



**SUSTAINABLE
DEVELOPMENT
GOALS**

PREFACE

The United Nations' 17 Sustainable Development Goals (UN SDGs) are a call to action to the world to work towards a shared vision of 'peace and prosperity for people and planet'. There are many pressing challenges and opportunities facing humanity and the natural world which must be tackled if we are to reach a fair, inclusive and sustainable world.

Universities have a unique and important role in researching, innovating, sharing knowledge and leading on the transformation that we must see to reach the aims of the SDGs by their target of 2030.

The University of Warwick is a world leading research institution and understands its role in tackling the SDGs spanning research impact, education, responsible operations and public engagement. In 2019, the University declared a Climate Emergency; integrating and providing a critical contribution to SDG's forms part of our ambitious plans and goals to reach net zero carbon and build a strong society.

This first annual report was released on 25th September 2020, to celebrate the anniversary of the launching of both the UN Sustainable Development Goals and Warwick's own Institute for Global Sustainable Development.

We introduce a number of case studies on some of our initiatives that are contributing towards the UN SDGs. They are inspiring examples of how the University of Warwick champions education, research and best practice for sustainable development. The University offers a range of degrees and individual initiatives that cover vital issues raised by the SDGs. Conducting cutting-edge and critical research on the SDGs, implementation and effects; Warwick colleagues contribute to policy agendas though their work with development agencies and other organisations.

In line with Goal 17 (Partnerships for the Goals) we hope that this report will inspire our partners in all sectors and all that come into contact with the University to tackle these goals together.

Being a signatory of the SDG Accord shows our commitment to transparent reporting and goal setting towards constant improvement. Through these reports we expect to promote the SDG agenda and to be held accountable for continual improvement.

We understand that this is a journey; we invite you to join us on the path to a better world and a better future for all.

Christine Ennew

Provost,
University Executive Office



Christine Ennew
Provost,
University of Warwick



INTRODUCTION

At the University of Warwick, we prioritise a thoughtful, critical and substantial engagement with the United Nations Sustainable Development Goals (SDGs). Our aim is that by 2030, Warwick will be one of the world's exceptional universities, helping to transform our region, country and world for the collective good. Our strategy thus combines a commitment to cutting edge, internationally relevant work, with an ethical commitment to positive impact in the world. Through building inclusive communities of research, teaching, learning and practice we believe that we can help to shape and further the sustainable development agenda. This is a contribution but also a commitment to playing our role as a Higher Education Institution.

Universities are central for the SDG agenda. Their research and teaching can trigger discussion, engage different generations in dialogue, and produce critical analysis vital for SDG monitoring, evaluation and impact. As part of a constellation of actors our role lies particularly in promoting and conducting critical thinking. We observe that the SDG agenda can be co-opted, by both private and public institutions, as a tick-box exercise. Universities are spaces for the critical thinking which can directly contribute to achieving the SDGs but also for ensuring that the transformative agenda which underpins them is realised. The SDGs cannot be approached as a list of 17 goals, or boxes in a report such as this. They are interconnected, and require a vision which can see their synergies, tensions, contradictions, and possibilities as a broad global agenda for change. This agenda is about a change in mind set, about how we think about the complexities between research, learning and teaching, between the economic, social, cultural, historical and political. Incorporating this into our work will allow us to prepare our students as global citizens contributing to a sustainable future and to ensure that we have both local and global impact.

The report that we present here is a first milestone in this process, promoting a further engagement from the academic community and inviting a broad and inclusive range of stakeholders to start a conversation. As is seen in the report, we at the University of Warwick are already approaching the SDGs in ways which reflect our research culture and ethics. Our research strategy outlines 6 priorities: disciplinary and interdisciplinary excellence; transformative interdisciplinarity; excellence with impact; global reach and significance; partnership; innovation. We have established

interdisciplinary research centres and programmes seen prominently in the Global Research Priorities, Global Sustainable Development, the Institute for Global Sustainable Development, and the Warwick Interdisciplinary Research Centre for International Development. We have a substantial programme of Global North-Global South research partnerships, with underpinning values of equity and inclusivity. Our institutional structure and priorities thus reflect our commitment to approaching the SDGs in innovative, interdisciplinary, and impactful ways. We will strive for further enhancing these interconnections between our areas of excellence to promote a transformative SDG agenda which challenges our current modus operandi.

We hope that this report will promote further engagement from staff and students at the University of Warwick and elsewhere, certain that a more inclusive and engaging dialogue is key to shaping and succeeding in the SDG agenda. In putting this report together, we are more aware than ever of the need to work across the SDGs and not to see them as self-contained, separate goals. Our commitment is to continue improving our work, listening to stakeholders and collaborators, and to monitoring our own contributions to the SDGs. At the University of Warwick, we will not only implement the SDGs at a local level, on our campus and in collaboration with the local communities, but we will also engage critically with the SDGs and push at the boundaries of SDG thinking to translate them in their broadest and most critical sense. In concrete terms we will focus on improving the methodology of this report, bringing together all of the communities on campus to work towards these common aims, and we will produce an annual assessment of where we have succeeded and where we could do better. In this way we promise to play our role in shaping the way the Higher Education Sector can, and does, contribute to a more sustainable, just and secure world that "leaves no-one behind".

The report has four case study sections per SDG:

- Teaching and students – education, societies and student-led initiatives;
- Research – research on campus and in collaboration with others;
- Operations – good practices and projects; and
- Engagement – community projects off campus.

University SDG Advisory Group



End poverty in all its forms everywhere

TEACHING AND STUDENTS

Warwick Scholars

Warwick Scholars is a programme available to students who live locally and have experienced barriers to university, such as attending low performing schools, living in neighbourhoods in which a low proportion of students enter Higher Education and receiving free school meals. Scholars benefit from assistance and mentoring through post-16 education, a contextual offer, reduction in tuition fees, a bursary and continual mentoring throughout studies in Higher Education.



Warwick Foyer and Care Leaver's Bursary

The Warwick Foyer and Care Leavers' Bursary is available to Foyer residents, Care Leavers and students who have been in continuous full-time education and were in receipt of Income Support and Housing Benefit under the age of 19.

Icycle

Icycle received funding from the Student Enterprise Fund. It offers eyewear made of 100% recycled plastic, glasses that are all high-quality, aesthetic and as sustainable as possible. Every gram of plastic used for Icycle's glasses is sourced responsibly from waste-collectors in Pune, a city in India. Icycle monitors that every waste-collector receives adequate work clothing, pay far above the local poverty line and a formal contract by local partner institutions. This ensures both social and economic security of its workers. Icycle employs the waste-collectors to assemble the frames of the glasses and gives out one pair of its glasses with prescription lenses to a waste-collector with bad eyesight. This not only up-skills waste-collectors but also connects them to the final product.

RESEARCH

New analysis highlights impact of poverty and exploitation on children's lives

Infancy and adolescence represent the periods of greatest vulnerability to serious or fatal child maltreatment. Researchers at Warwick Medical School and University of East Anglia investigated the damaging impact of poverty on children and their families and the growing problem of exploitation. An analysis of serious case reviews found that just 15% of the children who died or were seriously harmed were on a child protection plan, suggesting that children with a child protection plan in place are generally well protected from the most severe harm.

Researchers also found there is a risk of harm to a child when different parental factors, such as domestic abuse, and environmental risk factors, such as poverty, are present. The effect is cumulative when these factors are experienced in combination or over periods of time. The difficulty in tackling these issues stems from the complexity and interdependence of these issues, so addressing a single issue does not deal with the underlying causes or other issues present.

Addressing the challenges of healthcare in slums (GCRF)

The slums of low and middle income countries (LMICs) present numerous health challenges for their residents. Improving health service delivery in the slums is crucial in order to reduce death and disease. It's also important to do this at the smallest possible cost to both the people receiving the healthcare services and wider society. The NIHR Global Health Research Unit on Improving Health in Slums is delivering research into health services in slums in countries such as Pakistan, as well as in Africa.



The research team is determining the costs of health services, as well as improving knowledge of disease. Researchers are working with decision makers and communities to develop new options for health service delivery in slums, whilst ensuring they are viable and cost effective. The Unit is currently running a project entitled Geo-spatial Mapping of Health Services in Slums. The project, which runs from June 2017 to March 2021, involves the use of digital technologies to generate accurate geographic data about slums and the healthcare services within them.



OPERATIONS

RAWKUS

RAWKUS holds a Disco Soup event each term where surplus vegetables from local wholesalers are cooked up into a soup and given away on a 'Pay As You Feel' basis. The donations go to local charities such as Emmaus who are a charity working to end homelessness.



PUBLIC ENGAGEMENT

Christmas Toy Collection

The University participates in a local initiative, which distributes toys, clothing and books to children in need across the city of Coventry. The vulnerable children range in age from 0 to 18 and may be living at home with parents who are addicted to drugs or alcohol, witnessing domestic violence or sadly, in 2019, living poverty. Those children and young people may not have the best of home lives, there may not be any extra money around at Christmas for presents, so Christmas for them is just a time of missing out.



The collection has run for over 15 years and has grown from two or three departments taking part to the more than 20 departments who took part in 2019; the most recent collection filled two large school minibuses! The donations are given to Coventry City Council and the Participation Team distribute them to those in need to brighten up their Christmas.



IntoUniversity

The University of Warwick works in partnership with IntoUniversity Coventry to provide academic support, primary and secondary school workshops, university applications support and mentoring for young people living in disadvantaged areas of the city. Students from the university act as mentors to support the young people to achieve their academic, social and future goals. Warwick facilitates IntoUniversity events such as FOCUS week, a five-day programme designed to introduce Year 6 pupils to university-style learning and give them a taste of what higher education is all about.



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

TEACHING AND STUDENTS

IFSTAL



There is a lack of workforce with skills in food systems thinking. Across the world, one billion people are hungry, two billion lack sufficient nutrients and over two billion are overweight or obese. IFSTAL is an interactive training programme designed to improve post-graduate level knowledge and understanding of the food system.

The aim of IFSTAL is to provide students with knowledge and skills they can transfer to the workplace. The programme brings together the University of Warwick with the University of Oxford and the Leverhulme Centre for Integrative Research on Agriculture and Health. It uses a range of teaching methods, including a virtual learning environment. A research placement and internship programme are also being developed.

Teaching Courses

Postgraduate courses on Food Security and Sustainable Crop Production are taught in the university's School of Life Sciences, ranked 2nd in the UK for Agriculture. The Food Security MSc course analyses the critical factors influencing global food security including the contributions of climate change, biodiversity, land use, labour, diet, and urbanisation.

Sustainable Crop Production: Agronomy for the 21st Century MSc provides students with knowledge and practical skills in crop management and crop improvement. Students learn the principles of crop production, including the latest advances in plant pathology, integrated pest management and soil health.



RESEARCH

UK Vegetable Gene Bank

The Wellesbourne Campus hosts the UK's Vegetable Gene Bank. It was built as a result of an OXFAM fund-raising campaign and it is currently funded by Defra.



The Genebank manages a collection of approximately 14,000 samples of vegetable crops such as cauliflower, carrot, kale, and onions which are essential for a balanced and healthy diet. Our conservation work means that seed from wild species related to crops, farmer-developed landraces and other varieties remain available for use. This enables plant breeders and researchers to access the widest range of diversity possible.

Vegetable Genetic Improvement Network

The Vegetable Genetic Improvement Network was initiated with funding from Defra. It involves collaboration between the University, Harper Adams University and industrial partners. The Network brings together research focused on key vegetable crops and encourages collaborations between industry and researchers to address how genetic improvement of crop varieties can contribute to a sustainable increase in food production to meet the twin challenges of food security and climate change.

AMBER

Biopesticides are safe crop protection products based on micro-organisms, plant extracts and other natural compounds. In addition to their ability to control pests and diseases, biopesticides produce little or no toxic residue, and partly for this reason they are usually considered to be minimal risk products for human health.

AMBER (Application and Management of Biopesticides for Efficacy and Reliability) is a research project involving members of Warwick Crop Centre to identify practical ways for growers to improve the performance of these products in their crop protection programmes. AMBER is funded by the UK Agriculture and Horticulture Development Board and sees members of the university collaborate with RSK ADAS Ltd, Silsoe Spray Applications Unit Wrest Park and Rob Jacobson Consultancy Ltd.

FlyIPM

Several important vegetable crops grown outdoors in temperate climates can be damaged by the root-feeding

larvae of flies. Insecticidal control options are limited and overall, there is a European ambition to reduce pesticide use, articulated in the new EU Biodiversity and Farm to Fork Strategies.

FlyIPM is a European project coordinated by Warwick Crop Centre, funded in the UK by Defra. It focuses on the tools and approaches that might be part of an Integrated Pest Management strategy for these pests. The project has focused particularly on biocontrol, physical barriers to exclude pests, and combinations of attractants and repellents to manage them.

Crop yield in Ethiopia (GCRF)

Enhancing agricultural productivity to contribute to sustainable food security is Ethiopia's major focus. Ethiopia is the Africa's second most populous country and enset, or false banana, provides year-round food to 20% of the population. The crop yields a large starchy corn, is highly drought tolerant and can survive for more than a year without water. However, enset is virtually impossible to breed.



Researchers from the University led a project designed to understand which parts of the enset genome play a role in making a better crop. These parts can then be selected by molecular techniques. These studies will contribute to increasing yields, and improving tolerance to disease and drought, which is crucial in order to make the country more self-sufficient and help alleviate hunger.

Child nutrition in Mauritius (GCRF)

The Republic of Mauritius in the Indian Ocean is a country with little or no quality data on the prevalence of malnutrition in children under five. The country has a paper-based child nutrition surveillance system which collects weight data amongst children up to the age of five from growth monitoring clinics. This system faces challenges of very poor data quality and long delays between data collection, analysis, and presentation. The surveillance system's limitations pose a threat to the country's ability to plan for and respond to current and future nutrition problems.



Improving surveillance of childhood nutrition in the Mauritius was the focus of a project by researchers. The project involved developing a mobile-based child nutrition surveillance system, data is collected on a mobile app and dashboard to enable near real-time monitoring.

OPERATIONS

RAWKUS

RAWKUS is a project that aims to save surplus food and equipment from student kitchens across campus at the end of term/year. Over 35 Tonnes of food and other items have been saved from ending up in the bin and have been given to local charities and food banks.



PUBLIC ENGAGEMENT

Bake it Up!

Bake It Up! aims to improve the self-esteem of young people by allowing them to get creative in the kitchen and achieving something they can be proud of. Student volunteers are responsible for planning and running the two after school clubs, which enable participants to develop new skills, learn to work as a team and gain knowledge about various ingredients and foods. The clubs take place at Sydenham Primary School in Leamington Spa for 7-11 year olds and at Westwood Academy in Coventry for 11-13 year olds.



TEACHING AND STUDENTS



Warwick Medical School Courses

Warwick Medical School (WMS) offers undergraduate courses in Integrated Science (MSci) and Health and Medical Sciences (BSc). It also offers a Graduate Entry Medicine (MB ChB) course, the largest available in the UK, open to students from any degree background. The course utilises facilities from four hospitals and around 80 GP practices in the Coventry and Warwickshire area. On completion of the course, students can register with the General Medical Council and apply to undertake their two Foundation Years. WMS also offers opportunities for full and part-time taught master's and research degrees as well as professional development across the healthcare sector. Alongside a range of educational opportunities, WMS has a reputation for research excellence, investigating solutions to significant global health challenges.

Short Courses

The Centre for Lifelong Learning offers short courses in Mindfulness. These courses aim to teach students from within and outside Warwick how to practice meditation to improve their mental and physical wellbeing.

An Introduction to Counselling short course is also available to prepare students to take the BA (Hons) Person-centred Counselling and the Psychotherapeutic Relationship. The BA course is BACP accredited and can help students find a career in counselling in areas such as the NHS and education sector.

RESEARCH

PathLAKE Centre

The PathLAKE Centre (Pathology image data Lake for Analytics, Knowledge and Education) aims to assist pathologists in diagnosing cancer more efficiently and selecting the optimal treatment for cancer patients through the use of cutting-edge technologies. PathLAKE is a collaboration between multiple universities, hospitals and software companies. University researchers from the Department of Computer Science will work together with University Hospitals Coventry and Warwickshire NHS Trust and Royal Philips to create a national centre of excellence in AI in pathology, linked to five digitised NHS pathology labs.

The £15.7m project, with £10m funding awarded by UK Research and Innovation (UKRI), will develop a unique data resource of cancer images and artificial intelligence (AI) techniques to help the validation and implementation of AI in cellular pathology.

Reducing oral cancer in India (GCRF)

Cancer is the second leading cause of death globally, surpassed only by cardiovascular disease, with low and middle income countries disproportionately affected. In India, cancer rates are increasing, oral cancer being the third most common type.

Through the development of a UK-India partnership on oral cancer, a team from Warwick are developing a screening strategy to help detect disease at an earlier stage in the regions of Assam. The strategy involves training community health workers to screen effectively and utilise mobile digital technology.

Preventing cardiovascular disease by reducing salt intake (GCRF)



The impact of a high salt diet can ultimately be fatal. Cardiovascular disease is the primary cause of death in sub-Saharan Africa in adults over 30. In 2015, more than 23% of Nigerian adults suffered with hypertension - and the figure is rising. However, trials into the effectiveness of salt reduction interventions are usually lengthy and expensive.

A research project, was undertaken to provide evidence that a salt reduction intervention would be both beneficial to Nigeria's population, and economically cost-effective. The team worked closely with policy makers from the Nigerian Ministry of Health. Evidence generated highlighted the extent of the problem and allowed them to develop solutions for Nigeria's urban environments.

OPERATIONS

Workplace Wellbeing Charter Mark and Thrive at Work Commitment

Warwick held the Workplace Wellbeing Charter Mark from 2017-19 and is currently working towards a submission for the Thrive at Work Commitment.



Various events are held throughout the year, including a Wellbeing Week to promote the support which is available on wellbeing, including healthy lifestyles, physical health and activity, mental health and financial wellbeing. The University also takes part in the annual National Day for Staff Networks and in May 2019 marked the day with a Kindness Rocks decorating session, which aims to cultivate connections within communities and lift others up through simple acts of kindness.

Unicycles

Warwick Unicycles is a bike hire scheme available to all staff and students. There are over 100 bikes available at 18 stations on campus and the University is working with partners to expand the scheme further.



PUBLIC ENGAGEMENT

Buddy Club

Buddy Club makes weekly visits to Willowbrook; a residential home for older people. Student volunteers socialise with the residents by providing friendly conversation and companionship, and help to deliver activities such as quizzes, games, cake decorating and arts and crafts. Societies and clubs also have the opportunity to perform and entertain the residents.



Crafting Happiness

Crafting Happiness supports UHCW Charity in offering creative art packs for the Hospital's Healing Arts Programme, distributed to wards daily in an effort to cheer up patients. The arts have a key role in improving the wellbeing and health of patients and can help to speed up recovery. Volunteers design and produce craft-making kits and custom made cards for seriously ill children.



The university's Sports and Wellness Hub opened in 2019, a building designed with environmental sustainability in mind and containing a 230-station gym, 12 lane swimming pool, sports arena, squash courts and a climbing centre.

Warwick Sport

Warwick Sport offers memberships to the public with discounts for staff, students, alumni, corporate partners and public services. Free activities are also available to introduce people to new sports including rock climbing, running groups and pop-up events.





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

TEACHING & STUDENTS

2+2 Degree

The Centre for Lifelong Learning offers 2+2 Degree Pathways in Social Studies and Health and Social Policy, aimed at older students who have had a break from education or have never attended university. As such, there are no formal qualifications required, applications are judged on life experiences and motivations to study. The courses are four years in length, with the first two years taught at either North Warwickshire and South Leicestershire College or Coventry College to introduce students back into education and prepare them for the final two years at Warwick.



Part Time Degree

Part-Time Degrees are also available through the Centre for Lifelong Learning. They are ideal for students looking to study at their own pace, and can be completed over four to ten years, taking classes in the day and/or evening. Multiple subjects are available through this pathway including Classics, English and Cultural Studies, French Studies, Health and Social Policy, History and Social Studies. Entry requirements are flexible and non-traditional qualifications, work and life experience are all considered.

PGA Interdisciplinary Pedagogy

Staff and post-graduate researchers at Warwick have the opportunity to work towards a Postgraduate Award in Interdisciplinary Pedagogy, convened and assessed by members of the Institute for Advanced Teaching and Learning (IATL). Staff reflect and evaluate their own pedagogic practice and benefit from the expertise of IATL staff. The course aims to introduce and critically evaluate variants of interdisciplinarity in teaching, promote a conceptual approach and encourage good practice for facilitators of teaching and learning.

Centre for Teacher Education

The Centre for Teacher Education at Warwick offers PGCE courses at primary (2-7 and 5-11 year olds) and secondary level, a Professional Education MA, International PGCE, and an education module for undergraduate students. The centre has partnerships with over 500 schools in the West Midlands area and the PGCE courses have been judged by Ofsted to be 'Outstanding'.

Education Studies BA

The Education Studies BA is also available, taught within the Centre for Education Studies. The course addresses the theory and practice of teaching and learning, marketisation of education, political perspectives on educational policy, creativity and culture, childhood and society, and psychological and philosophical perspectives on how children and adults learn.

Humanitarian Engineering MSc

The Humanitarian Engineering MSc is delivered by a unique teaching approach developed by the Institute for Advanced Teaching and Learning. The teaching is interdisciplinary by nature to help students to approach complex global issues, the student is active in the process and often will define assessment and grading requirements, and it is taught using Open Space Learning in which the students is on the same level as the expert.

IATL/IAS Early Career Teaching Fellowship

The Institute for Advanced Teaching and Learning (IATL) and Institute for Advanced Study (IAS) offer an Early Career Teaching Fellowship to support a Warwick doctoral candidate in the transition phase between doctoral and postdoctoral careers. The Fellow works with both departments to develop interdisciplinary pedagogy by designing non-modular pedagogic activities, and advances their research career by writing research publications, conference papers, job applications, and postdoctoral fellowship/grant proposals. Taking guidance from both Institutes, the Fellow will develop a teachable project based on their own research.

Warwick International Foundation Programme

The Warwick International Foundation Programme is available for international students to help them transition into higher education in the UK. Students can gain a foundation in a range of disciplines and benefit from intensive English Language tuition. The programme takes students from over 40 countries per year and over 75% of our students progress to leading UK universities each year. Students are guaranteed a conditional offer from Warwick, advice and guidance is also available for students hoping to attend other universities.

RESEARCH

CEDAR

The Centre for Educational Development, Appraisal and Research is an internationally acknowledged research centre undertaking research on a range of educational and psychological issues. They focus on the interface between policy and practice, and include research into new government initiatives across the age range of pre-school to higher education and continuing professional practice. An example of their current work is a research team from the University are leading a large, multidisciplinary consortium to evaluate a 10-year study designed to improve the life chances of children 0-3: Fulfilling Lives: A Better Start.

OPERATIONS

Certificate for sustainability

A joint project between Global Sustainable Development and the Estates Office; the Certificate for Sustainability offers students the opportunity to act as a sustainability consultant. Students are provided with practical and theoretical knowledge of how to engage and communicate with various groups and perform a number of audits. The students then spend a number of weeks with a designated department to audit and make recommendations for sustainability improvements.

PUBLIC ENGAGEMENT

Gateway to HE

Gateway to Higher Education is a course designed to equip local adult learners with the confidence and skills to study at degree level. The aim of the programme is to remove barriers to entry for local adult learners. The programme is free which allows learners to assess if university is for them without any financial consequences. The teaching is informal, relaxed, and friendly; many adult learners have negative experiences with formal education and this programme is designed to build trust.

Examples of students include; those with young children, those who cannot be promoted at work without a degree, and those nearing retirement who wish to keep the mind active. Successful completion of the course guarantees a place on the Centre for Lifelong Learning's Social Studies degree programme. Typically, each year approximately fifty local learners are engaged in the programme, out of these around half will transition onto the Social Studies degree each year.

Warwick in Africa

Warwick in Africa started in 2006 as a small voluntary project supporting the teaching English and Maths in South Africa and currently runs a multi-layered programme helping learners and their teachers across South Africa, Tanzania and Ghana. We want to give young people in Africa and the UK a better platform from which to build their futures by creating experiences and making sustainable changes that enhance their educational experience. Student volunteers assist in the classroom to deliver energetic, inspirational lessons to some of the poorest schools in Africa. Staff and alumni volunteer to work with our growing network of Lead Teachers through our Teacher Support Programme to motivate, connect and re-invigorate teachers in our partner schools and inspire lasting change in the classroom. We build connections between people that allow everyone involved to discover something new and unlock their true potential.

In 2019, 52 Warwick in Africa student volunteers worked with 12,888 learners across 23 schools. Maths test results increased by 20% and English results by 12%. 12 mentors worked with 29 Lead Teachers to train 722 teachers, 99% of whom felt their teaching skills had improved.





Achieve gender equality and empower all women and girls



TEACHING AND STUDENTS

Women in Engineering Scholars

The proportion of female engineering professionals in the UK is amongst the lowest in Europe; fewer than 30% of girls aged 11-16 are aware of a female in their network in a STEMM-related role and only 7% of parents anticipate that a career in engineering would appeal to their daughter.

For the past four years the Women in Engineering Scholars Programme has selected applicants with strong potential as ambassadors for women in engineering, providing financial assistance for each year of the scholar's course, extra support and mentoring, opportunities for career development and other special events. The programme aims to address the shortage of female role models in engineering by supporting the most talented engineering students to develop their careers. A number of our scholars have gone on to secure high-profile internships and subsequent scholarships.

Gender Equality Modules

The University offers students a variety of modules that consider gender equality including:

- Feminism, Politics and Social Change in Modern Britain (History) - provides an overview of the politics of feminism and its relationship to changing gender roles in modern Britain.
- Gender, Crime and Justice (Sociology) - provides a comprehensive understanding of the relationship between gender, crime and its social context.
- Performing Gender and Sexuality (Theatre and Performance Studies) - analyses ways in which performances engages with, reveals, challenges, deconstructs and resists dominant norms of gender and sexuality.

Her Innovation Collective

The Her Innovation Collection is delivered by Warwick Enterprise and is an exciting opportunity for students to engage with the leading women in innovation from sectors such as tech, marketing, finance, social enterprise and start ups.

Girl Boss

Girl Boss was founded in 2019 with the mission to promote wellbeing and better mental health on campus, while also supporting the career aspirations of ambitious women at Warwick. They champion gender equality through careers events: hosting talks, workshops and networking opportunities with leading female speakers from various industries.

RESEARCH

Improving Health in Ugandan Slums (GCRF)

Slum growth occurs due to rapid urbanisation in Uganda. More than half of the residents of Kampala, the capital city of Uganda, currently live in slums. These living conditions are breeding grounds for ill health, injuries, and sexual abuse. Young women inhabiting slums often face heightened risk of HIV, sexual assault, and unsafe abortions, compounded by a lack of access to social and health services.

A project involving researchers from the University, Warwick Medical School and Center for Health, Human Rights and Development (CEHURD) in Uganda was undertaken to help improve sexual and reproductive services, rights, and improved health for women living in Uganda's slums. Centred on two slums, the research focused on ways of empowering communities and individuals through a discussion of their rights and entitlements, and how sexual violence can be best addressed.



A Fair Chance for Education

A Fair Chance for Education: Gendered Pathways to Educational Success in Haryana is a five-year action research project that seeks to determine the gendered factors that contribute to educational success for young people in Haryana, India.

Haryana experiences significant gender-based practices that affect the ability of young people to access and remain within the education system, and to progress into higher education. The project focuses on gendered social relations and gender differences in choices, obstacles, and opportunities for young people as they progress through the education system, and ultimately intends to devise a programme of actions that can bring about positive social change. The project involves members of Warwick's Centre for Education Studies and Warwick Law School working with Indian partners from Ambedkar University, NIEPA and TISS Mumbai. It is funded by The Fair Chance Foundation and Warwick Collaborative Postgraduate Research Scholarships.

PLOTINA

There is strong horizontal gender inequality in most areas of STEM (science, technology, engineering, mathematics) with women being under-represented as both students and professionals. Across Europe there is also significant vertical gender inequality in all academic disciplines and especially in high-level university management. Despite efforts, particularly over the last decade at European level, the gender inequality is still very apparent.

The PLOTINA project (Promoting Gender Balance and Inclusion in Research, Innovation and Training) was led by the University of Bologna and involved the collaboration of universities across Europe including the University of Warwick. It aimed to stimulate a gender-aware culture change and produced a set of modular and adaptable resources to assist research performing organisations in the setting up of their gender equality plans.



PUBLIC ENGAGEMENT

Prize for Women in Translation

A report by Nielsen Book shows that translated literary fiction makes up only 3.5% of the literary fiction titles published in the UK, but accounts for 7% of the volume of sales. Women's voices in translation are even more underrepresented. The Independent Foreign Fiction Prize, for example, was awarded 21 times, but was won by a woman only twice. The Warwick Prize for Women in Translation launched in 2017 with the aim of addressing the gender imbalance in translated literature and increasing the accessibility of international women's voices.

The prize is awarded annually to the best eligible work of fiction, poetry, literary non-fiction, work of fiction for children or young adults, graphic novel, or play text, written by a woman, translated into English by a translator (or translators) of any gender, and published by a UK or Irish publisher. The £1,000 prize is divided between the writer and her translator(s). In 2020 the prize will be financially supported by the British Comparative Literature Association and the British Centre for Literary Translation.



OPERATIONS

Awards and Accreditations

The University holds an institutional Athena SWAN Silver Award. Within the university there are 5 departmental Silver Awards, 10 departmental Bronze Awards and several other departments working towards a Bronze Award.

Warwick is also ranked 123/500 in the 2020 Stonewall UK Workplace Equality Index.

Pay Gap Report

The University's strategy for Social Inclusion will ensure that, irrespective of background, disability, faith, gender, race and sexual orientation, all staff and students have access to equal opportunities to thrive and progress at Warwick.

The gender pay gap is the difference in hourly pay between the total population of men in the workforce and the total population of women in the workforce. In the University's 2019 annual report, information is provided on the gender pay gap at the University for the snapshot date of 31 March 2019, in line with the requirements of the Equality Act 2010 (Gender Pay Gap Information) Regulations 2017. The gender pay figures improved slightly, however sustained improvement requires fundamental changes to the over-representation of the women in lower paid roles and the under-representation in higher paid roles.

Ensure availability and sustainable management of water and sanitation for all

TEACHING AND STUDENTS

Global Water and Sanitation Technologies

The Global Water and Sanitation Technologies module, available to Engineering students, covers the applications of hydraulic engineering to agriculture, process engineering, global water shortages and possible responses.



Water and Environmental Management

The Water and Environmental Management module is available to students studying Humanitarian Engineering courses. The course contains content on the unique chemistry of water, its ecosystems, sanitation, pollution and contamination, management and cultural impact.

Living with Water

Students on the Global Sustainable Development course can take the Living with Water module, which covers issues such as sustainable management of water resources and its impact on social, environmental and economic sustainability. Students also examine the history, geo-politics, culture and governance frameworks that relate to water and sustainable development.



RESEARCH

India/London water quality

Currently 70% of India's water is contaminated. Whilst different in severity and scale the UK also suffers from poor water management and a lack of community responsibility in water stewardship, only 14% of rivers in England are considered to be at Good Ecological Status within the Water Framework Directive. Researchers in the School of Engineering hope to improve local water quality monitoring in India and London, by partnering with NGOs Thames21 and Earth5R to identify and co-develop citizen science methodologies to address both London and Mumbai's water quality challenges.

Funded by a UKRI Citizen Science Exploration Grant, the team will explore existing research into water quality and evaluate how citizen science methods can be complimentary applied to the context of both the UK and India. The work will build on the previous PATHWAYS project, and attempt to translate the scientific findings into useable solutions for communities at risk of water pollution.

Improving water, sanitation and hygiene in Bangladesh (GCRF)

Infections of the gut such as typhoid, cholera, and shigella are leading causes of childhood death in the developing world, largely as a result of poor quality water, sanitation and hygiene. These diseases cause diarrhoea, which can lead to significant fluid loss, dehydration and death.

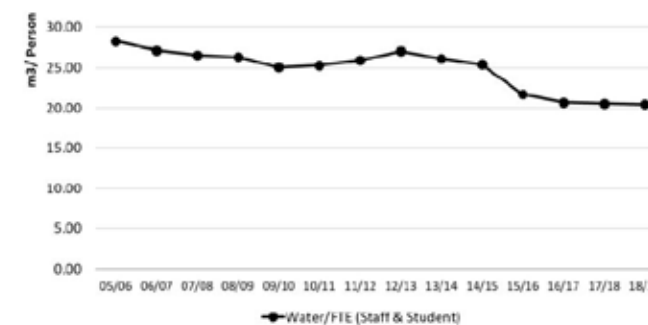
Researchers have been examining the accuracy of diarrhoea self-reporting with the International Centre for Diarrhoea Disease Research in Bangladesh. The research provided key evidence to support the monitoring and evaluation of water, sanitation and hygiene interventions, which is crucial in preventing diarrhoeal disease. Bangladesh's Ministry of Health, as well as international water, sanitation and hygiene organisations, will benefit from the research through better ability to measure prevalence of infection, and the effectiveness of water, sanitation and hygiene systems. It has led to further collaboration with local agencies including UNICEF and MSF, where the researchers are developing projects to evaluate water and sanitation using cheap and rapid stool testing methods.



OPERATIONS

Water consumption data

The University closely monitors water consumption to identify leaks and opportunities for improvement. Water consumption per full time equivalent (staff and students) has reduced year on year for the past seven years. Some of the projects to reduce consumption include behaviour campaigns, introducing shower and tap flow technology, and installing dual flush toilets.



Drinking water for all

The University has worked with City to Sea CIC to promote the Refill app across the campus, adding our own water refill sites to the app. Stickers have also been added to numerous sites on campus to inform everyone where they can access clean drinking water.



PUBLIC ENGAGEMENT

Cut the Flow

The Cut the Flow competition educates students in on campus accommodation about water and energy saving, rewarding the blocks with the greatest reduction in consumption. In its first year, enough money was saved to install water meters in Westwood accommodation, which previously did not have them. The project has resulted in an average reduction in daily water consumption from 193 litres per person to 150 litres per person.

FREE TAP WATER REFILLS ARE HERE

- Download the free Refill app
- Stay hydrated
- Save money
- Prevent plastic pollution at the source

refill.org.uk #RefillRevolution



Ensure access to affordable, reliable, sustainable and modern energy

TEACHING AND STUDENTS

The Energy Trilemma

Within the Global Sustainable Development course, students can take the Energy Trilemma, a module based on SDG 7. The teaching focuses on the key dimensions of the problem; sustainability, energy security and energy equity, and the challenges it brings to economies of different sizes and at different stages of development.



Sustainable Energy Technologies MSc

The main challenges in the shift away from fossil-fuel based energy supply lie in the development of sustainable energy technologies, ranging from the engineering of new materials to the integration of these technologies into power distribution networks. Students taking the Sustainable Energy Technologies MSc gain in-depth and advanced knowledge of a diverse range of sustainable energy technologies; including wind, solar, fuel cells and bioenergy. The course benefits from links with academic institutions, industry and research at Warwick in chemical engineering, sustainable thermal energy technologies, and power electronics.

Cut the Flow

The Cut the Flow competition educates students in on campus accommodation about energy and water saving, rewarding the blocks with the greatest reduction in consumption. The project has resulted in an average reduction in electrical consumption of 8% since 2016/17, saving over £100k. An extension of the project has been trialled in Sherbourne accommodation, where electrical consumption is displayed and explained in each block every two weeks. A similar project has been launched in Tocil accommodation.

Blackout Society

The Blackout Society was set up to educate and raise awareness about overconsumption of energy and to celebrate Earth Hour.

One of the most obvious usages of electricity is lighting; so twice a year Blackout turn off the lights on the piazza, the Student's Union and other areas of the campus and host a performance event, bringing in other societies to perform on stage turning what could to some be perceived as a power outage into a celebration of what we can all do to reduce consumption.

RESEARCH

CLEAN

As the EU pushes ahead with its energy and climate agenda, it will need a broad range of cleaner energy sources including natural gas to retain its leading position in emission reductions in a carbon-constrained world. Europe has enough gas to meet around half of its own demand for another 25 years. The public concerns of geological disaster, underground pollution, contaminated water and damage to ecosystems are major obstacles to the shale gas revolution in Europe.

The EU funded CLEAN project involving members of the Ground Engineering group aims to relieve the energy security and carbon emission issues in Europe by introducing a new environmental-friendly technique for shale gas exploitation combined with carbon storage process. The direct impact from this new technique is estimated to save 30,000 tons of freshwater, prevent the release of 150 tons of underground polluting chemicals and embed a minimum of 15,000 tons of CO2 for a typical shale gas well.

LoT-NET

The LoT-NET project is investigating how waste heat can be recovered, used and incorporated in smart, thermal and electrical energy systems. Heating and cooling produces more than one third of the UK's CO2 emissions and represents about 50% of overall energy demand. The Department for Business, Energy & Industrial Strategy has concluded that heat networks could supply up to 20% of building heat demand by 2050.

LoT-NET aims to provide a cost-effective near-zero emissions solution for heating and cooling that realises the huge potential of waste heat and renewable energies by utilising a combination of a low-cost low-loss flexible heat distribution network together with novel input, output and storage technologies.



OPERATIONS

Cryfield Heat and Power

We have 3 Combined Heating and Power plants on campus which provide efficiently-generated electricity to 60% of our buildings. The excess heat generated by the plants is captured and used to generate hot water for campus via our District Heating System containing 19 km of pipes. This system saved the university £1.2m in 2018/19 and is also used by staff and students to help with research.



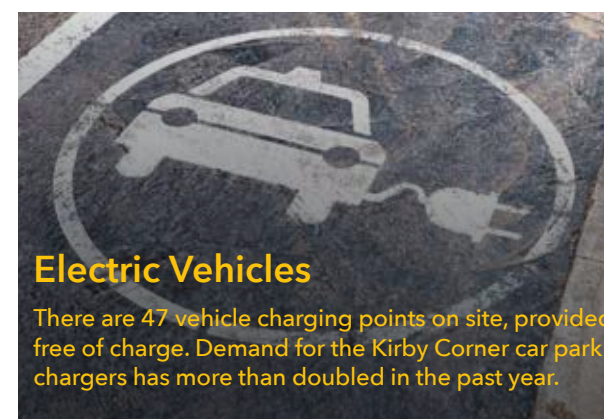
Renewables

The campus has around 2889 photovoltaic panels, covering an area of 7277 m2. The panels have a peak power of 728 kWp, with potential to generate 618,579 kWh of electricity per year - enough to supply 159 houses.

PUBLIC ENGAGEMENT

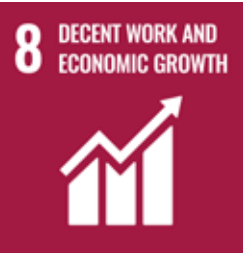
RESO

The £2.62 million RESO (Regional Energy System Operator) Project, led by Energy Capital of the West Midlands Combined Authority (WMCA), including Warwick Manufacturing Group, University of Birmingham, Coventry City Council and others, looks to explore the advantages of a new kind of energy system operating at city scale. The system will include local low carbon energy generation, storage and management and electric vehicles. It moves away from the traditional energy system approach of large power stations and one-way energy flows, if successful it will avoid the need for lots more copper in the ground, and expensive infrastructure upgrades as the energy flows will be managed at a local level. The approach is already being developed at campus scale at Warwick, the project seeks to understand whether it can be applied at a larger scale with multiple customers.



Electric Vehicles

There are 47 vehicle charging points on site, provided free of charge. Demand for the Kirby Corner car park chargers has more than doubled in the past year.



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

TEACHING AND STUDENTS



Degree Apprenticeships

Degree Apprenticeships are offered for 13 courses at Warwick. Students on these courses are full-time employees, learning skills on the job for around 80% of the time, with the other 20% spent at Warwick. Students do not have to pay tuition fees, earn a wage and 90% of apprentices stay in employment after completing their apprenticeship.

Debt, Money, and Global Sustainable Development

The Debt, Money, and Global Sustainable Development module aims to de-mystify the roles that money, debt, and finance play in processes of sustainable development.



The module emphasises the impacts of monetary and financial systems and relations of credit and indebtedness on the everyday lives of people in the global south and on possibilities for sustainable development. It seeks to help students develop nuanced and critical perspectives on the ways in which money and financial markets impact on poverty, poverty reduction, and development.

OPERATIONS

PULSE Survey

Warwick holds an annual Pulse Survey that allows all staff members to anonymously share their views on working at the university, and suggest improvements. The results are shared used to draw up university-wide and departmental action plans.

Previous Pulse Surveys have led to changes such as increased localised departmental feedback, interactive team meetings, increased wellbeing activities and greater access to networking and training.



UniAssist

UniAssist received funding from the Student Enterprise Fund. It aims to improve access to higher education by equipping young people with long term professional and interpersonal skills along with guidance on navigating the process of applications for university, degree-apprenticeship or alternative routes. Challenging the practices of traditional widening participation programmes, UniAssist has no academic entry requirements to ensure fair access to students from all backgrounds.

Transferable Skills for SEM

The University of Warwick offers free transferable skills courses for Science, Engineering and Medicine students. They aim to provide tangible and measurable benefits for career prospects, professional development, enhance key scientific research skills and develop social skills, friendships and networks. A Postgraduate Certificate in Transferable Skills in Science is also available for PhD students and post-doctoral researchers to help improve research effectiveness and maximize talents for the future. The Postgraduate Certificate is accredited by the Royal Society of Chemistry, the Royal Society of Biology and the Institute of Physics.



RESEARCH

Investor's use of human capital

Researchers from the Industrial Relations Research Unit at Warwick and the University of Kansas received funding from the Chartered Institute of Personnel and Development to examine investors' use of human capital information. This has to date resulted in the publication of two reports in 2017 and 2019. The work was in the context of the Taylor Review of Modern Working Practices, stewardship and improved corporate governance. Investors' attention to human capital and human resource management practices has not only the potential to incentivise investments in human capital and resulting productivity improvements but also to facilitate decent work through stewardship.

Workplace differentiation

Workforce differentiation (the application of different employment practices to different groups of employees within a firm's workforce) can be a useful tool to boost productivity and morale.

Researchers from the Industrial Relations Research Unit at the University of Warwick and the University of Bath are exploring the downsides of workforce differentiation, focusing on the provision of flexitime. Their analysis shows employers that are not entitled to flexitime in workplaces where others are entitled to it display lower commitment to the organisation, in part due to a perception of unfairness. This is an important finding given the implications of employee commitment for economic growth and productivity.

Warwick Institute for Employment Research

The Institute for Employment Research was established in 1981 and is a leading international social science research centre. Its research is interdisciplinary and made relevant to policy makers and practitioners. The Institute has expertise in a broad range of research fields including labour market assessment, apprenticeships, employment relations and employer behaviours, and labour market classification and measurement.



PUBLIC ENGAGEMENT



WMG Academy

WMG Academy Trust operates WMG Academy Coventry and WMG Academy Solihull, with the aim of encouraging young people to study science, technology, engineering and maths. Working with businesses and the University, they offer students invaluable opportunities which are difficult to find anywhere else. 100% of students attending WMG Academy go straight on to university, advanced



The Gateway

The Gateway is a social enterprise led by the Warwick Enactus Society aimed at empowering refugees and asylum seekers in Coventry through skills training workshops and career support. Workshops have been held at Coventry Library and Coventry Hill hotel to help beneficiaries with English and IT skills. The social enterprise partners with external organisations for events and joint initiatives; for example Coventry City Council, Together for Change, Refugee Action and City of Sanctuary.

Past events include an Open Mic for Refugees, a soccer tournament with asylum seekers and university students, and the "Embracing Diversity" online fundraising challenge.

TEACHING AND STUDENTS



Warwick Innovation and Entrepreneurship Programme

The Warwick Innovation and Entrepreneurship Programme is designed to foster the ability to think like an entrepreneur and develop innovative products and services, it equips students with the skills to drive innovation in organizations and teams, embrace risk and learn how to generate, pivot and execute ideas. It has been created by experienced enterprise educators and is supported by Student Innovation Fellows. The course is free and open to all students and covers topics such as idea generation, target audience, pitching and financing.

Graduate Accelerator Programme

The Graduate Accelerator Programme, funded by the QO-UnInn Enterprise Fund, provides an opportunity for five business teams to develop their entrepreneurial skills, test, launch and pitch their business ideas to industry buyers within 12-months. Along the way, participants clarify their vision, strengthen their mindset and evaluate market opportunities in order to build and launch their business idea. Teams can benefit from up to £10,000 awarded by the QO-UnInn Enterprise Fund, access to a physical co-working space, 1:1 results coaching and exclusive access to the University of Warwick's most successful graduate entrepreneurs.

Visa Start-Up Scheme

The University of Warwick Start-up Scheme gives overseas graduates with a viable, innovative and scalable business idea the opportunity to remain in the UK and develop their business under a Start-up visa for 2 years. The scheme is run in conjunction with the Home Office, and aims to identify, nurture and develop graduate entrepreneurs with a business idea they wish to develop in the United Kingdom.

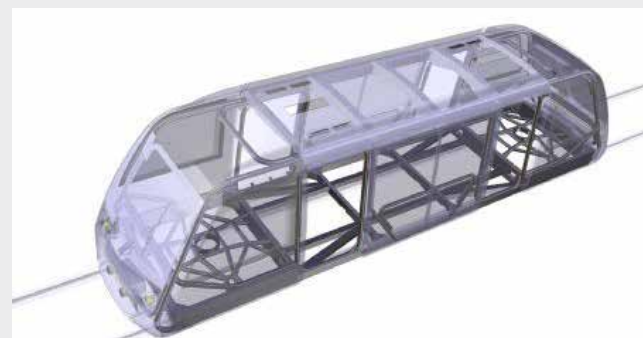
Student Enterprise Fund

The Student Enterprise Fund is available for current students at Warwick, successful applicants can receive up to £1,000 per academic year and a support package.

RESEARCH

Woven Light Rail

The BRAINSTORM project saw partners from Far-UK, Composite Braiding, TDI and WMG create a woven braided carbon fibre composite frame for a Very-Light Rail, and won gold at the JEC World 2020 Innovation awards in the Category "Railway Vehicles and Infrastructure." The frame is unique as it can be easily assembled by adhesive and simple welding, can be repaired if damaged, and



recycled or reused in other structures at its end of life. The reduced mass leads to a lower requirement for power and lowers the stress placed on the track system. This opens up significant cost saving opportunities in light rail systems. The technology ensures that the vehicle is tough for a long life in service, easily repairable and strong enough to protect the passengers on board.

DIG-BIO-RAIL

The EU funded DIG-BIO-RAIL project aims to improve the resiliency of railway earthwork infrastructure and mitigate potential economic, life, and property losses resulting from failure to apply a systematic approach. The project addresses critical gaps remaining in understanding of the life cycle performance of biopolymer-reinforced railway earthworks and interaction with the soil ecosystem.

Application of Expansive Geopolymers

Expansive geopolymers have been used for strengthening and releveling of soil in residential projects for several decades. The process is carbon neutral, highly sustainable and is used as an alternative to established techniques such as the use of Portland Cement. The process has however not been widely adopted in the infrastructure market. Despite the demand for such a solution the market has been slow to adopt due to the lack of a recognised design methodology and application specifications. Researchers in the School of Engineering have been working with the UK's leading Geopolymer Contractor (Geobear) to develop clear scientific principles which can be adopted on future projects using expansive geopolymers.



Slipform Tunnelling

Research carried out at Warwick into slipform tunnelling aims to bring together innovative technologies which will halve the cost of tunnel construction. In the UK alone it is conservatively estimated that this would represent a saving in the region of £5bn per annum. In addition to substantial cost savings, slipform tunnelling will deliver substantial time savings and utilise a far more sustainable lining system.

It is anticipated that the technology will cut carbon dioxide emissions by over 80% and result in tunnels that will remain serviceable for hundreds of years. Furthermore, in sensitive urban environments, tunnel construction can often lead to damage to the existing built environment or to the expenditure of large sums of money to mitigate for the effects of ground movements associated with the tunnelling process. Slipform tunnelling will eliminate many of the factors that lead to ground movements, thereby reducing disruption and further reducing overall project costs.

OPERATIONS

Postgraduate Award in Technology Enhanced Learning

The PGS TEL is a fully funded project based course open exclusively to all colleagues from both academic and professional services departments at the University. Successful completion of the course leads to 20 or 30 CATs and Associate Fellowship or Fellowship of the HEA depending upon the pathway chosen. The course is project based and colleagues are encouraged to share innovative ideas and discussions through a lens of design, technology and pedagogy. The course fosters the development of a community of practice in the process of designing, developing, implementing and evaluating a technology enhanced intervention within their own teaching and learning context. Participants support each other and build networks that often extend beyond the duration of the course. The PGA TEL also hosts workshops from experts across the institution who share their experiences and practice.

PUBLIC ENGAGEMENT

Pint of Science

Coventry and Warwickshire Pint of Science was launched in 2018 to highlight the innovative and impactful research that is carried out in the area. The public engagement team aims to share research with the wider public, reaching new audiences who wouldn't normally attend science events. The May 2019 event took place over three nights and consisted of short, fun and informative talks from researchers at both Warwick and Coventry universities. Topics covered included:

- Are batteries our heroes or villains?
- Plastics of the future; and
- Powering the future with Thermo Electrics.

SPARK Festival Hong Kong

The University contributed to the British Council's SPARK: The Science of At and Creativity festival in January 2019. It was represented by the Warwick Institute for Science of Cities who, along with Hong Kong University, hosted an Ideas Café on Solving Urban Challenges through Big Data. Achieving smart sustainable city life is high on the agenda of Hong Kong and by sharing research it was demonstrated how collaborative, university-led collation and analysis of big data can help solve pressing real-world challenges. The lively discussions included, disaster risk management and green infrastructure.

Warwick Enterprise

Warwick Enterprise (WE) foster innovation by partnering with, and supporting, enterprise-related societies. WE officially support the Warwick Enactus Society who make a real impact through social enterprise. The UNSDG's form the basis of each Enactus project. From local projects such as Food Intercept (a local food re-purposing project) and The Gateway (enhancing employability skills/livelihoods for local refugees and asylum seekers in Coventry), to International projects such as Project Baala (created to reduce the trade-off between food, education and sanitary products that prevails in India (and financially supported through Warwick Enterprise's Lord Rootes Memorial Fund)) and more recently I-Cycle (repurposing plastic into eye wear in India to uplift livelihoods and reduce plastic waste issues (supported through Warwick Enterprise's Student Enterprise Fund)). The University are extremely proud of the work that Enactus and other (enterprising) societies do across the University, which supports our civic aims and the fact that we have the largest Enactus team within the UK, showcases our students commitment to making a positive social/environmental impact difference both locally and internationally.



Reduce inequality within and among countries

TEACHING AND STUDENTS

Multicultural Scholars Programme



Being clever is not always enough to succeed at university. Very clever young people from underprivileged backgrounds can fail at university because of the more alien and alienating culture. The Multicultural Scholars Programme attempts to counter this sense of alienation by providing a supportive community. The programme is available to Law, Engineering and Warwick Business School students from low-income Pakistani, Bangladeshi, Black African and Afro-Caribbean backgrounds. It aims to help these students achieve their academic potential and enable them to influence society as role models in both their own communities and in the board room.

Students are mentored by older scholars and attend lunches, meetings, and cultural trips to both educate and to cement a sense of community and support. The programme also provides scholars with a grant of £2,000 per year for the duration of their degree, enhanced pastoral care, access to professional opportunities in top firms and the opportunity to apply for financial support to fund overseas work placements and activities.

Sanctuary Scholarships

Sanctuary Scholarships are available to undergraduate, postgraduate, and postgraduate research students seeking asylum in the UK and are not entitled to receive statutory student financial support from Student Finance England (Wales or Northern Ireland) or the Student Awards Agency for Scotland. Students will be offered a non-repayable 100% tuition fee waiver and maintenance grant, until they are able to access student finance.

Inequalities and Sustainable Development: Inclusion and Dignity for All

Students on the Global Sustainable Development BASc can take the optional Inclusion and Dignity for All module. The module helps students to analyse how inequalities shape our society, economy, and politics, and engage with current research in the area. It also critically reflects on SDG 10 and the relationship between inequality and sustainability.

RESEARCH

Borders, Race, Ethnicity and Migration Network

The Migration, Identity, and Translation Network facilitated student research into the linguistic landscape of Coventry through its 2019 sprinter school in multilingualism and diversity, MultiDiv, funded by the Monash-Warwick Alliance.

The project explored community members' perceptions of multilingualism in the city and languages represented in central sites of multilingual participation, including Coventry Central Library and St Francis of Assisi Church. Findings indicated that the use of English is encouraged over that of heritage languages, suggesting a possible disconnect between language policy, the integration agenda and linguistic reality.

Transforming gender relations in an ageing Africa (GCRF)

At present, 46 million older people live in sub-Saharan Africa, this is due to triple to 165 million by 2050. There is little or no study of age discrimination and protection against abuse in Kenya, Ethiopia, and Malawi and little legal or social work education and training which focuses on the rights and needs of older women and men.



A collaborative project to address this issue was undertaken between the University of Warwick, the University of Nairobi's Law School Nairobi, the Law Faculty at Mount Kenya University, and HelpAge International. It brought together policy makers, civil society representatives and academics from three African countries along with regional representatives from the United Nations and the African Union to discuss the needs and rights of older people, helping to ensure that the voices of older African citizens are fully represented in the project. This research is also relevant to Goal 5: Gender Equality.

Improving maternal health in India (GCRF)

In some Indian states, such as Rajasthan, the annual number of mothers who die per 100,000 live births is greater than 400, this is one of the worst rates in the world.

A research project at the University set out to improve the health of women before and during pregnancy. It involved a pilot intervention for reducing metabolic diseases such as gestational diabetes in high-risk women in India. The project aimed to establish prevention and management strategies for vulnerable young women with a history of gestational diabetes, strengthen research and clinical networks to help prevent disease and reduce early death and produce findings that could be implemented in similar countries.



OPERATIONS

Business Disability Forum Member

We are currently working towards being a member of the Business Disability Forum.

Positive Allies Charter

We have pledged our commitment to the Positive Allies charter and plan to submit for an award.

Gender Pay Gap Report

In 2019, the University of Warwick measured its BAME and disability pay gaps. The mean hourly rate of pay for staff of White ethnicity was 8.2% higher than for BAME staff, the mean rate for staff with no known disability was 13% higher than for staff who had declared a disability. To help tackle this problem, a Pay Action Group has been established to identify ways in which the University can improve its pay gaps.

PUBLIC ENGAGEMENT

University of Sanctuary

The University of Warwick has been a University of Sanctuary since 2017 and works with Coventry City of Sanctuary to ensure Warwick effectively contributes to local activities aimed at creating a culture of hospitality in the city and the university. Staff and students from every part of the university contribute to ensuring that Warwick is a welcoming place for people seeking sanctuary in the UK, by mentoring at-risk academics through being a 'CARA Angel', joining Student Action for Refugees or volunteering with organisations such as Coventry Refugee Centre.



Warwick Sutton Scholars

Warwick Sutton Scholars is a two-year programme for highly able Year 8 and 9 students from under-represented backgrounds in higher education across the West Midlands. The aim of the programme is to inspire students to consider university as an option for the future. The programme is run in collaboration with the Global Sustainable Development department including student ambassadors. This participants worked in groups on a research project titled 'Every Plate Tells a Story', aimed at addressing a problem linked to food and sustainable development.





Make cities inclusive, safe, resilient and sustainable

TEACHING AND STUDENTS

Sustainable Cities

In 1913 10% of the world's population lived in cities (UN-HABITAT, 2011), in 2018 this had increased to an estimated 55% (UN 2018). Despite covering only 2% of the world's landmass, cities produce 70% of total carbon emissions, over half of the world's GDP, are locations of often stark inequality and are uniquely vulnerable to a changing climate, as a result of their concentrated population and infrastructure.

Students on the Global Sustainable Development BASc can take the Sustainable Cities module, which aims to analyse built form, governance, culture and community, engage with opportunities offered by new community-led technologies, and critically reflect upon SDG 11.



Sustainable Cities and Infrastructure for Emergencies module

The Sustainable Cities and Infrastructure for Emergencies module is available to students on the Humanitarian Engineering MSc. It educates students on the issues that developing countries face in relation to basic infrastructures, the barriers to economic growth that they create and how they can exasperate problems in emergency situations.

RESEARCH

Building sustainable, flood resilient communities in Brazil (GCRF)

Creating sustainable, flood resilient communities is vital in parts of the developing world that are prone to flooding. A key part of flood resilience lies in flood risk data and understanding how it is produced.

Waterproofing Data is a project run by the University of Warwick's Professor João Porto de Albuquerque.

The project, which runs from October 2018 to September 2021, is a collaborative venture involving researchers from Brazil, Germany and the UK. A key aim of the project is to investigate how data flows from Brazil's National Disaster Monitoring and Alerts agency (CEMADEN), which creates and monitors existing flood data, to local government.



OPERATIONS

Public Transport around campus

The University's Transport Vision comprehends a combination of exciting regional transport investment along with local mobility and development initiatives will help redefine local and regional connectivity. The University strongly believes working more inclusively together and by building upon its strong relationships with all participants, it will help achieve a better connected, more sustainable campus with a transformational experience benefitting the lives of those living, studying, working and visiting.



PUBLIC ENGAGEMENT

Planning for Real in Canley

We are working with the people of Canley to facilitate the Planning for Real process by training and supporting residents and helping them devise an action plan for change in their community. Planning for Real is a nationally-recognised community planning process where residents develop ideas on a locally-made 3D map of the area. It allows a wide range of people from Canley to register their views on a variety of issues, work together to identify priorities, and go on to develop an action plan for change with the support of local agencies. We have delivered training for community leaders with the Centre for Lifelong Learning and collected more than one thousand suggestions. Action planning meetings are community-led with relevant expertise on hand from key agencies and stakeholders, including the University of Warwick.

Canley Pop Up Café

Canley Pop Up Café, an initiative of Dr Nor Aziz, a Warwick alumna, is supported by the University of Warwick, West Midlands Police, Coventry City Council, Canley Library and student volunteers. The cafe is an informal get together offering a friendly space for Coventry residents to meet people from different backgrounds and share stories. Free home cooked hot food is provided along with games and craft activities, the aim is to create a community feel in Canley and hope for the future.



Leamington Street Marshals

The Leamington Spa Street Marshals scheme is a partnership between Warwick District Council, Warwick Student Union, Warwickshire Police, and the University of Warwick. The Security Industry Authority accredited street marshals help to create a positive environment for students and other residents in Leamington Spa by providing wellbeing support and promoting positive community relations when students are on a night out. Examples include helping vulnerable students get home safely and arranging medical treatment for people who are injured.

Transmission

Transmission was an invited gathering for International university students and school children from the city of Coventry. It shared insights into infection through an innovative mix of lecture, practical demonstration and dance. It asked audiences to better understand the role of science in researching and combating antimicrobial resistance (AMR). The performance events fused research from both the universities of Warwick and Coventry, with Highly Sprung's use of physical theatre and dance, to illustrate the spread and control of infection at a microbial level. The audiences were invited into an interactive dialogue that sits between science and art, allowed them to participate in a mass demonstration revealing the rapid spread of microorganisms through human contact.

Ensure sustainable consumption and production patterns

TEACHING AND STUDENTS

Food Co Op

The Food Coop is a student-run, non-profit cooperative based at the University selling organic, fair-trade, and sustainably sourced food at prices affordable for all. Weekly stalls are held, during which students raise awareness and promote discussions about modes of production and consumption that are more environmentally friendly and that respond to social issues.



Metalmann

Metalmann received funding from the Student Enterprise Fund. It has a vision to democratise the complex non-ferrous metals recycling industry, empowering scrap yards and recyclers with unparalleled reach so the global potential of metal recycling can be achieved. As demand for industrial metals rises, it's critical to harness their infinite recyclability, ensuring 'responsible production'. However, only 30% products are currently manufactured from secondary-metal.

Metalmann is a transformative, B2B platform using advanced digital-technology to bring scrap-yards and recyclers together, without any intermediaries, so they can trade efficiently, across the world. Within a year launching, 500 aluminium companies from 20 countries trade on Metalmann and it was promoted in the prestigious conventions of the Bureau of International Recycling (Europe), Institute of Scrap Recycling Industries (USA) and Metal Recycling Association of India.

RESEARCH

WCIBB

Researchers at the Warwick Centre for Biotechnology and Biorefining (WCIBB) are involved in the conversion of renewable plant biomass into high-value chemicals and materials for manufacturing. Prof Tim Bugg's research group (funded by BBSRC and EU) are using novel lignin-degrading bacteria and enzymes to convert the aromatic polymer lignin into aromatic chemicals, for example a pyridine-dicarboxylic acid that is a component of new bio-based plastics in collaboration with Biome Bioplastics Ltd. Prof Kerry Kirwan's research group (funded by EPSRC) are developing new biocomposites from agricultural waste and recycled carbon fibre to use in manufacturing. Dr Guy Barker's research group is using brown rot fungus *Serpula lacrymans* for biotransformation of tropical agricultural biomass, in collaboration with research groups in Indonesia.

MINRESCUE

The MINRESCUE project aims to develop innovative concepts for managing, recycling and upcycling waste geomaterials generated by past and current coal mining activities across Europe.

The core objective of the project is to develop effective strategies to use coal waste as a constituent in sustainable construction materials and products. With significant money saving and environmental footprint reduction, MINRESCUE will substantially contribute to the establishment of a circular economy, particularly in coal mining areas. The project involves a consortium of researchers and practitioners from the University and different institutions across Europe, including the UK, Poland, France, Italy, Spain and Ukraine.

Circular Economy Researchers Network

The Circular Economy Researchers Network at Warwick aims to support the transition to a circular economy. It helps to facilitate networking and the sharing of ideas between researchers working on the circular economy across different faculties. The network has held external and internal speaker events, discussion forums on circular economy and is currently completing a baseline analysis of the circularity of the University of Warwick.

Reuse of Nissan LEAF batteries

Once EV batteries have fulfilled their life-span for automotive applications, they are usually recycled by the manufacturer. However many automotive Lithium-ion batteries have enough life left in them after the car is scrapped for 'second-life' uses both domestically and industrially. To do this, it is necessary to "grade" the used batteries - identifying those suitable for use as spare parts, second life, and recycling. This grading process is traditionally a long and expensive process.



Part-funded by the Department for Business, Energy and Industrial Strategy, the UK Energy Storage Laboratory project was launched, where 50 Nissan LEAF batteries were used to develop the existing grading process led by Nissan, WMG at the University of Warwick, AMETEK and Element Energy. WMG's battery technology experts in the Energy Innovation Centre developed a safe, robust and fast methodology for used automotive Lithium-ion batteries. In addition, the team developed ways of grading modules, the sub-components of battery packs, in as little as 3 minutes.

Extracting the powers of fly larvae in South Africa GCRF

Chitin is a naturally occurring biopolymer, it can be found in the exoskeleton of insects. The larvae are high in fats and protein and are used as a source of animal feed. However, whilst the larvae are an excellent protein source for animal feed, animals find them difficult to digest, and the husks are shed by the larvae, which is where most of the chitin can be found. The larvae need to be removed from the feed as a waste product.



Methods of extracting chitin do exist, but they are chemical- and energy-intensive, and produce waste. A group of researchers at the University undertook a project researching less resource-intensive methods of chitin extraction, with lower chemical and energy use and a potential reduction in the scale and hazard of waste in future. The project was a collaboration with the South African waste management company Aegis Environmental.

OPERATIONS

Pay as you feel



During Arrivals Week 2019 the University held its first 'Pay as you Feel' event. The Energy and Sustainability Team, alongside student volunteers, sold items that had been collected during the RAWKUS collections at the end of the summer term.

New and returning students had the opportunity to buy a variety of items from pots and pans to cutlery and utensils, and from clothing to clothes airers. There was a lot of support and enthusiasm for the event, which raised more than £3,500 for local charity, Action 21.

Campus & Commercial Services Group

All water bottles delivered through Warwick Food and Drink are non-plastic and reusable, saving 30,000 previously purchased bottles per year from disposal.

PUBLIC ENGAGEMENT

reStore café

Warwick Environment and Sustainability team and the School of Engineering Build Space held the first reStore cafe in 2019. The



regular events are an informal get together for people to take, repair and upcycle anything from electrical and mechanical devices to bicycles and clothing. Tools and equipment are provided as is the help of some expert repairers and makers. Sometimes a very simple repair is all that is needed to fix a broken or damaged item, saving it from going to landfill and reducing environmental costs. The act of repairing or upcycling extends a product's useable life, reduces waste and pollution, and saves energy, carbon emissions and finite non-renewable resources.

Project Baala

A project created by Warwick students. This is impact-oriented, youth led organization committed to making menstruation a non-issue in India. Baala (meaning young girl in Hindi) aims to tackle the main problem about female menstrual hygiene recognized in India: the expense of modern sanitary products, problem of disposal, complete lack of awareness and information and the social taboos surrounding menstruation.





Take urgent action to combat climate change and its impacts

TEACHING AND STUDENTS

Sustainable Automotive Engineering MSc

The Sustainable Automotive Engineering MSc, taught within Warwick Manufacturing Group, provides students with a holistic understanding of the different technology options and methods relating to new energy vehicles. It covers aspects from motivations for electrification, to design of cells, electric machines and control systems.

A new course "Sustainable Automotive Electrification" is in development for the 2020 academic year which builds on those elements. The course will cover the strategies employed to deal with the challenges the Climate Emergency brings to the sector, both organisationally and technically.



Climate Change modules

The University of Warwick has many modules across multiple departments that tackle the issues of climate change including:

- Climate Change (Life Sciences) - provides a broad introduction to the science of climate change, its origins and consequences.
- Challenges of Climate Change (GSD) - focuses on the challenges that climate change raises across science, economics, politics and engineering.
- The Politics of Climate Change (PAIS) - provides an overview of the key debates, arguments and conceptual approaches within global politics.
- Climate Change and Development (Law) - addresses the science and economics of climate change as the basis for analyses of the limits and potential of the law in addressing the problem.
- Climate Change and Law (Law) - based on the climate science of the Intergovernmental Panel on Climate Change and examines law, ethics, politics and economics of the climate crisis and the possibilities of climate justice in the Anthropocene.

PUBLIC ENGAGEMENT

Green Week

Established in 2017, the Coventry and Leamington Spa Green Week was set up by University of Warwick, Coventry University, Coventry City Council, Warwick District Council and Action 21. The aim of the week is to engage everyone across the region in education and action towards tackling the Climate Emergency and the UN Sustainable Development Goals.



RESEARCH

Impact of marine carbon on climate change

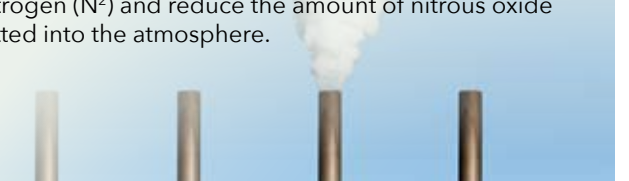
Winter warm spells see a two- to three- fold increase in duration and frequency in UK temperature records. Climate variability is expected to increase as the global climate warms, and the increase of extended warm spells during winter can have an important impact on agriculture and the sustainability of ecosystems.

Analysis of historical daily temperature data by the Department of Physics, the British Antarctic Survey, and the London School of Economics and Political Science found that warm winter spells have increased in frequency and duration two- to three times over since 1878. Data was used from the Central England Temperature record, the longest available instrumental record of temperature in the world. Researchers used observations of daily temperatures to show how the likelihood of different temperatures changed. By applying a method called crossing theory to these probabilities, the scientists demonstrated a valuable new approach for studying the less obvious consequences of climate change.

Elusive compounds of greenhouse gas

Nitrous oxide (N_2O) is a powerful greenhouse gas, with a half life of 114 years in the atmosphere and global warming potential 300 times greater than carbon dioxide. Although naturally occurring, anthropogenic N_2O emissions from intensive agricultural fertilisation, industrial processes, and combustion of fossil fuels and biomass are a major cause for concern. It is also the dominant ozone depleting substance emitted in the 21st century.

Researchers at the University have isolated compounds of N_2O that provide clues into how it could be used in sustainable chemical technologies. The use of N_2O as an oxidant in organic chemistry is an attractive prospect, as it could be used to liberate environmentally benign dinitrogen (N_2) and reduce the amount of nitrous oxide emitted into the atmosphere.



OPERATIONS

Climate Emergency

The University recognises that the next ten years will be crucial to limit global temperature rise and as such declared a Climate Emergency in September 2019 with associated carbon reduction targets of:

- Net Zero carbon emissions from scopes 1 and 2 by 2030; and
- Net Zero carbon emissions from scope 3 by 2030.



Campus & Commercial Services Group

The Intergovernmental Panel on Climate Change recommends to lower personal carbon footprints, people should consider cutting down on carbon intensive foods, such as red meat. Warwick promotes chicken as the least impactful meat protein, and plans to reduce red meat dishes from 17% to 10% of main meals sold by the end of 2020. This would equate to around 22,000 fewer red meat dishes sold per year.

COP26 Universities Network

The University of Warwick is a member of the COP26 Universities Network, a growing group of more than 30 UK-based universities working together to improve access to evidence and academic expertise for COP26 for the UK government, NGOs and the international community. It demonstrates and activates the role of UK universities and world-leading science and research in contributing to a net-zero emissions and resilient future.

ECOBULK Thinking

The university is a member of the Ecobulk European circular economy project.

The current linear economy model is inefficient and unfair. Wasting our planet limited resources is not sustainable. Making the model more circular is not easy, but not impossible.

ECOBULK is a large-scale European initiative which will demonstrate that re-using, upgrading, refurbishing, and recycling composite products is possible, profitable, sustainable and appealing.

The project selected composite products in the furniture, automotive and building sectors as demonstrators to prove our new circular model. Outdoor shelter material will be tested at Warwick campus for evaluation and public feedback.

www.ecobulk.eu/





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

TEACHING AND STUDENTS

Biodiversity and Ecology GSD

The Biodiversity and Ecology module, taught within Global Sustainable Development courses, provides basic knowledge surrounding ecological principles, theories and applications to help students interpret and make connections between humans and the environment.



RESEARCH

Harnessing the power of biomass (GCRF)

Once in the ocean, plastic decomposes very slowly and is incredibly damaging to sea life. While the UK is working to improve waste management through recycling and the creation of bioplastics, such efforts are eclipsed by relentless plastic usage in developing nations. Indonesia, with its growing population and rapid urbanisation, is the world's second biggest contributor to plastic waste in oceans. The United Nations Environment Programme predicts that plastic waste in oceans causes \$13 billion of damage each year.

Indonesia possesses a rich and untapped biomass resource, which is often disposed of by burning, in turn leading to greater pollution. In fact, the country generates the highest waste biomass in the world. However, using biomass to make biofuels and bioplastics has incredible

potential. Indonesia's climate provides a perfect environment for year-round plant growth, resulting in the production of large quantities of biomass.

A research project has been undertaken in the School of Engineering to help produce solutions to convert organic biomass (waste material from plants or animals that is not used for food) into biodegradable plastics and renewable fuels. The project could also have other benefits, as new resources could decrease the need for imported chemicals, contributing to welfare and economic development.

Removing plastics from India's freshwater systems (GCRF)

Microplastics are very small pieces of plastic that are increasingly contaminating the world's rivers, lakes and seas. They come from a variety of sources, including larger plastic debris that degrades into smaller pieces. A project in the School of Engineering has examined microplastics in water systems to help develop effective waste management strategies.

Working in in Thane, East India, with the Indian Institute of Technology, the project produced up-to-date data on microplastic water pollution in the region and shared knowledge of microplastics in local communities. Part of this involved a digital communications hub where people can share live information about water quality hazards, and through which support agencies and service providers were able to communicate with each other.



Protecting marine environments must start with the community (GCRF)

Public awareness is growing of the damaging effects of overfishing. One way it is being addressed is through marine protected areas (MPAs). MPAs are protected areas of seas, oceans, estuaries or lakes designed to limit fishing. In developing countries, there is still little understanding of MPAs' impact on local communities. Global targets for MPAs prioritise quantity over quality, they are often established without consultation or consideration of how humans interact with their environment, and can negatively impact attitudes towards future conservation projects.

A team at Warwick investigated the impact of MPAs and community support in three Cambodian coastal communities. By conducting interviews, questionnaires and workshops with communities, NGOs and policy makers, the project identified key themes to help design and create MPAs that support sustainable use of marine resources.



OPERATIONS

Sustainable Urban Drainage Systems (SuDS)

The University's Campus Masterplan was approved by Council in February 2019. The associated drainage strategy sets out to enhance the landscape and ecological value of the estate. All developments are required to use SuDS unless there are practical reasons for not doing so. The aim is to reduce runoff rates and where possible, deal with surface water as close to its source as possible. It will be achieved through green/blue/brown roofs, rainwater harvesting systems and permeable surfaces.

PUBLIC ENGAGEMENT

Leamington Canal Clean-Up

Student volunteers help the Inland Waterways Association in the bi-annual clean up of the canal in Leamington Spa, a popular area for students. Items removed from the canal in the past have included shopping trolleys, mattresses, bicycles, signs and even a golf buggy.





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

TEACHING AND STUDENTS

Ecology and Conservation

A short course in Ecology and Conservation is offered within the Centre for Lifelong Learning.

Students learn fundamental concepts of ecology and biodiversity, and humanity's influence on it. Theoretical principles underlying wildlife conservation are examined, with the context of their use in management of various ecosystems. The ecology of woodlands, streams, ponds, grassland and moths is investigated by fieldwork and study of research reports.



OPERATIONS

Biodiversity strategy

The University's campus Masterplan through to 2030 was approved by Council in February 2019 and recognises the importance of green spaces for nature and for people. A Biodiversity and Ecology Strategy and Management Plan is being produced, which outlines the approach to how biodiversity will be protected and enhanced through the lifecycle of the Masterplan. The University is committed to (1) safeguarding existing ecological assets, (2) enhancing campus biodiversity, (3) sustaining and enhancing the great crested newt population, and (4) encouraging site users to engage with the natural environment.



Grounds management

The University considers the natural habitats and biodiversity on campus when managing the grounds. For example, felled timber, brash and dead wood are used to create habitats in woodlands areas, species are planted that are beneficial to insects, and some green spaces are not regularly mown to allow wildflowers to establish.

Species monitoring

An increasing number of staff and students are contributing to the University's knowledge of wildlife species present on campus. In addition, Members of the Grounds team are recording and undertaking regular monitoring as part of their work.



RESEARCH

Ecological Forensics

The School of Life Sciences offers a Ecological Forensics service to ecological consultancies, private individuals and wildlife enthusiasts. The DNA analysis services help to identify species such as bats, otters, mink, pine martens, badgers and rodents from faeces, tissue or hair. The samples received are used to help build up a picture of the genetic diversity and evolutionary history of the species involved.

Jam Grove

Jam Grove was planted in spring 2016 by staff, students and members of the local community. It provides an opportunity for fruit picking throughout the summer months and into the autumn and is a space for everyone to enjoy.



PUBLIC ENGAGEMENT



Tocil Wood Conservation

The Tocil Wood Conservation project is run in conjunction with Warwickshire Wildlife Trust, a leading local environmental charity. Tocil Wood is the bluebell wood on campus and enjoys protected status as a Site of Special Scientific Interest. Voluntary work undertaken by students helps to promote biodiversity in the habitat, benefiting wildlife and making it a more pleasant area for people to visit.

The main focus of the project is coppicing. This is a traditional method of woodland management which involves clearing sections of the woodland of young trees. Light can then get down to the forest floor which increases biodiversity in the habitat.

Arden Farm Wildlife Network

The University is a member of the Arden Farm Wildlife Network, which works with landowners to make space for nature. The Wellesbourne campus is taking part in two year project, funded by Severn Trent Water as part of their Boost for Biodiversity Scheme, which aims to significantly increase the number of tree sparrows in the area. Tree sparrows are on the IUCN Red List of Threatened Species and have declined in the past five years within the area.

At the Wellesbourne campus a wildflower area has been sown with specific pollen and nectar species, a winter wild bird seed mix was sown and ten tree sparrow boxes have also been installed. A total of 47 different species have been seen in the area including brambling, corn bunting, fieldfare, linnet, redwing, and yellowhammer.

Events on campus

The University runs various conservation and wildlife events to which the local community are invited. For example a small orchard was planted in 2019 and members of the public were invited to attend the planting plus a short session on the importance of living landscapes. The Warwickshire Wildlife Trust have also held two project launch events on campus; including a 'Wilder Future for Warwickshire', which aims to engage young people in conservation and to provide them with training.





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

TEACHING AND STUDENTS



Undergraduate Law Degrees

There are five undergraduate LLB courses within the School of Law at Warwick, including Law with French Law and Law with German Law. There also five other joint honours courses available across a range of other subjects. Most of these programmes can be taken as Qualifying Law Degrees, enabling students to enter professional training on completion. Law degrees at Warwick highlight the role of law beyond the narrow confines of individual nation states, examining law and legal institutions within a wider context.

RESEARCH

Police-Immigration Cooperation in UK Policing

Operation Nexus, a joint enforcement operation between the police and the Home Office, aims to bring together operational and intelligence capabilities and resources in the police and immigration services to deal effectively with offending by foreign national citizens, reduce costs involved in pursuing them through the criminal justice system, and enhance public security.

A project within the Centre for Operational Police Research at Warwick will evaluate the operation and examine the cross-border dimensions of migration policing in key migration sending countries. The objective of the work is to document and scrutinize how the emphasis on foreign nationals in British domestic policing has brought to the fore the role of the police in mediating belonging and has legitimized extraterritorial intervention. It is funded by the Leverhulme Trust and the University of Warwick's Impact Fund.

Pakistan (GCRF)

Human rights are a fundamental part of social justice, with the 2030 Agenda for Sustainable Development. Persistent human rights violations in Pakistan have long been a cause for global concern. In 2015, Pakistan established the National Commission for Human Rights (NCHR), to promote, protect and fulfil human rights.

The NCHR requires support in several key areas. With expertise in these areas, Warwick Law School undertook a project to help the Commission develop its potential and build its capacity. The project involved hosting a dialogue and a training workshop on human rights for the Commission staff. The workshop covered topics such as public international law, human rights treaty obligations, rights-based approaches to investigating cases, gender equality, non-discrimination and effective reporting. Additional workshops were attended by lawyers, students, academics and policy researchers working in the fields of international law and human rights.

Training trainers for ethical challenges in public office (GCRF)

Corruption, inefficiency and fraud are often thought to blight public office in countries such as Kenya. However, the causes of such problems are often deeply embedded in culture and politics and although they are often stridently denounced, this means that their discussion can face major cultural and political barriers. Non-governmental and international organisations also tend to make constructive conversations difficult.

A research project from Warwick in collaboration with Strathmore University in Nairobi aims to create a more reflective public service that aspires to high standards of integrity. The research has led to the development of a training programme to help public servants recognise, reflect on and negotiate the challenges they are likely to come across in public office, with the long-term goal of reducing corruption, inefficiency, bureaucratic obstructionism and duplicity.



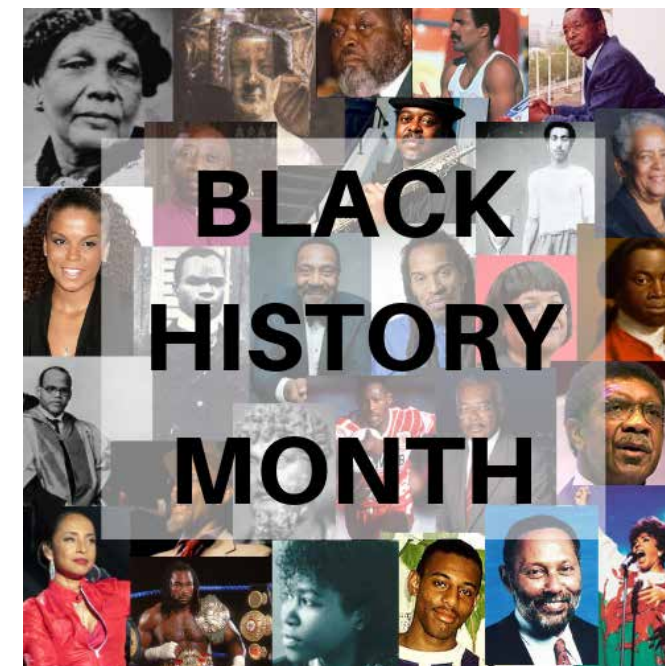
Working Beyond the Border

The Working Beyond the Border project, funded by the Economic and Social Research Council, saw researchers from the Warwick's Centre for Human Rights in Practice and Politics and International Studies department investigate the EU's Trade and Sustainable Development chapters of its Free Trade Agreements, with a particular focus on provisions aiming to improve the welfare of workers.

Their research identified serious deficiencies with the way in which the EU protects and promotes the welfare of workers and sustainable development through its trade policymaking processes. Through engagement with civil society actors, the European Parliament and the European Commission, the researchers influenced reform of key elements of EU trade arrangements to better protect these values.

Building Sustainable Peace and Development After Massive Human Rights Violations

A member of staff from the University is a member of the working group on SDG 16 and Transitional Justice coordinated by the International Centre for Transitional Justice. The purpose of the group is to feed into the work of the Pathfinders for Justice and their recommendations to the UN. It is important as part of the monitoring, evaluation and progress towards SDG 16. Such collaborations between UN member states and NGOs are fundamental for ensuring that the knowledge base exists for targeted action in seeking to achieve the SDGs. The working group is supported by partners and in particular the Task Force on Justice, which is chaired by ministers from Argentina, the Netherlands, and Sierra Leone and by the Elders.



OPERATIONS

Black History Month

The University celebrates Black History Month annually in October and recognises the importance of remembering Black history not just for one month a year but throughout the year. A list of quotes, blogs, videos, books, podcasts, resources and profiles is therefore available online.



PUBLIC ENGAGEMENT

warwickpride

warwickpride is the Student Union's society for Lesbian, Gay, Bi+, Trans, Undefined and Asexual/ Aromantic students and staff. The society is committed to campaigning for LGBTUA+ liberation both on campus and further afield, providing advice and welfare services, and running a busy and varied program of social events.

Strengthen the means of implementation and revitalise the global partnership for sustainable development

TEACHING AND STUDENTS



Global Sustainable Development Courses

The Global Sustainable Development (GSD) Department offers single and joint honours for undergraduate study. The single honours BAsc degree allows students to delve deep into the core concepts that structure global sustainable development, whereas the joint honours BAsc courses offer the chance to combine the unique transdisciplinary approach of GSD with another subject. Currently 11 joint honours courses are available across multiple areas including Economics, History, Life Science and Psychology. Degree programmes in GSD produce graduates that have knowledge and experience to tackle 'Big Questions' such as water scarcity, climate change, human rights, wealth inequality, bodies and health, 'green growth', and sustainable finance.

Achieving Sustainability: Potentials and Barriers

The Achieving Sustainability: Potentials and Barriers module is available to all students outside of GSD courses. It aims to make students from other areas of the university aware of the issues of sustainable development, its relevance to their own study area and to facilitate conversations between students and teachers in different subject areas.

Global Integrative Project

Global Integrative Project is a core second year undergraduate module for all students at the Warwick Business School (WBS). Based around teaching students the role and relevance of the UN SDGs for business, students compete in groups for the annual WBS For the Future Prize by developing the outlines of a solution that has the potential to address a combination of at least three UN SDGs. Past prize winners have suggested solutions such as a social enterprise that combines fog-harvesting with aeroponics, and the use of piezo-electronic pavement slabs. Students also write letters to directors at self-chosen companies advising them on how best to integrate the UN SDGs into their business strategies.

RESEARCH

Institute for Global Sustainable Development

The Institute for Global Sustainable Development (IGSD) provides a focal point for Warwick's sustainable development research, aligned with the SDGs. It undertakes world-leading transdisciplinary research and capacity development to tackle global challenges and enable transformative change of human-environment interactions. It also provides support to the Warwick research community to meaningfully and responsibly engage with global sustainable development challenges.

By establishing equitable partnerships with researchers and non-scientific stakeholders across the global North and the global South, IGSD works on challenge-led research projects that cross the boundaries of disciplines in the humanities, natural and social sciences, and achieve impact towards the SDGs.

Global Challenges Research Fund

Many of the research projects at the University that have particular consideration for the SDGs are supported by the Global Challenges Research Fund, these projects often involve partnerships with organisations from low and middle income countries and seek to tackle real world problems. Researchers at Warwick can also seek to make impact directly to the SDGs through Global Challenges Research Fund Fellowships, supported by Warwick's Institute for Advanced Study.

Improving insight, empathy and listening in global health research (GCRF)

Fieldwork is a cornerstone of global health research. It generates key data for policies and action to improve health outcomes, strengthen health systems and deliver affordable, quality healthcare for all. Tasked with collecting and managing such data, field teams are a crucial bridge between local communities and researchers.

However, global health research field teams, rarely (if ever) have the opportunity to meet each other to share knowledge and discuss what they do: what works, what doesn't, and how insight, empathy and listening are engendered. So researchers in the NIHR Global Health Research Unit on Improving Health in Slums at Warwick ran a workshop on fieldwork in Bangladesh, Kenya, Nigeria and Pakistan.



The workshop created a space for listening to, and documenting, the interests, needs and experiences of fieldworkers. Sharing knowledge, methods and examples of good practice allowed participants to learn from each other, compare approaches and build future international partnerships.



Warwick Interdisciplinary Research Centre for International Development (WICID)

WICID's mission is to address urgent problems of inequality and social, political and economic change on a global level through our research and impact work. Interdisciplinary, critical and robust analyses through collaborative knowledge building and exchange characterize WICID's approach and ensure impact in the fields we work in. WICID is committed to working together with its international partners across disciplines and institutions to produce world-class research. The WICID Methods Lab ensures the development of rigorous, innovative and interdisciplinary methodologies to pursue collaborative research and impact work. These resources are open access for all working in the field of international development.

OPERATIONS

Green Champions

The University has a network of more than 200 staff Green Champions who represent more than 40 departments covering academic, professional and technical areas. Green Champions are volunteers who form a network of like minded staff who want to help make the University environment and community a greener, healthier, happier place to live, work and study. Many Green Champions take part in Warwick Green Action and have formed teams to make positive environment change in their departments. The project started in September 2018 and 15 teams took part in 2019/20.

SDG Accord

The SDG Accord is an international network of multiple higher education institutions, in partnership with other organisations and networks such as NUS and EAUC. The purpose of the Accord is to inspire and advance the important role education has in delivering the SDGs, and commit institutions to annually report, collaborate and share experiences on the SDGs. Vice Chancellor Professor Stuart Croft signed the Accord in February 2020, and submitted its first report in July 2020.

PUBLIC ENGAGEMENT

Global Sustainable Development Year 12 Competition

The Global Sustainable Development (GSD) Department at the University runs a competition for year 12 students. The competition aims to engage with talented school students and give insight into the type of thought-provoking issues involved in studying GSD at Warwick.



Shortlisted students are invited to a GSD Campus Day at the university in which they meet other shortlisted entrants, members of staff from GSD and current students. Students also take part in activities and interactive sessions, and get a taste of what studying GSD involves. Each winner of the competition is awarded a £50 prize.



SUSTAINABLE DEVELOPMENT GOALS

REPORT METHODOLOGY

The period covered by this report and its case studies is that of 12 months preceding September 2019. The University engages with the UN Sustainable Development Goals (UN SDGs) in a multifaceted way. This report outlines some of the work that is being done in the University – we have chosen to highlight those projects that have completed and shown outcomes that can be reviewed.

We hope to map other ongoing work in our future reports.

The report has four sections :

- **Teaching and students** – covering all case studies around education, societies and student-led initiatives.
- **Research** – covering case studies around research taking place on campus and in collaboration with other groups and organisations.
- **Operations** – case studies of good practices and projects mostly happening on campus; led by or with involvement of the Estates Office and Professional Services)
- **Engagement** – any projects engaging with communities off campus.

A review of the University website, press releases and the University's Global Challenges Research Fund (GCRF) report alerted us to many of the case studies reported on here. Relevant interdisciplinary research centres and some research groups were then contacted for relevant research and full case studies were written from their replies. We also contacted relevant module/course leaders to report on teaching and SDGs including Warwick's flagship Global Sustainable Development program and Institute for Global Sustainable Development. Case studies for public engagement, initiatives and operations were written using press releases, Warwick Volunteers pages, CommUnity reports and from contacting relevant staff and students.



To find out more:

- warwick.ac.uk/SDG
- sustainability@warwick.ac.uk
- @WarwickUniSust
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Report Contributors

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Special thanks go to Oscar Warden for compiling the initial information and communicating to departments across the University.

Next Steps

We acknowledge this first report is only able to capture a snapshot with some of the University community contributions to the SDGs. We recognise that the contributions to the goals are interrelated and should not be seen as self-contained and separate. Future work will therefore ensure that these intersections are acknowledged and reported on.

Going forward, the SDG advisory group aims to work towards the development and implementation of the SDGs in Warwick and promote wider engagement of the Higher Education sector with the SDG agenda. Our group is working closely with the University's Climate Emergency Response Task Force to advise how the University could embed this agenda in its activities and be a proactive leader in research and education that contributes to the SDGs.

In conclusion, the SDG Advisory Group considers this report as a useful baseline to capture how the University of Warwick contributes to the SDGs. Our next steps will seek to close gaps that have been identified by the report and in the process of its creation. We welcome feedback from anyone reading this report so that we can continuously improve our reporting and practice.



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