

SUSTAINABLE DEVELOPMENT GOALS REPORT 2022



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Foreword

The Sustainable Development Goals offer a clear, coherent and readily comparable framework for understanding how a University is progressing in the broad field of sustainability. Critically. the relationship between diverse SDG components is recognised as being of significance well. areat as with acknowledgment that at the heart of sustainability and the resultant resilience is an integration of people and the environment. To this end The Universitv established has and substantially resourced а new Sustainability and Resilience Institute which will facilitate (SRI) the expansion of our integrative research, enterprise, education and Impact within sustainability as well as building local. national and international collaborations to this end.

This report provides a comprehensive report for the progress for the



University of Southampton in the SDGs and is the outcome of concerted and sustained efforts in sustainability across all disciplines. Examples of our research include impact in Goal 3: Good Health and Wellbeing which is particularly strong with more than 72,000 citations and high engagement with low/ low-middle income countries and in last year's THE Impact Rankings we came 68th globally for Goal 10: Reduced Inequalities and 71st globally for Goal 8: Decent work and Economic Growth (out of 1625 Universities participating in the rankings).We also have high commitment to principles of Goal 17: Partnerships for the Goals with 62% of our 2020 – 2022 scholarly output published with international partners (above the UK average) and our development of local collaborations such as the Solent Cluster and Centre for the South.

Prof. Craig Hutton, Professor of Sustainability Science and Director of the Sustainability and Resilience Institute, University of Southampton

Sustainable Development Goals at the University of Southampton

Introduction

The University of Southampton is committed to the United Nations' Sustainable Development Goals through our research, education, engagement and outreach and operations. We are a signatory of the Sustainable Development Goals Accord, demonstrating our commitment as a higher education institution to 'do more' to deliver the Sustainable Development Goals.

The University of Southampton's <u>Sustainability Strategic Plan</u> is based around the SDGs. This Strategic Plan signed off at the highest level of our institution sets out our vision and ambitions for sustainability at the University. We want to embed sustainability in all aspects of the University and to have achieved net zero in our scope 1 and scope 2 carbon emissions by 2030.

To deliver our Sustainability Strategic Plan we have identified and set six goals:

Goal 1. Achieve net zero emissions for Scope 1 & Scope 2 by 2030

Goal 2. Measure our total emissions footprint and set targets for Scope 3 emissions reductions.

Goal 3. Set a business travel emissions reduction target and implement through an appropriate action plan

Goal 4. Ensure that sustainability is a part of every University education programme by 2025.

Goal 5. Make sustainability a cornerstone of UoS' research and societal impact.

Goal 6. Implement a sustainable and ethical investment policy.

The University of Southampton has set up a cross-University Sustainability Implementation Group under the oversight of the University Executive Board and the Sustainability Strategy Board.

This Report

Overview

Whilst in this report we align projects with a singular SDG most of our world leading research spans multiple SDGs and are led by interdisciplinary and teams, partnering with global academic, industrial and non-governmental partners and engaging with communities. An example of this collaborative work is The Solent Cluster, a new partnership between University of Southampton researchers, industry partners and numerous other organisations to work towards decarbonising the Solent region. This project encompasses numerous goals, demonstrating wide collaborations, aiming to provide clean energy, reduce carbon emissions to achieve net zero, create decent jobs and improve and enhance industry and infrastructure through its innovative approach.

Field Weighted Citation Impact

As a research-intensive institution the impact of our work matters, none more so than in the interdisciplinary field of sustainability. In the following SDG reports we present our Field Weighted Citation Impact; this metric normalises citations of publications against publications of the same type in the same field to demonstrate performance against the average. A Field Weighted Citation Impact of 1 demonstrates the average, all our Field Weighted Metrics for our research related to each Sustainable Development Goal has been reported higher than 1.5, demonstrating all our research across the Sustainable Development Goals are cited 50% more than the average for that Goal. (See the Methodology Section of this report for how we assigned this metric). Due to the complexity of identifying research for Goal 17. Partnerships for the Goals we have presented our total publications, citations and average Field Weighted Citation Impact across the other Goals.

Our Field Weighted Citation Impacts for SDGs 1-16 can be viewed in figure 1. The total percentage of publications for each SDG for 2020 - 2022 out of publications related to the Sustainable Development Goals can be viewed in figure 2. The total percentage of citations for each SDG for 2020 - 2022 out of publications related to the Sustainable Development Goals can be viewed in figure 2.

As can be seen in figures 1, 2, and 3 the University of Southampton has considerable output and impact in relation to Goal 3: Good Health and Wellbeing with a Field Weighted Citation Impact 200% higher than the global average and high percentages of our overall publications and citations relate to this goal. These figures illustrate the scale of our activities and overall impact across all seventeen SDGs.

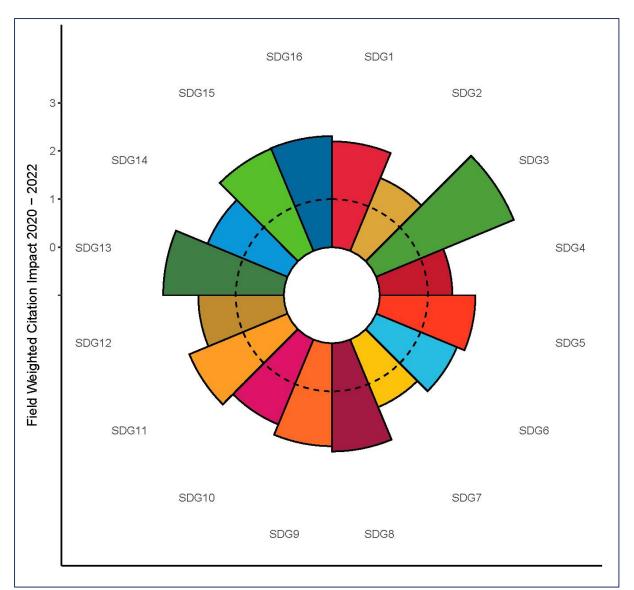


Figure 1. Radial plot showing University of Southampton Field Weighted Citation Indexes for SDGs 1-16 for the period 2020 – 2022. Dashed line indicates FWCI 1 indicating the average for the field (SDG) globally.

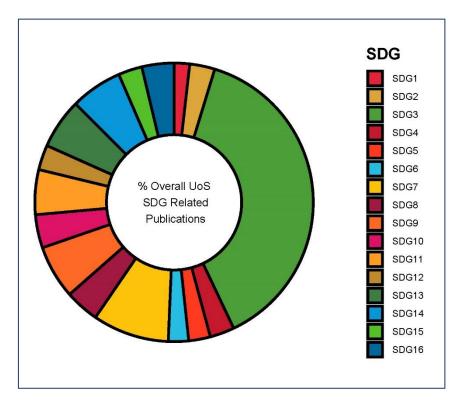


Figure 2. Publications by the University of Southampton (2020-2022) by SDG

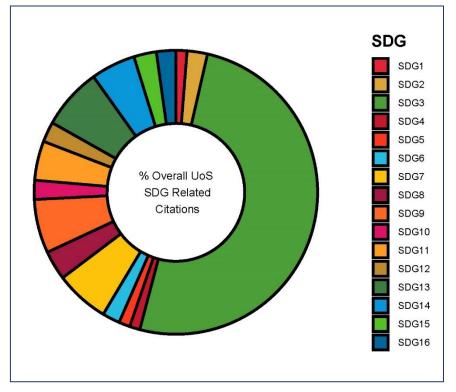


Figure 3. Citations (not weighted) of publications by University of Southampton (2020-2022) by SDG

Methodology

To develop this report, we conducted a review of research, education, engagement and operations for 2022 to present case studies and indications of the Sustainable Development Goal work we do.

The case studies in this report come from across all levels of our academic and engagement communities to show the range and depth of work ongoing at the University of Southampton across <u>research</u>, <u>public</u> and <u>policy</u> engagement. We have included research from both world-renowned researchers in their field to early career researchers and postdoctoral researchers, alongside representing the work of our students and staff to demonstrate the vital work all of our University community do.

The report for each Goal is divided into four sections: Research, Education, Engagement and Operations.

Research: Any research activity undertaken by members of the University of Southampton

Education: Including modules, field trips, opportunities provided to students in association with their degree or educational opportunities offered to the student body. **Engagement:** Includes engagement with the public and policy across all levels of government.

Operations: Any activities, policies, schemes or other activities related to how the University is run as an organisation.

Research metrics were generated using the <u>Elsevier2023 SDG keyword queries</u> on publications in the period 2020-2022 indexed in Scopus. Field Weighted Citation Index data was generated using SciVal.

University datasets and publicly available <u>HESA</u> data has been synthesised to present further information on our operations and metrics.

Goal 1. No Poverty

Research

DEEP

The University of Southampton is a member of the Data and Evidence to End Extreme Poverty (DEEP) consortium of universities in partnership with World Bank. The consortium seeks to build evidence, insights and solutions to end global poverty. The DEEP consortium aims to generate new global and national data that will be valuable to governments,



citizens, researchers and governments in improving the lives of the world's poorest people and eliminating extreme poverty.

Insights on Points Based Immigration and Poverty

A study by researchers from the ESRC Centre for Population Change at the University of Southampton show that migrant families will <u>have higher risks of poverty than UK</u> <u>families</u> even if the joint income of that family is above the median national wage, the study demonstrates the complexities of this issue and the causes behind this finding.

Publications	Field-Weighted Citation Impact	Number of Citations
138	2.2	1808

Education

Students on our Demography MSc learn first-hand about the issues and evidence surrounding poverty and population, and develop policy briefs on the topic as part of their assessment. This aids them in developing an understanding of these issues and how they impact different populations experience from poverty.

Engagement

Centre for Homelessness Research and Practice (CHRP) and Homelessness Community of Practice (HCOP)

The university have launched the <u>Centre for Homelessness Research and Practice</u> (<u>CHRP</u>) and <u>Homelessness Community of Practice (HCOP</u>). HCOP will develop collaborations between researchers and communities, co-creating and co-designing research and producing real world impact for those experiencing homelessness. CHRP held its first knowledge exchange and networking event for researchers and workers seeking to improve the lives of people who are homeless.

Operations

Student Support Fund

We have a <u>designated fund</u> to support students who find themselves unexpectedly in financial hardship regardless of household income, course level or age.

Goal 2. Zero Hunger

Research

Food Insecurity Risk Indices

University of Southampton researchers working with local governments and charities have developed <u>a new index</u> to identify risk for food insecurity based on geographic location and characteristics of the population across England.



Wessex DIET

The University in partnership with local

government, Solent NHS and Bournemouth University to analyse and explore the impacts of 'system shocks' on diet quality, food security and health in Wessex's young families. The COVID-19 pandemic and lockdowns will be used as examples of these system shocks. The project will develop a toolkit to aid councils in prioritising food aid initiatives for the public.

Publications	Field-Weighted Citation Impact	Number of Citations
224	1.64	3328

Education

Our medical students are taught the importance of <u>Food Systems</u> in specialised modules, informing them on globalisation and public health nutrition, sustainable diets and the needs around national food security strategies.

Engagement

Malnutrition eLearning

<u>Public and free elearning</u> is provided for those involved in child healthcare to identify malnutrition in children and understand and manage the specific needs of children with malnutrition based on WHO guidelines.

Operations

Our Student's Union SUSU have the SUSU Food For All programme, providing free tinned, dried and long-lasting food to any student who needs.

Our on-site food outlets work to provide healthy and nutritious food options to students, staff and visitors at fair and reasonable prices.

Goal 3. Good Health and Wellbeing

Research

The Threat of Heatwaves for All Children

Professor of Sustainability Science and Director of the Sustainability and Resilience Institute alongside other University of Southampton Researchers have collaborated with UNICEF as part of The Data for Children's Collaborative on



a key report revealing the <u>specific risks of increasing heatwaves specifically to</u> <u>children</u>. The report predicts that all 2.02 billion children globally will be exposed to frequent heatwaves and highlights the key risks children face with such high heat exposure.

Supercharging your Immune System

University of Southampton researchers led by Professor Nullin Divecha have identified a <u>potential new treatment</u> that could help the body find and destroy cancer cells, boosting the human immune system.

Combating Guilt Around Infant Feeding

Professor of Philosophy Fiona Woollard is researching new mother's feelings of guilt and shame around infant feeding decisions, such as decisions to breastfeed or feed their infant formula. Findings show that these feelings lead to negative impacts on wellbeing for mothers and infants. Using this research training events for the public and professionals have been developed and run to support sensitivity around the topic and reduce judgemental impulses around others' infant feeding choices.

Publications	Field-Weighted Citation Impact	Number of Citations
2932	3.1	72393

Education

The university provides a vast range of medical and healthcare courses such as undergraduate degrees, Masters degrees, Postgraduate Diplomas across a wide variety of specialisms. Examples of who we train are: Medical Doctors, Midwives, Nurses, Mental Health Practitioners, Physiotherapists, Podiatrists and Pharmacists.

Engagement

Countdown to 2030

WorldPop at the University of Southampton are working with the University of Ghana and the Ghana Health Service through the global collaboration Countdown to 2030 <u>Women's, Children's and Adolescents' Health.</u> The collaboration seeks to provide high quality evidence at a national and subnational level to improve and enhance the capacity of the Ghana Health Service.

Research into the Aging and Wellbeing of Older People in Kenya

Our Centre for Research on Aging has been researching <u>the wellbeing and aging of</u> <u>Kenyan older people living in slum settlements</u>. This research has been used as evidence to policy debates and findings have contributed to the introduction of a universal social pension in Kenya. This research has had wider impacts across Sub-Saharan Africa for the wellbeing and understanding of older people.

Operations

The university provides 24/7 support in halls of residence for students, and all students can access mental health support including self-help resources, counselling, mindfulness classes and drop-in sessions.

We have specially designated rest and study rooms for students with disabilities and long-term health conditions to ensure these students can study and relax on campus in the ways appropriate to them.

We provide specialist support for those students who identify as neurodivergent and those with specific learning differences. This support may be in the form of 1:1 study skills support or specialist study skills sessions.

Goal 4. Education

Research

ACoRNS Southampton

The Autism Community Research Network @ Southampton (ACoRNS) is a partnership between members of the School of Education, School of Psychology and local schools and nurseries. The work researches and disseminates good practice in education



for children on the autistic spectrum and use the views and experience of the children themselves to help them when settling into new schools.

Quality

COSMOS

University of Southampton researchers are part of the <u>COSMOS</u> ((Creating Organizational Structures for Meaningful Science education through Open Schooling for all) consortium of seventeen partners across seven countries is working to open up schools to their communities to tackle the issues of low engagement with scientific education and career ambitions. The low engagement of women from socioeconomically disadvantaged backgrounds in scientific learning and careers will also be addressed.

Publications	Field-Weighted Citation Impact	Number of Citations
218	1.51	1695

Education

<u>The University of Southampton Education School</u> provides a faceted array of modules on their undergraduate degrees, giving students the ability to learn across education topics such as providing education for adult learners, the needs of Autistic learners, Social Justice & Inclusive Education and developing a strong sense and understanding of the current issues in providing quality education across demographics.

Engagement

SOTSEF

The Southampton Science and Engineering Festival (<u>SOTSEF</u>) is our annual and award-winning public science festival. The festival runs over a period of ten days and visitors can experience a wide range of innovative and fascinating interdisciplinary events, from live performances, to interactive activities to tours of our would class laboratories and facilities visitors of all ages can engage with university staff, students and researchers.

eLearning

The University provides free online learning through platforms such as <u>FutureLearn</u> where the public can learn about a wide range of topics, from addressing global challenges to the uses of insulin.

Podcasts

Members of staff also host a variety of free podcasts such as the <u>'Policy Pod'</u> giving the public the opportunity to learn more about our researchers and experts critical work tacking global challenges.

Operations

ePrints Soton provides students and staff access to research from across the institution, giving students access to our world class research to further their studies and knowledge.

Our library services provide support to students with subject guides, one on one support, study skills support and Special Collections with around 7 million manuscript items and 50,000 printed books.

Goal 5. Gender Equality

Research

Women CEOs: The Struggle and Dynamics in Leading Organisations Dr Nunung Nurul Hidayah working in collaboration with an Indonesian enterprise board member is exploring the struggle of women who lead organisations and the complex dynamics they encounter when in leadership positions leading men and women.



Beyond Notability

Professor James Baker is exploring the histories of women in archaeology, history and heritage, working with researchers with experts across social history, information science and digital humanities, this research will show the true extent of women's contributions in these fields.

Publications	Field-Weighted Citation Impact	Number of Citations
193	1.99	1835

Education

The University in partnership with the British Council <u>offer five fully funded</u> <u>scholarships</u> for female students from several South Asian Countries to address the imbalance of women represented in STEM subjects. The scholarship is for eligible postgraduate study and covers all costs.

Engagement

The Distinguished Lectures

As part of 'The Distinguished Lectures Series' the University of Southampton facilitated an online <u>International Women's Day Event</u> – 'Southampton's Inspiring Women: International Women's Day'. Women from across the University's alumni and academic communities discussed their success and careers in their sectors.

Operations

In 2022 the University of Southampton were delighted to <u>renew our institutional Athena</u> <u>Swan Silver Award</u>; the university is a signatory founder of the of the Athena Swan gender equality charter and are committed to tackling gender inequality in higher education. The renewal of our Silver Award recognises our significant achievements in addressing gender inequality challenges and promoting gender equality.

Goal 6. Clean Water and Sanitation

Research

Microplastics in Fishmeal

University of Southampton researchers have found that <u>predicted amounts of</u> <u>microplastics found in fishmeal</u> are likely underestimated in the existing literature. They propose environmentally friendly methods of extracting microplastics for assessment.



Building Research Capacity for Sustainable Water and Food Security in Sub-Saharan Africa (BRECcIA)

University of Southampton Researchers are working to develop research networks and collaborative research projects across African institutions concerning water and food security as part of <u>BRECcIA</u> a six university collaboration with eight international partner organisations.

Publications	Field-Weighted Citation Impact	Number of Citations
180	1.82	2861

Education

We provide a focused <u>Water Pollution</u> module, this provides students with a comprehensive understanding of the fundamentals of the issues currently surrounding water pollution and the science behind the consequences of different types of water pollutants and their sources and modes of transport into our waterways and marine environments.

Engagement

Future Towns Innovation Hub

The Future Towns Innovation Hub ran a '<u>Sustainable management of water resources</u> and the aquatic environment in our future towns' water workshop with numerous presentations from researchers, policymakers, non-governmental organisations and industry partners, facilitating relationships between these groups to tackle the challenges around water in our urban environments.

Operations

Free drinking water is provided across our campuses <u>with water fountains widely</u> <u>available</u> for students to fill their reusable cups and bottles. We measure and monitor our water usage across campus to work towards reducing our overall consumption.

Goal 7. Affordable and Clean Energy

Research

The International Conference on Evolving Cities 2022

The International Conference on Evolving Cities 2022 took place at the University of Southampton, with over 150 keynotes, delegates, 11 48 oral presentations and 10 posters the conference was attended by delegates



from over 60 national and international organisations. A Residential Heating Forum was held alongside the conference sessions with experts in the field of sustainable energy. The conference was chaired by Doctor Stephanie Gauthier and Chair of the University's Sustainability Implementation Group and Chief Scientific Officer to Southampton City Council Professor AbuBakr S. Bahaj.

Solar Cooking in Bangladesh

Doctor Tasmiat Rahmen of the School of Electronics and Computer Science is leading a project to bring <u>solar powered cookers into Bangladeshi slums</u>, aiming to reduce emissions and improve the lives and health conditions of residents. The e-cookers would be powered by solar panels above homes to reduce the reliance on burning solid fuels such as wood which can lead to serious respiratory illnesses and fire safety risks. 60 homes are now equipped with e-cookers powered by a central solar system.

Publications	Field-Weighted Citation Impact	Number of Citations
681	1.52	8834

Education

We offer a <u>Mechanical Engineering</u>/ <u>Sustainable Energy Systems Master of</u> <u>Engineering</u> course, students undertaking this course will develop core and advanced skills in this area, with focuses on fuel cells, photovoltaics, biomass systems, tidal energy and wind turbines. This course is accredited by the Institution of Mechanical Engineers, the Engineering Council and the European Accreditation of Engineering Programmes.

Engagement

Green City Performance Tracker

The Energy and Climate Change Division at the University of Southampton has worked in association with Southampton City Council to develop the <u>Green City</u> <u>Performance Tracker</u>. A charter was developed to aid the City in transitioning to becoming a zero carbon city, the Green City Performance Tracker was developed to assess progress by signatory bodies against the charter and their sustainability targets.

LATENT Pint of Science

Dr Stephanie Gauthier presented at <u>a public Pint of Science</u> event about the need to decarbonise our homes heating, cooking and hot water systems, her talk examined how this could create impact on the UK's annual electricity demand in combination with the move to electric vehicles and presented research on the LATENT project, exploring the potential for homes' electrical heating to be used as a 'heat store' controlled by a third party.

Operations

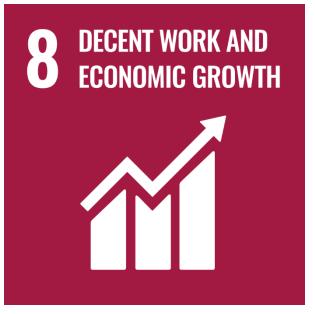
The University of Southampton is on a renewable energy tariff, all energy paid for by the university is generated by renewable sources, such as solar and wind.

Goal 8. Decent Jobs and Economic Growth

Research

lt's a Man's World

University of Southampton researchers have published work considering the issues surrounding women, transportation and work. This publication identifies women's disadvantages in relation to using transport and the impact it has on their ability to engage in working



life and progress in their careers. This research concludes that current transport systems, both public and private need to change to facilitate women's equal ability to work, with improvements to the safety of public transport and active transport for women and cars should be designed to be ergonomically as safe for women as they are for men.

Workers' Rejection of Returning to the Office

Research by University of Southampton researchers has found that following the COVID-19 pandemic <u>office workers and managers have found numerous benefits in</u> <u>the working from home model</u>. Benefits include reduced travel and need for transport, an improvement in managers' trust in their workforce and the ability to suit the individual needs of workers in relation to their work and wellbeing.

Publications	Field-Weighted Citation Impact	Number of Citations
304	2.25	4781

Education

Many of our degrees offer work placements or pathways including a year in industry, all students on an eligible degree can opt to take part in a <u>Year in Employment</u> <u>Placement</u>. Students are provided with support in sourcing employment by Careers, Employability and Student Enterprise, we provide continued support for our students during their year in employment and work to ensure they are able to restart their studies smoothly following the experience. This programme offers students the opportunity to develop skills, explore their future employment options and gain experience.

Engagement

Careers Support for Alumni

We offer <u>careers support for our alumni</u>, giving them access to our in-depth career resources and access to our careers fairs and workshops. Alumni can engage with our <u>UoS Career Hub</u> to further their employment.

Operations

The University of Southampton recognises the right of our employees to union membership and provide Union information to employees and potential employees.

Goal 9. Industry, Innovation and Infrastructure

Research

The Solent Cluster

The University of Southampton is a founding member of the <u>Solent Cluster</u>, which is one of the UK's largest and most diverse heavy carbon dioxide emitting industrial decarbonising cluster. It brings



together academia, businesses, civic bodies, policy makers, schools and colleges amongst other sectors in a regional mission to achieve a decarbonised future. The University holds a strong research and innovation portfolio for supporting the decarbonisation transition across various sectors, including transportation, domestic, enterprises of varying scales, etc.; so aligning our expertise alongside the decarbonising efforts of the regions heavy emitters will collaboratively enable us to promote cross-sector engagement; support wider decarbonisation planning; translate and support the understanding of the general public; identify challenges and opportunities for various stakeholders to accelerate efforts, whilst capturing future research opportunities.

Amara Automotive

Amara Automotive is developing an enclosed four-wheel electric bike The Elecy, designed for cycle lanes, reducing carbon emissions whilst keeping riders safe. Founder and director of Amara Automotive is Tamara Ivancova an aeronautical engineering undergraduate student from the university. <u>Tamara won first prize</u> in the Big Ideas category of the Engineers in Business Champion of Champion Innovation competition.

Publications	Field-Weighted Citation Impact	Number of Citations
476	2.14	8795

Education

Our Civil Engineering students undertake the <u>Liveable Cities</u> module, gaining insight and context for the complexities of shaping cities into places that meet people's needs across work and life. Following from this module students complete a <u>City</u> <u>Infrastructure Design Project</u>, developing a project that works towards a particular issue or impact. Projects integrate concepts of sustainability project management and structural design, with students developing the project from concept to deployment plan.

<u>Student Innovation Projects</u> provide students with the opportunity to gain work experience working with students from other disciplines on a real-life business issue. The student group will be paired with a non-profit group or business to solve problems and gain valuable skills.

Our <u>Foundership scheme</u> gives students the opportunity to develop their own business ideas with £3000 funding, expert support and skill development over the 12 week scheme.

Engagement

SETsquared

The University of Southampton is part of the <u>SETsquared</u> partnership between the top six research universities in the UK. SETsquared is a business incubator that provides acclaimed programmes to develop innovative ideas into successful businesses. Since it's launch in 2002 SETsquared has supported over 5000 entrepreneurs in raising investments of over £3.9 billion.

Operations

The University of Southampton's <u>FutureWorlds</u> is a start up accelerator that supports students and staff in becoming founders of their own start up businesses with innovative ideas and support from successful mentors. Startups supported by FutureWorlds have found success globally and cover a broad range of innovative concepts, from AI to biotech.

Goal 10. Reduced Inequalities

Research

Assessing Flood-Risk Preparedness, Response and Post-Disaster Reconstruction in Hull Through the Frame of Antiblackness: Living the Afterlife of Slavery

PhD researcher Michael Lomerty's research uses antiblackness as an epistemology and a theoretical ontological framework through



which to seek to uncover truths in climate change discourses. Aiming to uncover if and how climate change responses, despite their many positives, appear to mirror other structures of society where Black lives are definitely not mattering.

Exploring the Impacts of Long Covid Within Ethnic Minority Groups

University of Southampton researchers are part of a team comprising of numerous UK Universities <u>exploring the symptoms</u>, <u>healthcare and treatment of ethnic minority groups living</u> <u>with Long Covid</u>. Connecting with people living with Long Covid they are gain an understanding of their lived experiences including the challenges they face accessing support and the impact Long Covid has on their lives. The project aims to promote culturally appropriate healthcare and improve patient care and self-management.

Publications	Field-Weighted Citation Impact	Number of Citations
296	1.91	3107

Education

Across our degree programmes we run numerous modules examining inequality, its causes and impacts. Such as our <u>Wellbeing</u>, <u>Inequality & Place</u> module which examines the unequal distribution of health outcomes across space and examining contemporary issues such as environmental racism, the refugee crisis and food poverty. We also provide the module <u>Inequalities in Everyday Worlds</u> which considers the experiences and meanings of inequality.

Engagement

HomeGrownSO14

<u>HomeGrownSO14</u> is a University skills and knowledge to residents of the SO14 postcode area programme. HomegrownSO14 is working towards university policy that enables this transfer of knowledge and skills to local residents, the SO14 is a deprived area within the city of Southampton with some of the worst assessed health. HomeGrownSO14 will use a data driven community approach to address the cost of

living crisis in this area, acknowledging and eliminating exclusionary research practices, structural racism and legacies of colonialism.

Operations

The University of Southampton has a dedicated <u>Equality</u>, <u>Diversity and Inclusion</u> <u>Strategic Plan</u> ensuring everyone feels welcome, included and supported for who they are and equality, diversity and inclusion are embedded in our <u>University Strategy</u>. We are an accredited <u>Disability Confident Leader</u>, we ask all applicants in their submission if they wish to be considered under the Guaranteed Interview scheme. Voluntarily opting into this scheme means we offer any applicant with a disability an interview if they meet the minimum requirements of the role.

Goal 11. Sustainable Cities and Communities

Research

Connecting Culture

<u>Connecting Culture</u> is a project with a consortium led by the University of Southampton, including cultural organisations and child-focused services that researches how Southampton's



Cultural Quarter can become a creative hub enriching the lives of children and young people. The project aims to support young people in creating a Young People's Manifesto and Map reflecting their unique needs to be adopted by the Southampton City Council. The project ran creative consultations with 600 children and young people run by local artists involving activities such as dance, creative writing and visual art.

Zero Flats

Dr Daniel Cid, Associate Professor of Design Studies at Winchester School of Art, has been working with the Arreks Foundation and Leve Projects to design the <u>Zero Flat</u>. Working between design and social science the Zero Flat project creates accommodation for homeless people that avoided feeling like a homeless shelter to users. Designed to the specific needs of those experiencing homelessness and with community integration the Zero Flat provides safe shelter for users.

Publications	Field-Weighted Citation Impact	Number of Citations
399	2.21	6416

Education

<u>The Winchester School</u> of Art is part of the University of Southampton and is one of the leading art and design institutions in the UK. Providing education across the arts the school provides valuable education and training related to our cultural needs and understanding.

Engagement

The University of Southampton was a City Partner of <u>the Southampton bid</u> to become City of Culture 2025 alongside Solent University. The University of Southampton led the Bid's Research Framework, Monitoring and Evaluation programme and provided strategic leadership within the Southampton 2025 Steering Group and Trust Board. Our Turner Sims and John Hansard Gallery venues contributed to the SO2025 Artistic Programme and special events, creative programmes and engagement were led by the University.

Operations

On Highfield Campus we have the University of Southampton's music venue <u>Turner</u> <u>Sims</u>, this venue brings the joy of music into our student and local community with performances from students, emerging artists and musicians of high renown. Turner Sims provides School Concerts and is part of the Southampton Cultural Education Partnership.

Goal 12. Responsible Consumption and Production

Research

Estimating the Value of Space Debris

University of Southampton researchers have developed <u>a method to robustly</u> <u>estimate the mass and value of space</u> <u>debris</u>, this research furthers the possibility that space debris could be removed and



brought into the circular economy, with the debris reused or recycled. The estimated value of the material is between \$570 billion and £1.2 trillion, estimated by weight to be between 5312 and 19124 tonnes of scrap metal.

Helping Ugandan Businesses Demonstrate Sustainability

Professor of Accounting and Sustainability Ven Tauringana has worked with <u>Ugandan</u> <u>organisations to help them produce sustainability reports</u> to a global sustainability standard. Professor Tauringana developed a training programme, Ugandan sustainability reporting quality mark and set up an organisation to continue offering training. Following this work there has been a considerable increase in Ugandan businesses producing international standard sustainability reports, with the number rising from 5 to over 110.

Publications	Field-Weighted Citation Impact	Number of Citations
222	1.78	3301

Education

Our Sustainable Resource Management module provides students with knowledge and skills related to the wide range of sustainability challenges surrounding waste collection, reuse, recycling, minimisation and prevention. The module considers human behaviour in relation to waste management, issues such as single use packaging, recycling rates, legislation relating to waste and the circular economy. The University of Southampton provides a <u>Strategic Operations and Supply Chain</u> <u>Management MSc</u> allowing students to gain develop strategic perspectives on logistics systems and supply chains, explore supply chain sustainability and learn a wide variety of strategies around resilient sourcing.

Engagement

Transitioning to a Circular Economy with Creative Artists

The TRACE (Transitioning to a Circular Economy with Creative Artists) project brought together academics, engineers, members of Winchester School of Art, environmental scientists, artists, musicians, dancers and young people to communicate two key waste crises that of plastic pollution and e-waste. Stunning and thought-provoking artwork and <u>animations</u> were developed to intrigue and educate the public on the issues surrounding plastic consumption and pollution. Musicians, dancers and young people performed creative pieces to inform the public on the e-waste crisis and inspire them to change their consumption and disposal behaviours.

Operations

When providing staff with electrical and electronic equipment all measures are taken to provide reused and refurbished equipment to minimise our environmental impact and reduce WEEE (Waste Electronic and Electrical Equipment).

University coffee shops offer discounted prices to customers who bring a reusable cup for their beverages. Recycling facilities and food waste collection is provided across campuses and within University of Southampton Halls of Residences.

Goal 13. Climate Action

Research

Ancient Greenhouse Emissions Inform Potential Future Climate Scenarios

A team of University of Southampton researchers working in collaboration with University of California Santa Cruz drilled fossil cores along the Atlantic Coastal Plain, using an innovative laser sampling



technique they sampled plankton to analyse to estimate the carbon content of the oceans 56 million years ago in the time period around a massive release of greenhouse gasses. This research provides insight into how the Earth's climate may react in modern times to increasing carbon emissions.

A Typology for Responsibility for Coastal Risk Adaptation

University of Southampton researchers have developed the <u>first disaster risk typology</u> <u>of responsibility for coastal flooding</u>. This typology will assist researchers and decisionmakers in planning and allocating risk management responsibilities for floods and climate-driven hazards.

Publications	Field-Weighted Citation Impact	Number of Citations
446	2.51	10027

Education

Students on our Environmental Science BSc and Integrated Masters programmes have no compulsory overseas fieldtrips, all fieldtrips are within the UK making use of the wide range of learning opportunities there are within the beautiful local New Forest. Our residential field trip takes students to Devon, reducing our transportation emissions considerably from a more remote destination whilst still providing our students with the high quality teaching and field work skills so important to this academic field.

Engagement

MAST EMERGENCY Festival

MAST Mayflower Studios' EMERGENCY Festival had a range of talks by scientists and activists, activities and creative pieces to communicate the severity of the Climate Crisis and other environmental crises. University of Southampton Professor of Applied Environmental Science Ian Williams took part in <u>The Climate Conversation</u> alongside activists and artists to discuss the climate emergency and engage with the local public on the topic.

Operations

Our <u>Sustainability Strategic Plan</u> sets out our carbon reduction targets. The University of Southampton have a target to reduce scope 1 and scope 2 carbon emissions to net zero by 2030 and we are working towards developing a robust approach to measuring scope 3 emissions and set an ambitious reduction target for scope 3.

Goal 14. Life Below Water

Research

The Threat of Shipping to Whale Sharks

University of Southampton Researchers and the Marine Biological Association have identified the threat of <u>industrial</u> <u>shipping to endangered whale sharks</u>, reporting that current estimates of lethal collisions between the two may be



drastically lower than the actual frequency. This research suggests that these lethal collisions may be a key factor in the rapidly declining numbers of whale sharks in our oceans.

Using AI and New Mapping Tools to Protect Seagrass

Engineers and researchers from the University have used Artificial Intelligence and new mapping tools in Studland Bay to survey and <u>assess the health of seagrass in</u> <u>Studland Bay Dorset</u>. Data gathered will be shared with the local community and the University will assist in supporting protecting this vital marine habitat. Seagrass hosts a vast variety of marine species and is effective at carbon storage and protecting against coastal erosion.

Publications	Field-Weighted Citation Impact	Number of Citations
461	1.8	7272

Education

The University of Southampton is a hosting partner for one of the world's top oceanographic institutions the <u>National Oceanography Centre</u>. This provides our postgraduate and undergraduate students the opportunities to study in a world class and cutting-edge facilities, research vessels and a wide range of unique fieldwork opportunities.

Engagement

The Fishing App

Through the University's 'New Things Fund' Doctor Bindi Shah is <u>developing an app</u> to assist sustainable small scale fishing in Kerala in partnership with stakeholders; Indian local government partner Central Institute of Fisheries Technology (CIFT), and artisanal fishers. Fishers and CIFT will benefit from usage of the app, CIFT will be able to monitor real time data on fishing stocks to develop sustainable strategies and policies, fishers will gain real time data on fish catch locations, weather advisories and optimised path planning aiding in the reduction of fuel usage alongside the sustainable management of fish stocks.

Operations

The University's catering service is <u>committed</u> to only sourcing fish from sustainable sources and avoids any species named on the Marine Stewardship Council endangered list. With this commitment laid out in the catering Environment Policy.

Goal 15. Life on Land

Research

Α Qualitative and Ethnographic Approach to Human-Pig Relationships Postgraduate Researcher Kate Goldie is undertaking unique ongoing research exploring the affective relationships between livestock animals and humans. with a particular focus on pigs. Through qualitative and ethnographic methods and engagement with pigs in different contexts such pig sanctuaries, as



households with pet pigs and research laboratories this research aims to explore the ethical repercussions of human-pig relationships and improvements to pig welfare.

iDeer

Professor of Applied Spatial Ecology Felix Eigenbrod is working in collaboration with an interdisciplinary team of University researchers and stakeholders <u>to develop an</u> <u>interactive decision support tool</u> to inform land management plans to reduce deer impacts on natural systems and woodlands. The tool will map risk of woodland and farmland damage by deer, stakeholders will be able to use the tool to develop and manage woodland plans.

Publications	Field-Weighted Citation Impact	Number of Citations
212	2.3	3693

Education

We offer a <u>Biodiversity and Conservation Masters</u> degree programme, students gain applicable skills in monitoring species diversity, population change, abundance and distribution. Students also learn about the socioeconomic context and human causes of various environmental issues and gain an understanding of the legal frameworks of environmental regulation.

Engagement

Nature and Biodiversity Community Hub

<u>The Nature and Biodiversity Community Hub</u> is a community of local groups, university staff and students who have an interest and commitment to protecting nature and biodiversity. The hub hosts events and engagement opportunities locally, with a particular focus on young people and local communities. The hub promotes local collaboration between students, the university and the community to support the local environment.

Operations

Valley Gardens is a botanic garden on our Highfield Campus which is home to a wide variety of plant and invertebrate species, students, staff and visitors have access to this area and can enjoy the bountiful wildlife, complimented by the well-established mental health benefits of regular and unrestricted access to green space.

Goal 16. Peace, Justice and Strong Institutions

Research

Counter-Terrorism and 'Digital Human Trafficking'

An interdisciplinary team including researchers from Sociology, Social Policy and Criminology and the Web Science Institute are working in



collaboration to <u>investigate human trafficking in relation to terrorism offending</u>. This project explores the parameters and consequences of (digital) human trafficking victimisation and the increasing use of online platforms in this area and how it relates to terrorism offending by victims of digital human trafficking.

Rehabilitating Probation

<u>Rehabilitating Probation</u> is a research project aiming to examine the public reform of the UK probation service and its return to the public sector. This three year study aims to examine the implementation of this reform, and the experiences of those involved and impacted, and the consequences of this unification in areas such as staffing and work culture.

Publications	Field-Weighted Citation Impact	Number of Citations
286	2.31	3165

Education

We offer undergraduate and postgraduate industry accredited <u>law courses</u>. We offer opportunities for student shadowing of barristers in their work environment, and we also provide a built courtroom for our law students to have hands on experience to practice presenting cases in this simulated environment.

Engagement

Public Policy Southampton

<u>Public Policy Southampton</u> is our unit dedicated to connecting researchers with policymakers across local, national and international government to support evidence

to policy mechanisms and relationships. Public Policy Southampton keeps researchers informed on current Government Areas of Research Interest, provides funding to projects through The New Things Fund, connects policymakers with researchers to support policy development and develops policy briefs among many other evidence to policy supporting schemes and activities.

Public Policy Southampton provides researchers with opportunities to take placements and secondments within government bodies. The annual Policy Associate Scheme allows Post Doctoral Researchers and Postgraduate researchers to work on short term projects gaining new skills and supporting University projects through providing stakeholder analysis and policy synthesis.

Operations

The University of Southampton has a <u>code of practice</u> to ensure the freedom of speech for staff, students and visitors.

We run <u>a Report + Support</u> service, allowing users to report an act of discrimination, harassment, hate or abuse either anonymously or with their contact details to allow a support worker to contact them.

Goal 17. Partnerships for the Goals

Research

The University of Southampton collaborates with a wide range of institutions across the world. Between 2020 and 2022 84% of our scholarly output was published in collaboration with partner institutions, 62% of our scholarly output was published with international partners, higher than the



national average for publications co-authored with international partners (data source Scopus).

Our field weighted citation impact for all research conducted by the University has increased from the period 2017 - 2019 where it was 1.91 to 1.94 in the period 2020 – 2022. Demonstrating our research is having an improved impact and contributing to the broader global knowledge base.

Publications	Field-Weighted Citation Impact	Number of Citations
7668	2.06	143311

Education

<u>University of Southampton Modules</u> provide students with the opportunity to take an interdisciplinary module to deepen their understanding on a topic outside of their degree course and engage with students outside their own study area to gain new insights and views. Topics generally address current issues globally and are offered in the second year of study.

We engage with the EAUC Alliance for Sustainability Leadership, collaborating on delivery to create a partnership approach to sustainability across the higher education sector. We attend events, contribute workshops at the annual conferences, provide case studies, and network with other collaborators to extend our collaborative approach to sustainability as wide and far as possible.

Engagement

Through Public Policy, The Public Engagement Unit and outreach programmes academics, students and staff engage with individuals and organisations across the world.

Operations

We are a signatory of the SDG Accords, through this we are obligated to report our SDG progress across the University annually.

The purposes of the SDG Accords are "First it is to inspire, celebrate and advance the critical role that education has in delivering the UN Sustainable Development Goals (SDGs) and the value the interlinked objectives brings to governments, business and wider society. Second, the Accord is a commitment made by learning institutions to one another, to do more to deliver the SDGs..."

In Closing

As we reflect on our progress working towards the Sustainable Development Goals and the examples given in this report of the impressive array of work our researchers, staff and students have produced in 2022 we look forward to what will be achieved in 2023.

Compiled by the University of Southampton

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