspirations and attainment activities, enriching and building on the School’s curriculum. The programme enhances extracurricular activity and supports the School’s personal, social, health, economic, spiritual, moral and cultural curricula.

Students also participated in a virtual work experience week, in which they could explore career options and progression pathways.

WPO worked with teachers to launch reading interactions with young people. The nine month pilot improved reading ages by approximately 22 months.
Our students and staff are actively involved in our local community, participating in a wide range of volunteering activities. The University of Surrey Students’ Union (USSU) created a Community Zone which brings our student community together, integrating them into the local community, and ensuring volunteering opportunities are available for all students.

The Investing in Volunteers Quality Standard (IiV), which monitors good practice in volunteer management in the UK, has recognised the excellent work of the USSU volunteers. During 20/21, our students recorded 30,100 hours of volunteering, through 77 different charity partner opportunities. We now have over 4,341 students registered to volunteer with Surrey Volunteering.

Following our 2020 commitment to a carbon target of Net-Zero by 2030, we continue our work to reduce our impact.

To achieve our emissions targets, we’re reducing our demand, increasing on-site renewable energy generation, increasing the amount of energy purchased from verified renewable sources, and considering how transparent offsetting schemes can cover what we can’t eliminate. We’ve increased the number of electric vehicles in our fleet, and 18 of the 42 cars in the fleet are now fully electric or hybrid. By 2025, we plan to increase this number to at least 34, potentially increasing this further as the market for commercial electric vehicles develops.
Local culture plays a central role in shaping community development and character.

We continue to work with our local community to promote sustainability on a local, national and global level.

We provide our local residents with a range of opportunities to participate in our educational, cultural and social activities and opportunities for international audiences to engage with our research. In total, 26,134 people attended public events such as art performances, lectures and demonstrations held by the University in 2020, including 19,649 attendees at free events.

Our year-round performing arts programmes attracted 7,636 people, including 115 ticketed events and 49 free musical and theatrical performances and workshops. The University also engaged with approximately 150 musicians for their two Orchestra Days.

Arts and Culture contribute significantly to the local economy and improve community welfare.

Our academics conducted a study on the economic and social impacts of the arts in Surrey. They found that for every £10 spent at a venue, there is an additional spend of up to £13.28, which stays in the local economy.

With the help of the University’s Small and medium-sized enterprise (SME) Innovation Voucher scheme, we have partnered with the Yvonne Arnaud Theatre, Artists Village in Compton and The Lightbox, funding innovative and collaborative projects between SMEs and our world-class academics.

This collaboration showed the economic and social contributions of each organisation. Community, business and the arts all benefit from engagement activities that increase community involvement. Arts organisations offer specialist knowledge and expertise to support social inclusion, leading to better community, which benefits people and businesses.
The Future Says Surrey is our new global philanthropic campaign for innovative research and student scholarships. Over the next three years, it aims to raise £60 million to invest in our leading research and to support students from diverse backgrounds to thrive at Surrey.

The Future Says Surrey demands a future where sustainability is built into every product, programme and political policy. The campaign will support and fund ground-breaking research and work, including exploring ways to reduce the impact of climate change and help society live more sustainably in all aspects of our lives.

Funding from the campaign will support the next generation of solar energy capture and storage technology. It will boost our Global Centre for Clean Air Research in its efforts to mitigate the effects of air pollution around the world and will support our Centre for the Understanding of Sustainable Prosperity.
**TEACHING AND RESEARCH**

**ENERGY-HARVEST TECHNOLOGY TO MAKE ROADS SAFER**

Our engineers used recycled plastic cups and silk cocoon waste to develop a soft and skin-friendly self-powered sensor, which can be used to sense human activities.

When coupled with an AI system and applied in a vehicle, the smart sensor could flag potentially dangerous driving trends, including slow brake reaction times. Used either as a wearable item on clothing or placed within the fabric of the steering wheel, horn, gear stick and brake pedal, it provides real-time feedback on the driver’s actions, which allowed the AI system to compute performance.

The recycled silk-based smart sensor technology hints at what the future holds. Our engineers believe we can soon bring this cutting-edge technology to market with support from the industry.

**UNDERSTANDING MASS CONSUMPTION WITHIN THE CLOTHING INDUSTRY**

The clothing industry is responsible for high environmental impacts, and many of these impacts arise through decisions made in the design stage. The Surrey-led Centre for the Understanding of Sustainable Prosperity (CUSP) published research examining the fashion design process practised at the mass-market level.

CUSP found the mass-market design process prioritised profits rather than aesthetic aspects, with the buyer exercising more power than the designer. This process hinders creativity, which, in turn, may impede a move towards more environmentally benign designs.

This research fills the gap by developing a framework showing the mass-market design process. Understanding the design process will enable progress to be made towards achieving responsible consumption and production.

**PARTNERSHIPS**

**RECYCLING TECHNOLOGY AND FURNITURE TO OUR COMMUNITY**

The University of Surrey joined forces with the SocialBox.Biz to donate laptops to help to reduce digital exclusion in Guildford. The laptops were refreshed, loaded and offered to Guildford’s homeless people. Action like this will help people get back on their feet, communicate with loved ones, connect with education, and apply for jobs.

Four groups from the University teamed up to donate and re-use University furniture: Space Management; Portering; the Higher Education Outreach Network (HEON); and Widening Participation and Outreach (WPO).

The teams worked with six local schools to donate office chairs, electronic pianos, keyboards, filing cabinets and chemistry glassware. The drive also helped reduce waste and increase re-use. 179 items were donated to six local schools.
We are proud to be one of the first universities in the world to announce a science-based target for emissions reduction, alongside our Net Zero by 2030 target. This target will enable the University to do its bit in limiting the global temperature rise to 1.5°C. We’ve used an internationally recognised methodology to quantify the University’s fair share and had it validated by external consultants. Our methodology, backed by science, gives us a target for our carbon reduction each year that we have committed to meet. Our target includes our direct emissions from electricity and gas, fleet vehicles, and fugitive emissions from refrigerants.

Climate change is one of our greatest challenges. Our researchers have discovered how tin-based gas sensors can monitor harmful emission sources, such as nitrogenous gasses. N₂O is a long-lived greenhouse gas that is almost 300 times more potent than CO₂ over a 100-year period and is the third-largest contributor to climate change after CO₂ and methane, so it is essential to monitor it. By developing nanostructured gas sensors made from tin, these devices could help track and control emissions and have the potential to assist in tackling climate change.

Our researchers’ discovery could help track and control emissions

We’ve been granted £3m to design perovskite solar cells for use in wearables and Internet of Things (IoT) devices. Crystalline silicon solar cells dominate the market – but they can’t power the portable electronics market or the trillions of wearables and IoT devices expected to be sold in the coming years. More than 20 billion IoT devices are already on the market, and 127 new devices are connected to the internet every second. It’s hoped that perovskite photovoltaics could help meet some of the demand for cheap, scalable energy sources for these technologies. At Surrey, we’re creating technology that can bridge the multi-scale energy needs of emerging markets – and beyond this, also tackle the challenge of our age: climate change. Perovskite photovoltaics are a key part of the puzzle in meeting the UK’s net-zero emission target by 2050.
PARTNERSHIP

UNIVERSITY LEADS COUNTY’S CHARGE TO TACKLE CLIMATE CHANGE WHILE BUILDING ECONOMY

Coinciding with the United Nations’ Climate Change Conference in Glasgow, the University of Surrey hosted two public events in 2021, examining how the county of Surrey can move to Net-Zero by 2050 while achieving economic growth.

The events were part of the Economic and Social Research Council’s (ESRC) Festival of Social Science 2021, a UK-wide, free celebration of the social sciences.

“At COP26, world leaders looked at the big picture, but each area has a role to play in tackling climate change.”

Professor Amelia Hadfield, Dean International, Director of the Centre for Britain and Europe at the University of Surrey who organised both events, said:

“At COP26, world leaders looked at the big picture, but each area has a role to play in tackling climate change.”

surrey.ac.uk/sustainabledvelopmentgoals
Our Water and Environmental Engineering MSc attracts UK and international graduates who share the global interest in water quality, sanitation and integrated water resources management.

Our MSc transforms students into experts on water and environmental sustainability, ready to tackle the industry’s complex challenges.

Our industry leaders teach this fully accredited course from our Centre for Environmental Health and Engineering (CEHE). This sits within our Department of Civil and Environmental Engineering and is a designated World Health Organization Collaborating Centre for the Protection of Water Quality and Human Health.

The Water and Environmental Engineering MSc is increasingly popular and relevant to the needs of future engineers, scientists and professionals in environmental health, water quality, sanitation, water resource management, pollution control and other sectors.

We’re one of the only universities in the UK to offer MSc courses in civil and environmental engineering through distance learning.

The World Health Organization (WHO) Collaborating Centre exists to protect water quality and human health.

Our research into small water supplies focuses on water that poses a particular risk to public health. Our researchers work with the World Health Organisation to improve risk assessments for small water supplies. We have developed films, shared by the WHO, to help communities who use small water supplies carry out risk assessments to identify potential hazards to the water supply.
The World Health Organisation’s (WHO) sanitary inspection (SI) forms need an urgent upgrade to help improve the quality of small water supplies in some of the world’s most rural and vulnerable regions, our University researchers have said.

SI forms are essential tools used globally to identify risks in water supplies. According to the WHO, many of these drinking supplies – such as groundwater found on farms or a well in rural communities – are not regularly monitored and inspected. Importantly, it is feared that such supplies do not provide safe or sufficient drinking water for the communities they serve.

Surrey researchers examined whether the SI forms are robust and consistent enough to give inspectors – many of whom do not have specialist knowledge in water safety – proper guidance to identify risk correctly.

The University’s team has recommended that questions in the SI forms be revised to ensure that inspectors interpret them consistently – providing them with targeted technical guidance for each question. The team also recommends that the forms give the inspectors action points to help with essential operation and maintenance of water supplies.

PARTNERSHIPS

IDENTIFYING RISKS IN WATER SUPPLIES

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THE GOVERNING PLASTICS NETWORK

The Governing Plastics Network was jointly created by the University of Nairobi in Kenya and the University of Surrey in the UK and is funded by UK Research and Innovation (UKRI) through the Global Challenges Research Fund (GCRF).

Since the Network was established, we have broadened our reach, creating new projects with partners across Europe, East Africa, the Caribbean, Brazil and Australia. Research across our projects is funded by the UKRI/GCRF, and other important scientific bodies.
Listed as vulnerable to extinction in Britain’s red list for mammals, hedgehogs have been subject to significant conservation efforts.

We work hard to preserve our local hedgehog population. In recognition of this, the British Hedgehog Preservation Society has awarded us a Silver Award.

Simon Smith, the University’s Horticultural and Landscape Manager, has built a diverse and enthusiastic project group which has worked together on initiatives such as tracking surveys and awareness-raising.

The Hedgehog Friendly Campus scheme aims to raise awareness of the risks and challenges faced by hedgehogs while taking practical steps to revive hedgehog populations by improving habitats and circumstances for hedgehogs across university campuses.

We’re seeking to attain a Gold Award for our Hedgehog Friendly Campus accreditation in 2022.

Set among the rolling hills of the Surrey countryside, our campus is a beautiful, leafy environment with carefully designed gardens, vibrant green playing fields and a picturesque lake.

We’re preserving and increasing the biodiversity of our campus. Some successful measures we have taken include:

- Installing eighty upcycled bird boxes across campus in time for the bird nesting season
- Implementing a new irrigation system which has improved water conservation
- Transitioning towards using electric vehicles and equipment by the Grounds team to save fuel and reduce noise and disruption
- Replacing the oak board edging of a pond on our Stag Hill campus to prevent water waste.

We aim to strengthen our biodiversity strategies by adding wildlife and tree risk management policies. This year, we’ll be collaborating with the Surrey Garden Society to plant bee enhancing trees and create solitary bee boxes from upcycled materials to be used across our estate.
TEACHING AND RESEARCH

SOILLESS BIOMASS ENERGY

Researchers from our Centre for Environment and Sustainability (CES) are developing a cultivation method that can quickly grow crops without soil to create biomass energy. Producing heat, power and liquid transport fuels from biomass instead of fossil fuels could offer a wide range of environmental and socioeconomic benefits.

This innovative CES project has recently won £200k funding from the Department for Business, Energy and Industrial Strategy (BEIS). Our research demonstrates how growing crops without using soil (aeroponic technology) creates rapid production, and examines the energy and environmental pros and cons.

Led by Dr Zoe M Harris, our academics are confident that our soilless cultivation method can play a role in helping the UK build a greener energy strategy, with biomass energy at the centre.

Nursing the planet back to health is a key priority and we believe biomass will be vital in reaching our global energy and climate targets.

PARTNERSHIPS

SURREY HILLS SYMPOSIUM

The Surrey Hills (an Area of Outstanding Natural Beauty) Symposium 2021 was an event in partnership with the University of Surrey. A panel of national, regional and local experts took part in a series of debates to explore the impact of climate change on our landscapes and the need for action.

The debates highlighted that we need to take an integrated approach of intelligent choices to deal with the twin crises of mass animal and biodiversity extinction and the global rise in average temperatures.

Before the online debate, artists gave talks and workshops demonstrating the crucial role creative practitioners play in the crisis by inspiring wider audiences to enjoy and care for nature.
The UN75 initiative asked people to “join the conversation” and present ideas for tackling the challenges we face. Through UN75, the UN encouraged people to put their heads together to define how enhanced international cooperation can help realize a better world by 2045, the UN’s 100th birthday.

To mark this occasion, our Department of Politics, the Politics Society, and the Model United Nations (MUN) Society hosted a dialogue over zoom with academics from different schools and departments across the Faculty of Arts and Social Sciences (FASS).

Our academics addressed a wide of topics, including “will the world be better off, worse off, or the same in 2045?” through the lens of hate crime.

In summation, our event explored the UN’s past, present, and future role at 75. We saw enthusiasm shared by students and staff across and beyond the faculty. The result was a hugely engaging and challenging conversation about the UN’s relevance, reliability, and requirements, both now and in the years to come.
TEACHING AND RESEARCH

KEY PLAYERS COOPERATE TO CREATE FAIRNESS IN AIR QUALITY

Our Global Centre for Clean Air Research (GCARE) has a worldwide reach. Now its Guildford Living Lab (GLL) is working with the UK’s Green Party to set up local town Woking’s first air pollution monitoring network. This will measure pollution levels around the town over 12 months, using eight portable sensors.

The GLL team, led by Professor Prashant Kumar, conducted assessments of the sensors in our state-of-the-art laboratories. GLL will work closely with the Green Party to evaluate the results after three, six and 12 months, to give a full picture of pollution levels throughout the year.

SHAPING GOVERNMENT POLICY

World-renowned vitamin D expert Professor Susan Lanham-New, Head of the Department of Nutritional Sciences at the University of Surrey, played a pivotal role during the Covid-19 pandemic in advising Government policy on vitamin D and its possible link to upper respiratory tract infections.

Before 2016, there were no national guidelines for the consumption of Vitamin D, essential for bone growth and health. A lack of Vitamin D means that our bodies cannot absorb calcium, a major cause of osteoporosis, costing the NHS around £2 billion a year.

Professor Lanham-New’s research across the life cycle and different ethnicities led to the first-ever reference nutritional intake (RNI) for Vitamin D, setting a minimum intake that meets the needs of 97.5% of the population.

The impact generated by the team’s research has played a crucial part in raising health expectations throughout the UK.

KEY STATS

HELPED BY SURREY RESEARCH THAT SETS FIRST EVER RNI FOR VITAMIN D

97.5% OF POPULATION

COST TO NHS THROUGH ILLNESSES FROM LACK OF VITAMIN D

£2 BILLION

surrey.ac.uk/sustainabledevelopmentgoals
The University of Surrey ranked 61st in the 2021 Times Higher Education (THE) University Impact Rankings, a global ranking of universities based on contributions toward the UN Sustainable Development Goals (SDG).

We provided evidence to show how we contribute to 13 of the 17 SDGs, an increase on the eight submitted in the 2020 rankings.

One of our highlights within the 2021 THE rankings was achieving fourth position in the UN’s Decent Work and Economic Growth goal (SDG8). This UN goal aims to promote “sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”

We signed the SDG Accord mentioned above as part of our ongoing commitment to social responsibility and environmental sustainability. The Accord calls upon universities and colleges to embed the SDGs into everything we do - our education, research, leadership, operations, administration and activities. By signing the SDG Accord, the University commits to involving students, academic, professional staff, local communities and external stakeholders to help achieve the SDGs. This includes collaborating with other institutions and sharing our learning with local and global communities.

By signing the Accord, we’ve committed to reporting annually on how it contributes to the SDGs. The Social Responsibility and Environmental Sustainability teams are currently working on a public report, and web presence showcasing the University’s efforts towards sustainability. They are gathering information on how our staff are playing an active role in achieving sustainable development.
TEACHING AND RESEARCH

THE GLOBAL GRADUATE AWARD

Our Global Graduate Award in Sustainability provides students with an understanding of a wide range of challenges affecting the sustainability of our planet and some of the promising solutions.

Since its inception in 2014, this popular module has seen dramatic increases in uptake: 123 students took the over-subscribed course in 2020/21. It is an essential component of the University’s broader aim to develop students’ awareness of sustainability and the UN’s 17 Sustainable Development Goals through curricular and co-curricular provision. Our graduates will go on to disseminate lifelong sustainable solutions into all sectors across the world.

GLOBAL PARTNERSHIP NETWORK

The UN’s Sustainable Development Goals are the blueprint for achieving a better future for all, and can only be realised through strong global partnerships and cooperation.

With more than 390 active international partnerships, the University of Surrey has a far-reaching and multilateral global outlook, encompassing research, teaching, professional training, and student and staff exchange activities.

We’re a founding member of the University Global Partnership Network (UGPN), a foundation for international collaboration that enables academics and students from the world’s top universities to develop sustainable, world-class research, education and knowledge transfer through collaboration.

KEY STATS

17
Sustainable Development Goals through curricular and co-curricular provision

390
Active international partnerships in Global Partnership Network

61st
University of Surrey ranking in the 2021 Times Higher Education University Impact Rankings

surrey.ac.uk/sustainabledevelopmentgoals
FOR A BETTER FUTURE
OUR WIDER IMPACT

£344.8M INCOME FROM CAPITAL INVESTMENT AND FUNDRAISING

- £3m investment in student accommodation
- 100+ community-focused projects and initiatives
- £1,743,500 in bursaries for students from lower income households
- A strong total attendance of 8,902 people at our public events, both virtual and live
- 3,131 employees at the University
- £43.4m income from research grants and contracts
- During 20/21 students recorded 30,100 hours of volunteering through 77 different charity partner opportunities
- Over 210 students became self-isolation buddies and were vital in front-line support for those self-isolating
- We now have over 4,341 students registered with our Surreyvolunteering.com platform
- 11,666 students participated in Widening, Participation and Outreach activities
- 1,739 students on formal placements, including veterinary and health science, with impact from pandemic on global placements
- £7.9m funded by Innovate UK for our work with MyGlobalHome developing low carbon smart homes
- 20% reduction in carbon emissions compared with 2018-19 (pre-pandemic)
- 34% reduction in water use
- £1.7m awarded under the new Turing Scheme to fund international work placements for Surrey students