



**Northumbria  
University**  
NEWCASTLE

# **Northumbria University**

# **Sustainability Annual Report**

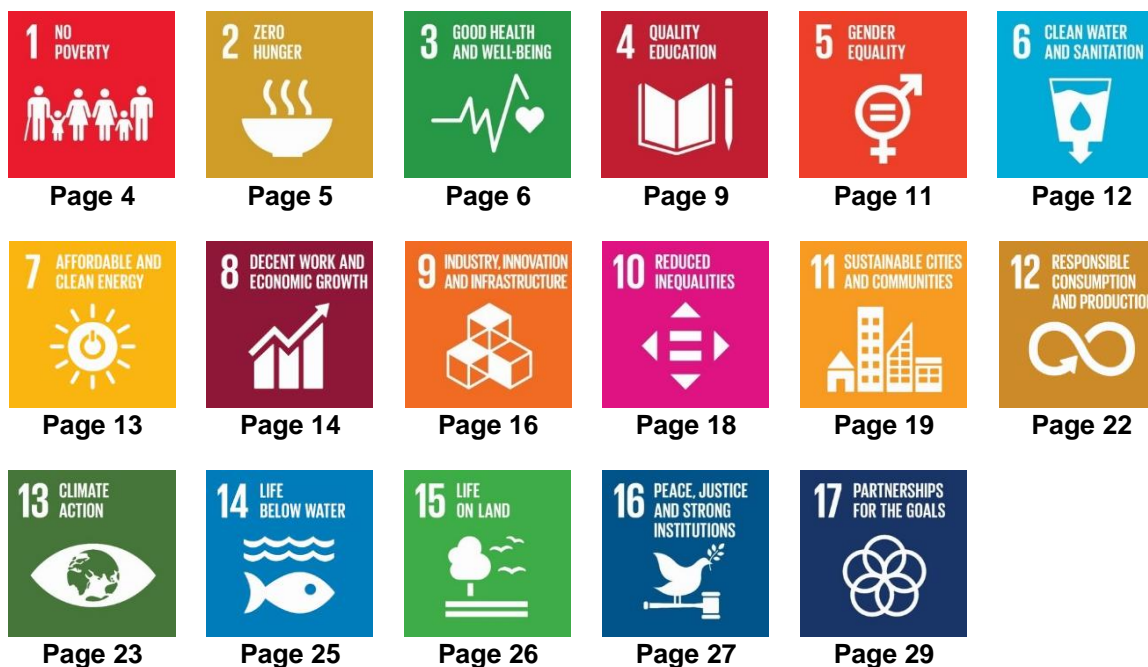
## **2019- 2020**



**#TakeOnTomorrow**

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# Introduction

I am very pleased to introduce this year's Sustainability Annual Report which showcases some fantastic achievements made throughout the year. Being ranked 27<sup>th</sup> in the world within the global THE Impact League demonstrates our truly international outreach, our sustainability commitments, and the positive impact that our research and teaching are having on communities around the world. We were delighted to receive a national Green Gown Award in recognition of our work within the region to Benefit Society by ensuring access to justice for all through the outstanding work of our Student Law Office. It has also been pleasing to far exceed the carbon reduction targets set in 2010 – reducing our carbon emissions by 50% in the past 5 years.

This year, has of course, seen the unprecedented impact of the Covid-19 global pandemic and this report includes just some examples of the numerous ways in which we have responded to the crisis – not only prioritising the wellbeing of our staff and students, but utilising our campus, teaching and our research expertise to understand and address the impacts of the pandemic. From training nursing staff and addressing PPE shortages, to better understanding the virus and its impact on communities around the world, the University has had a huge impact. Our response exemplifies the ethos of Northumbria as well as the high value of our research. Covid-19 challenges of course remain and we will continue to work to manage and address these within our own organisation but also in the communities we work with locally and around the world.

This year has also seen continued global awareness of the urgency with which climate change must be addressed. Within the Extreme Environments theme, our own research in regions such as Antarctica, has informed the global understanding of climate change and potential tipping points relating to sea-level rises. We are, however, also working to find solutions. Examples include: clean and renewable energy sources developed through our new Energy Futures theme; supporting disaster management in communities around the world; and upskilling graduates and partner organisations so that they have the skills needed to support sustainable development. Building on the success of exceeding our own carbon reduction targets for the 2010-20 period, we have developed our next Carbon Management Plan detailing ambitions for the next 10 years and are examining how we can achieve zero carbon by 2040.

This report provides just a snapshot of the work we do to support each of the United Nations' Sustainable Development Goals (SDGs) through our research, teaching, campus and operations. I encourage you to visit our website ([www.northumbria.ac.uk/sustainability](http://www.northumbria.ac.uk/sustainability)) should you want to explore our contribution further or to get in touch. Despite the challenges to come, I am confident that Northumbria will continue to make a real and valuable contribution to the SDGs and look forward to the coming year.

**Professor George Marston**

Pro Vice-Chancellor Research & Innovation, Chair, University Sustainability Management Group





# SDG 1 - No Poverty

Our staff and students work to not only address poverty with local and global communities, but to also address the needs of our own students, especially in the face of the unprecedented challenges that Covid-19 entailed.

## Addressing student financial hardship during Covid-19

The challenge of Covid-19 saw many changes for our students, including switching to online course delivery. We recognised that some students lacked the laptop, computer or internet access required to participate in this new way of studying. We therefore quickly established a new Laptop and Internet Grant Scheme. Money generated through a central fundraising campaign was available to students in the form of packages including £300 to support the purchase of a laptop, or £100 towards internet costs. In total, £53,100 was awarded to 180 students.

This package was in addition to our pre-existing range of financial support for our students, which aims to support those in hardship and to ensure access to education for all, regardless of background or circumstance.

## Fundraising to support local charities

Staff have fundraised over £3300 for local charities in the past year! Events including coffee mornings, dress-down days, Christmas Jumper Days and bake sales raised funds for charities nominated by colleagues, including St Oswald's Hospice, Useful Vision, the Chemo Unit at University Hospital of North Durham, If U Care Share Foundation, and the Chloe & Liam Together Forever Trust.

In addition to financial support, staff also generously donated clothing, food and toys for local schemes including the 'Nightwear before Christmas' appeal, foodbanks, and Christmas presents appeal.

*Thank you so so much to Kerri from Northumbria University who brought us a donation for an incredible £1166.02. This was raised thanks to their Inside Out Day.... Thank you to everyone who donated! It will make a huge difference!*

*(If U Care Share Foundation)*

## Understanding financial hardship within the UK's Armed Forces Community

A partnership with SSAFA – the UK's oldest national tri-service military charity – is building understanding of financial hardship and food poverty within the Armed Forces Community.



Taking place over the next two years, Northumbria's Northern Hub for Veterans and Military Families Research and the Healthy Living Lab at Northumbria University, will work closely with the SSAFA and their volunteer network to collect and analyse anonymised data from serving personnel, veterans and families from all three branches of the Armed Forces community. Findings will inform measures undertaken to better support these communities.

*"Financial hardship and food poverty have always been an issue for some within the Armed Forces community, but the data has never previously been collected and analysed so comprehensively."*

*The evidence-base of this research will enable us to ensure that we, and the various and organisations with whom we work closely, are able to plan and allocate future projects and resources even more effectively than before, something that is very timely given the difficulties many are likely to face as a result of the pandemic and its effect on global and national economies."*

(Lt General Sir Andrew Gregory, Chief Executive of SSAFA)

**Over £1.05 million of financial support was provided by Northumbria to our students in 2019/20.**





# SDG 2 – Zero Hunger

We recognise the risk of hunger within our own communities, but through our research we are also championing and informing UK policy to address hunger in communities across the country.

## Healthy Living Lab – Addressing Food Access across the UK

Northumbria University's Healthy Living Lab has been instrumental in understanding and addressing child hunger and nutrition, and its impact on learning, for several years. They were instrumental in the rollout of the National School Breakfast Programme and this year the Lab's Director, Professor Greta Defeyter, was named as one of **The Big Issue's Top 100 Changemakers** due to the positive impact of her work on society.



The Healthy Living Lab has been at the forefront of research into the impacts of the Covid-19 pandemic on hunger and potential malnutrition across the UK.

Together with *Feeding Britain*, the Healthy Living Lab found that 25% of UK adults struggled to access food they could afford during the Covid-19 pandemic. Nearly one in four adults looking after children have eaten less so they can feed children in their household. Despite strategies including using food banks and restricting the food they eat, many adults are not food secure.

Work undertaken by the Healthy Living Lab also revealed that around half of the children who received free school meal vouchers reported a significant drop in their intake of fruit and vegetables following school closures in March 2020. Just over half of the pupils interviewed reported eating no fresh vegetables across a three-day period following the UK's Covid-19 lockdown, with a similar result regarding fruit. The amount of sugar-sweetened drinks consumed increased four-fold however and skipping one meal day rose from 25% pre-Covid-19 to 35% following lockdown.

Findings from both studies have included strong recommendations for government and the measures needed to urgently address the nutritional and educational challenges faced by thousands of children across the UK.

## Newcastle Food Group

Northumbria University is proud to be part of the Newcastle Food Group – a team of representatives from communities, the public sector and businesses across Newcastle working together to champion sustainable food. As part of the UK Sustainable Food Places Initiative, the group aims to transform food and food culture, as well as recognising the role of food in addressing key economic, environmental and social issues.



The group supported Newcastle City in achieving the Sustainable Food Place Bronze Award in summer 2019! We look forward to continuing to build on this success and to further supporting the Newcastle Food Group not only through our own food-related operations, but also through our research expertise into food access, nutrition, environmental impact and health.

## Northumbria's Student Foodbank

*Student Foodbank*, a new scheme launched through our Students' Union, provides short-term support to Northumbria students facing financial difficulties. The *Student Foodbank* provides them with a basic food parcel to last three days. We believe no student should go hungry, which is why any Northumbria student can use the service. Those who use the service multiple times are identified to ensure that they are getting the right support. Donation points across the University, and a dedicated budget, generate the food contributions required by the scheme.

## Sustainable Food at Northumbria

Our Sustainable Food Policy commits to a wide range of measures to maximise the positive impact of our production and retail of food on campus. This includes sourcing local and seasonal produce, using free range eggs and MSC certified fish and the use of ethically marked products. Together these efforts have supported the retention of our Bronze Food for Life Award.



# SDG 3 – Good Health & Wellbeing

The Covid-19 pandemic required a global response whereby every government, organisation and individual had a role to play in limiting and addressing the virus and its impacts. We are incredibly proud of the numerous contributions made by our staff and students in responding to this global challenge.

## Northumbria University joins national genome sequencing alliance to map spread of COVID-19

Scientists at Northumbria University formed part of a research consortium backed by the UK government to help fight Covid-19. Through a £20 million investment, the Covid-19 Genomics UK Consortium brings together clinicians and scientists using whole-genome sequencing to map how Covid-19 spreads and evolves. The group includes experts from the NHS, Public Health Agencies, Wellcome Sanger Institute and academic institutions including Northumbria University.

Through NU-OMICS, our state-of-the-art DNA sequencing research facility, we are undertaking rapid sequencing of whole genomes of the Covid-19 virus. By looking at the genome of the virus in confirmed cases of Covid-19 patients, we can begin to understand the spread of the virus and monitor changes to its genome regionally and nationally in order to help fight this devastating virus.

## PPE for the North East

Our School of Design and its industry-standard facilities proved to be a valuable resource in addressing the shortage of hospital gowns needed by staff treating Covid-19 patients. Every day between 14<sup>th</sup> April and 12<sup>th</sup> June 2020 our skilled Fashion Design technicians and academics joined Northumbria Healthcare staff and volunteers to produce 1,000 sets of scrubs and just over 3,000 gowns. They also digitised and shared the patterns used to enable manufacturers around the country to also undertake production.

*"We are absolutely delighted to be working in partnership with Northumbria University and would like to thank them for all they are doing. Their innovative approach and can-do attitude has been second to none... we really are a region that sticks together"*

Paul Dunn, Executive Director of Finance, Northumbria Healthcare NHS Foundation Trust

## UK's first ever nursing degree apprentices graduate and join the frontline

The first students to graduate from the UK's first ever Registered Nurse Degree Apprenticeship (RNDA) scheme joined the frontline at Newcastle Hospitals NHS Foundation Trust in the midst of the global pandemic.



The government RNDA scheme enables students to attain graduate registered nurse status through an apprenticeship route for the very first time. The first cohort of students joined our Nursing and Midwifery Council-approved course – a partnership between Northumbria University and the Newcastle upon Tyne Hospitals NHS Foundation Trust in September 2018, and successfully graduated just 18 months later.

The graduates immediately put their skills to use on the frontline of Newcastle's hospitals with many of them assisting directly with the Covid-19 response. The practical experiences provided through their training was vital in equipping them with the confidence and expertise needed to undertake their new duties.

## Free music service to provide self-care support during coronavirus pandemic

The Tees, Esk and Wear Valleys NHS Foundation have joined forces with Northumbria University, the Calm Foundation and music technology company X-System to provide a series of specially designed playlists that can help people to physically relax and manage their mood.

Researchers from our Department of Computer and Information Sciences have explored the impact of music on heart rate and emotional state. They will evaluate the impact that the music on the playlists has on listeners' wellbeing to enable the lists to be finetuned for maximum benefit. The partnership has also enabled the platform to be provided to anyone free of charge via the Recovery College Online.

**Our response to the Covid-19 pandemic is just one example of the many ways in which we are working to support SDG 3 – Good Health & Wellbeing. Our response to this SDG however extends beyond the Covid-19 pandemic, with initiatives including education, research, business engagement and campaigns.**

### **Global accolades for patient safety research**

Research into patient safety across Europe, led by Northumbria University, has received international acclaim. Papers relating to the SLIPPS (Shared Learning from Practice to Improve Patient Safety) project won **Best Symposium** at the 2020 Sigma Theta Tau International Nursing Conference, as well as the 2020 JRN Veronica Bishop **Paper of the Year Award**.



Co-funded by the Erasmus+ Programme, SLIPPS is an innovative education and research project that draws on the real experiences of health and social care students in work placements across Finland, Spain, Italy, Norway and the UK. It seeks to improve European patient safety and education across a range of clinical settings and use students' real-life experiences and reflections as the basis for a range of educational resources provided via an open access virtual learning tool.

### **World Transplant Games 2019**

In August 2019, Northumbria University hosted the World Transplant Games Opening Ceremony. Organised by our inhouse events team along with the Newcastle Gateshead Initiative, the event welcomed 2,500 spectators. We also hosted a number of the Games' events including table tennis and badminton at our multimillion-pound Sport Central facility.



More than 1,500 people from 59 countries around the world participated in the games competing in 16 sporting events across 13 venues in the North East. All the competitors had either received transplants or were from families who have chosen to donate organs.

### **Growth programme for North East health, wellness and social care sectors**

Regional fund management firm *NEL Fund Managers* has joined forces with Northumbria University to set up the new Purposeful Health Growth Accelerator (PHGA). This major new initiative aims to help North East businesses grow or expand into the health, wellness and social care delivery sectors, and will offer practical support, advice and growth capital investment worth more than £1 million in total to up to 200 North East firms.



The programme builds on the many innovations implemented by regional firms in response to the needs and opportunities presented by the COVID-19 pandemic, as well as looking at wider commercial opportunities available within the relevant sectors. Programme participants will be able to access Northumbria University research expertise in wellness, health and social care, as well as a bespoke package of business support from both the University and NEL that will help them prepare for expansion. The PHGA is being backed by the UK Research and Innovation's Research England Development (RED) Fund.

### **Providing health education locally, and internationally**

Each year, around 850 students graduate from Northumbria with a healthcare related degree. We provide multiple health-related programmes including nursing, midwifery, health care management, public health, occupational therapy and social work. These include courses at undergraduate and postgraduate levels as well as a range of CPD and distance learning options. We also work closely with partners around the world to support global health education. This includes our partnership with St Georges University of Grenada, enabling future medics to gain international insight from world leading academic staff.

Our University Strategy places people at its heart, striving for ‘a community that supports the wellbeing of its staff, students and stakeholders’. We consequently have a varied programme of activity and engagement to support staff and student wellbeing.

### Student Wellbeing Activities in 2019/20 included

✓ **Using analytics to support student wellbeing**

A sector changing project using advanced data capture and student facing educational analytics to generate early warning signs for students’ mental health and wellbeing (see SDG 4).

✓ **Neurodiversity Access Project (NAP)**

A five-week project open to any incoming Northumbria student who experiences Specific Learning Difficulties such as dyslexia, dyspraxia, ADHD or Autism. The course helped students transition into university by focusing on executive functioning, social skills, confidence, advocacy, self-regulation, and mental wellbeing management.

✓ **Row Britannia**

A fundraising challenge completed by Northumbria staff, students and alumni to raise funds for Row Britannia and Sport Relief in support of student mental health and wellbeing projects. The challenge was set by The British Inspiration Trust (BRIT) in support of mental health and fitness. Together volunteers had the challenge of rowing 2,020 miles on rowing machines in March 2020.



✓ **Providing student access to ‘Kooth’**

A new online platform offering free, safe and anonymous online counselling and support via mobile, tablet or desktop. All students can also access 24/7 support through our Ask4Help team, student portal and Security.

✓ **In-house Counselling and Mental Health Support Team**

Offering daily counselling and mental health support drop-in sessions, and online guided self-help programmes.

✓ **Wellbeing workshops**

Covering a wide range of topics including social confidence, procrastination and mindfulness.

### Staff Wellbeing Activities in 2019/20 included

✓ **12 Days of Wellbeing**

Kicking off the festive season with free activities, competitions and ‘wellbeing top tips’ covering topics including alcohol awareness, financial concerns and the Employee Assistance Programme. Participation from over 170 staff.

✓ **Flu Jabs**

Over 500 free flu jabs issued to staff ahead of the typical flu season.

✓ **Mental Health Awareness in the Workplace Training**

Delivered by an external provider, the sessions are framed around supporting employers to tackle mental ill health, in conjunction with tailoring the content to Northumbria University’s needs.

✓ **Mental Health Awareness Week (‘Kindness’)**

A range of resources and virtual activities including a kindness video featuring colleagues from across the University, a gratitude journal, five staff wellbeing blogs, a set of kindness E-cards and 14 virtual taking-action sessions on topics such as managing your wellbeing, getting good sleep, and kindness and compassion in the workplace.

✓ **Working from home support and guidance**

Supporting staff with guidance on remote working and management, staying connected and staying well during lockdown.

✓ **Wellbeing blogs**

Colleagues sharing first-hand accounts of remote working and dealing with challenges from honest reflections of work-related stress, to balancing childcare and work demands.

These events were in addition to a wide-range of other resources including training, our Mental Health First aiders scheme and the free 24-hour Employee Assistance Programme.



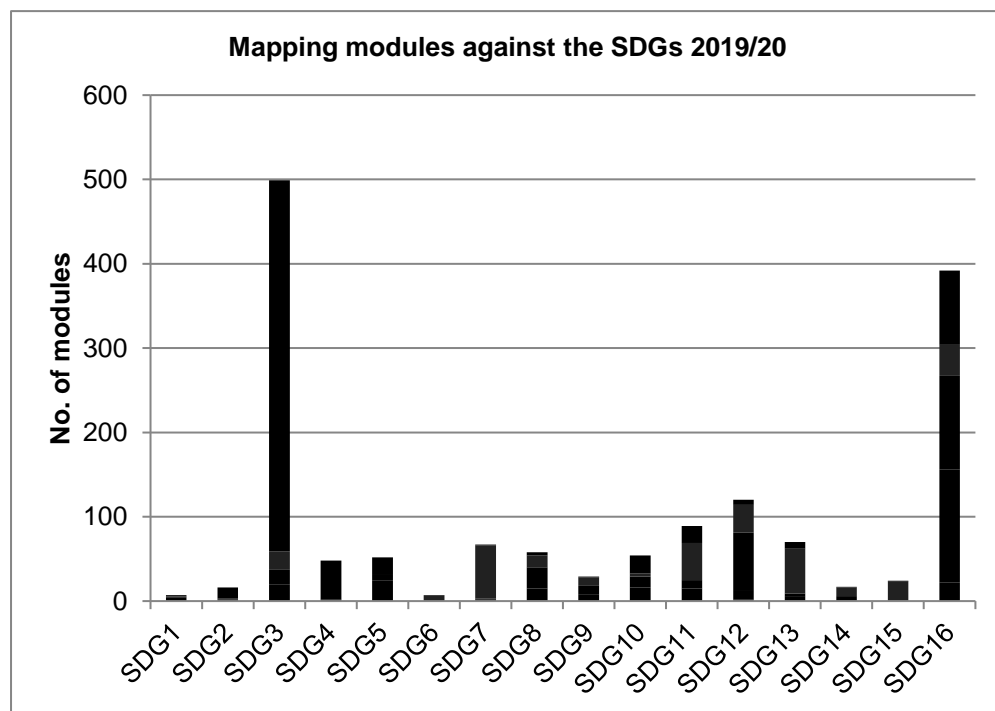


# SDG 4 – Quality Education

We are committed to delivering education for sustainable development and ensure that all our programmes explore world challenges and seek sustainable solutions - from sustainability in fashion, to tackling global pandemics.

## Education for Sustainable Development – Our Commitment

Our University Strategy, supported by our Environmental Sustainability Policy, commits to supporting the UN Sustainable Development Goals through the education we provide. Our programmes explore multiple world challenges from sustainability in fashion to tackling global pandemics. They are all designed against the Programme Framework for Northumbria Awards (PFNAs) which ensure that all graduates are equipped with the skills needed for sustainable development. Such attributes include positively contributing to a diverse and global community and using disciplinary knowledge to identify sustainable solutions to complex problems.



## Sustainability learning for staff, students and the community

We offer a wide range of opportunities for sustainability learning beyond the lecture theatre including events, volunteering and campaigns. In November we launched a new student-staff Climate Change Think Tank aimed at questioning, and finding solutions to, climate-related challenges. Coordinated by our Law School, but welcoming participants from across the University, the Forum's activities included responding to Newcastle City Council's air quality consultation and debating a motion to legally recognise Ecocide.

A new 'Sustainability at Northumbria' online module has introduced staff to the SDGs and ways in which they can support them, supplementing our range of other environmentally focused training courses. The optional, interactive module has been completed by 25% of staff to date with excellent feedback.

We host free public lectures throughout the year featuring industry experts from within the University as well as external guest speakers. Talks in 2019/20 included wildlife trafficking, low carbon air travel, and a talk by Paul Polman KBE, the former Chief Executive of Unilever, exploring how businesses can support the SDGs.

## Delivering global education

Northumbria is working in partnership with education providers around the world to deliver high quality education internationally, which embeds sustainability learning. Our valued partnerships cover locations include Hong Kong, Singapore and Sri Lanka. Degrees offered cover topics including Business & Finance, Biomedical & Biotechnical Sciences, and Design. We were the first UK provider to establish a partnership in Indonesia, establishing a joint Binus-Northumbria Design School. We also deliver Banking, Finance and general Business programmes in Qatar through our relationship with the Qatar Finance and Business Academy (QFBA).

## Embedding ESD internationally

Principles for Responsible Management Education (PRME) is a United Nations-led initiative that aims to raise the profile of sustainability education in business schools around the world. It seeks to ensure all students are equipped with the skills and knowledge needed to deliver a better tomorrow. As a PRME Champion, our Business School acts as an exemplar of best practice to other higher education institutions globally. Dr Alex Hope's engagement work with partners nationally and internationally includes the development and delivery of a new Climate Literacy programme to upskill lecturers, and organisations, who can in turn share their knowledge with students and peers. He is also working on the third Edition of the popular textbook: 'Responsible Business: Management Learning, Competence and Innovation' due for publication in 2021.

## Plugging the national Digital Skills Gap

We are a founding member of the £40 million nationwide Institute of Coding which brings together corporations including Microsoft and IBM, government, higher education and outreach to plug the digital skills gap, bring more people from underrepresented groups into the tech sector, and give UK an edge in the global digital economy. More than 500,000 highly trained computer scientists will be needed by 2022 – three times the number of UK Computer Sciences graduates in the last 10 years. Members of the Institute of Coding will together develop deliver apprenticeship, undergraduate and postgraduate programmes to develop skills for future economies.

## Access and Participation

We are committed to supporting the accessibility of education, and offer several scholarships, bursaries and other financial support packages to students. We participate in the North East Collaborative Outreach Programme (NECOP) and the North East Raising Aspiration Partnership (NERAP) to enhance Higher Education aspiration and attainment in the region. As the leader of the Think Physics collaborative project, we work with partners to inspire children to pursue Science, Technology, Engineering and Maths (STEM) disciplines. We work with 29 partner schools and additional linked schools across five local authorities to reach on average 17,800 young people, 1000 teachers and trainee-teachers, and 1600 parents/carers annually.

## Using analytics to enhance student support

Our new, innovative approach to supporting students uses an Educational Data Mining (EDM) platform to harvest, process and analyse Big Data from the Learning Environment to identify patterns and generate insights. This enables us to focus support, communications and interventions to reward students, and to resolve difficulties, often before they have become too great.

A number of different analytics are used to maximise the student's experience. These include:

- *Learning analytics* – enabling us to target pastoral and wellbeing interventions by reaching out to specific students to assist them in solving problems and navigating institutional systems and processes.
- *Academic analytics* – to understand the key factors of academic success department by department, and consequently making pedagogic or other Learning & teaching interventions.
- *Behavioural data analytics* - to motivate students dealing with academic setbacks.
- *Learner analytics* - equipping students with their own data to encourage better study organisation and promote self-regulated learning.

This was coupled with a new communication strategy in order to engage more personally and closely with each student – from recognising their successes to incentivising activities which may aide their wellbeing.

This approach has not only helped to positively impact student continuation rates, but has also gained excellent student feedback, addressing potential problems before they developed into larger issues with potential impacts on mental health or academic success. We continue to build on and develop this approach to drive forward strategic interventions to maximise the experience of every Northumbria student.

**For more information** on our work to support equality, visit SDG 10 - Reduced Inequalities.



# SDG 5 – Gender Equality

We are committed to equality and are working hard to ensure that Northumbria University is a fair, equal and welcoming place to study and work, as well as using our education, research and partnerships to promote gender equality beyond our own campus.

## Athena SWAN Bronze Award

The Athena Swan Charter is used across the globe to support and transform gender equality within Higher Education. We have held an institutional-level Athena SWAN Bronze award since 2015 and in December 2019 successfully retained the award for a further three years. Bronze awards were also achieved by our Department of Geography & Environmental Sciences, as well as the Faculty of Business & Law. In addition to identifying current challenges and developing comprehensive action plans, new initiatives have included a new, active Women's network offering activities from career or wellbeing support to social meet ups.

## International recognition for NUSTEM

Northumbria University's NUSTEM project gained international recognition in March 2020 when it was selected as one of three finalists in the 7<sup>th</sup> annual Airbus GEDC Diversity Award. Alongside finalist projects from Canada and Italy, the project was recognised for its innovative work in improving diversity in engineering education.



In the UK, under 20% of engineering and technology undergraduates are female. The UK also has the lowest proportion of female engineers in Europe, with the proportion in the North East even lower. Our NUSTEM project aims to address this imbalance by undertaking a radical rethink of university outreach. The initiative, built on robust research, provides sustained, collaborative, inclusive and career-informed interventions with young people from early years onwards, and with their influencers - their families and teachers. These interventions include careers-inspired curriculum-focused workshops and simple, accessible tools such as 'STEM Person of the Week'. NUSTEM now has long-term collaborations with 48 schools in areas of deprivation and has worked with 43,795 children and enabled a further 14,119 interactions with their families and teachers.

## Women in Leadership student scheme

Our Student Union's Women in Leadership programme (WILD) aims to create a network where female students feel confident in their abilities, empowered and supported to undertake leadership opportunities within the Students' Union and confident in their abilities. It's an opportunity open to all female and non-binary students at Northumbria, helping them to identify and develop key skills that will their future goals and plans.



WILD offers various activities including WILD training (a four-hour programme delivered both in person and online) and workshops on topics including public speaking. We look forward to our upcoming WILD conference in 2020/21 (unfortunately rescheduled from 2019/20 due to Covid-19). The group also included an online Facebook community comprising over 250 students to date.

## The Northern Women in Leadership Conference

In summer 2019, we developed and hosted the first Northern Women in Leadership conference. Supported by the Entrepreneurs Forum and the Federation for Small Businesses, the conference brought together dozens of women from private and public sector organisations around the north to explore how women in leadership roles can, and will, help shape the future of the region.



For more information on Equality and Inclusivity at Northumbria, including our Gender Pay Report, visit [www.northumbria.ac.uk/about-us/equality-and-diversity](http://www.northumbria.ac.uk/about-us/equality-and-diversity)



# SDG 6 – Clean Water & Sanitation

We want to minimise the amount of water we use on our campus, minimise pollution risk and support the global target of ensuring that everyone around the world has access to clean water and sanitation.

## Supporting Transboundary Water Cooperation (SDG 6.5.2)

Professor Alistair Rieu-Clarke has played a key role in the implementation of the U- Water Integrated Monitoring Initiative for SDG 6 and the UN-Water Task Force, in relation to transboundary cooperation. This initiative brings together all SDG 6 custodian agencies, including UN Environment, UNESCO and WHO, and is responsible for monitoring progress across all SDG 6 targets and indicators.



In the first reporting cycle, Prof. Rieu-Clarke advised governments on how to complete the questionnaire for SDG 6.5.2. In preparation for the second reporting cycle, he has been working with the United Nations Economic Commission for Europe (UNECE), and with around 40 governments from across the world, to develop a guide to reporting in order to enhance report quality. He has also assisted with a series of webinars to support the second cycle of reporting which have attracted over 400 civil servants from across the world.

## Water Governance in the Mekong Delta:

Delta environments provide food, livelihoods and homes to millions of people around the world. Socio-economic change, major infrastructural interventions and manifestations of climate change can result in dramatic changes to these environments, including flooding from changing weather and impacts arising from the building of large hydropower dams. Research undertaken at Northumbria through our Centre for International Development, focuses on such challenges, especially within South East Asia. It aims to develop more effective flood planning and response by bridging local and scientific knowledge and integrating modelling and social data. It also looks at impacts of dam developments on marginalised communities and examines how decision-making policy can address this.

## Life Water

Our campus catering provider, Chartwells, has a partnership with Life Water to support communities in need of clean drinking water by funding wells through Life Water purchases. Every Life Water drink funds clean water projects across the globe, through charity partner, drop4drop.org, as part of their joint mission to alleviate the World Water Crisis. Purchases of Life Water from Northumbria University enabled the development of a well in Mandemvaripalli in Andhra Pradesh, India.



*“Before building this well, I was feeling too tired to get water, because I was going on foot for an hour to get water for our domestic purpose. My children are too young, my husband goes for his business, there is none to get water except me. Now I need not go out long for water. I am able to get water near to my home. Now we, the women in our entire village feel safe from exposure to outer risk. Thanks to the sponsors for helping us with the provision of the safe drinking water in our living premises where we now feel safe”.*

(Mrs. Mahaboob Bee, 28 years)

## Accessible drinking water

We have a plentiful distribution of water fountains across our campus providing free drinking water to staff, student and visitors and to encourage bottle refills and reduce the use of single-use plastic bottles. Reusable bottles can be purchased from our outlets on campus. Publicly accessible water fountains have been added to the national Refill app.





# SDG 7 – Affordable & Clean Energy

In addition to minimising our own energy usage and supporting cleaner energy provision and use, we have a strong reputation for our outstanding research and education in the field of future energy.

## Energy Futures – expertise and training for clean energy

Our recently launched Energy Futures programme aims to tackle the challenges associated with achieving net zero emissions. Recognising that this challenge is transcends disciplines, Energy Futures brings together experts from across the University to benefit multiple external partners. Expertise include energy materials, batteries, electric vehicles, heat, low carbon buildings, business models and policy.

Energy Futures leverages our position as project lead for the Engineering and Physical Sciences Research Council's (EPSRC) Centre for Doctoral Training in Renewable Energy Northeast Universities (ReNU). This £5.4 million programme will train the next generation of innovators in renewable energy. ReNU includes a portfolio of 27 companies including 12 SMEs, many of which are local businesses.

We are also a founding partner (together with Newcastle and Durham Universities) of the EPSRC North East Centre for Energy Materials. This is one of six UK centres funded by the Industrial Strategy Challenge Fund to drive Clean Growth.

## Clean energy on campus

We are home to the UK's first building-integrated photovoltaic installation – our Northumberland Building array was installed in 1995 and is still fully operational. We have since installed multiple additional arrays totalling over 1,300 panels on campus, generating 220,000 kWh annually – the equivalent of the annual electricity use of 55 UK homes and saving 78 tonnes of CO<sub>2</sub> per year.

Saving **78**  
tonnes of CO<sub>2</sub>  
through  
renewable  
technologies

Our purchased electricity is green tariff and, although we do not currently have direct investments, our Ethical Investment Declaration notes that we will not invest in fossil fuel companies. For more information on our carbon reductions, see the section for SDG 13 – Climate Action.

## North East Energy Catalyst – economic growth through low carbon

October 2019 saw the launch of a ground-breaking new partnership which aims to drive economic growth in the North East through clean energy innovation.

The North East Energy Catalyst brings together Northumbria University with partners from the public sector, government bodies and businesses who are already developing and delivering important products and services within the energy sector. The Catalyst aims to coordinate these activities to jointly develop and showcase solutions to global energy challenges, and to drive decarbonisation and economic growth in the region.

Facilitated by the North East Local Enterprise Partnership (LEP), the Catalyst will support their new Energy for Growth strategy, which aims to drive economic growth in the North East while also bringing sector partners together to deliver on national energy strategy.

*“Northumbria University is delighted to be part of this ground-breaking partnership, to work with cross-sector partners and bring our expertise in this field to the fore.”*

(Dr Neil Beattie, Associate Professor of Physics and Electrical Engineering,  
Northumbria University)

## NetZero Taskforce – targeting zero carbon for Newcastle city

We are a key member of Newcastle City Council's NetZero Taskforce which aims to deliver the Council's ambition of zero carbon emissions by 2030. The group, comprising members for local Council, hospitals and universities includes experts in implementing carbon reduction measures. It also enables the partnership working that will be required if zero emissions are to be achieved.



# SDG 8 – Decent Work & Economic Growth

We are within the top 15 UK universities for the number of graduates in highly skilled employment (Graduate Outcome survey) and rank 2<sup>nd</sup> in the UK for enterprise, based on the turnover of business start-ups.

## Supporting students and SMEs through Covid-19's economic challenges

Businesses working in the creative and cultural sectors have been among the hardest hit by the Covid-19 pandemic, with many smaller organisations facing a massive loss of revenue.

The impact of the pandemic is also being felt by students and recent graduates, with paid employment and work placement opportunities severely limited by the impact of the virus on businesses.



Our Northumbria Santander Universities Internships Scheme is well-placed to address this challenge. The scheme boosts the employability of current students and recent graduates by giving them the opportunity to gain real world paid experience through a short internship. It also benefits SMEs by providing access to students' skills and experiences at no cost, with the two-week internships paid for by Northumbria University through funding from Santander Universities. The scheme specifically targets supporting SMEs with 250 employees or less, an annual turnover of under £50 million and registered in the UK.

*"The internship gave me the opportunity to work in a professional environment, at a time when many employers wouldn't consider taking me because I was a new graduate... there is nothing else out there that will help you get your feet through the professional doors so quickly"*

(Northumbria Animation MA Graduate and Internship participant).

We have been working in partnership with Santander since 2015, with the banking group committing almost half a million pounds to fund student internships, work placements, overseas study and scholarship. This complements the work of our Business Clinic which supports start-ups and local businesses through free student consultancy projects on topics including feasibility studies, human resources, IT systems and strategic reviews.

## Innovate Northumbria: Incubator

Our brand new co-working space, *Innovate Northumbria: Incubator* offers a professional space from which students and graduates can establish and run new business enterprises. In addition to being a physical space for new entrepreneurs, the Incubator provides a supportive environment in which student and graduate entrepreneurs can seek to build their ideas and collaborate with other like-minded individuals.



The service is open to all current registered students, as well as graduates of the last 5 years. It offers a range of enterprise activity including providing guidance to academic staff on incorporating enterprise into curriculum, developing student enterprise skills through the curriculum, and delivering enterprise weekends and bootcamps. We provide direct 1-2-1 support, as well as workshops, to individuals as they seek to develop their ideas for businesses.

We continue to offer support once a business is established – typically providing support for the first three years of trading activity. The emphasis is not simply on early stage pre-start/start-up support; the aim is to provide support which will assist student/graduate entrepreneurs in the creation of sustainable self-employment/business start-up options, which will secure long-term employment for themselves and others.

**Over the last decade the University has supported the creation of around 300 businesses which now employ more than 1,000 people and turn over £84 million per year.**

**Our work in support of SDG 8 does not only focus on our students and local enterprise. We are also working to support decent work and economic sustainability in communities around the world.**

### **Supporting small businesses and microbusinesses**

Newcastle Business School, at Northumbria University, is working with the Small Business Charter to deliver a specialised government funded programme for leaders of small businesses across the North East and North West region to survive and thrive following Covid-19 and prepare for any future disruption.



The free Small Business Leadership Programme (SBLP) includes a webinar series spanning 10 weeks and access to experts from Northumbria. Participants will develop strategic leadership skills and the confidence to make informed decisions to boost business performance.

In addition, our Business School has been awarded funding to support 50 microbusinesses – an often-overlooked section of the economy which employs over 4 million people and contributes £533bn to the UK economy. The Leading to Grow Programme will be offered at no cost to microbusinesses (up to 9 staff) across England and includes workshops exploring how to utilise technologies to improve efficiency and profitability, and to potentially scale up.

The funding has been made available through the government's £9m Business Basics Programme run by the Department of Business, Energy and Industrial Strategy (BEIS) and Innovate UK.

Newcastle Business School was accredited by the Small Business Charter (SBC) in 2015, a national accreditation awarded by small businesses to business schools who excel in supporting SMEs and the local economy.

*"Northumbria University's role on the Small Business Leadership Programme is another example of how our universities are strengthening the region's economic recovery and ensuring North East businesses have the skills they need to not only survive this current crisis but achieve growth in the future too."*

(Helen Golightly, Chief Executive of the North East LEP)

### **Modern Slavery Conference**

Northumbria organised and hosted an international conference on 'Human Trafficking: Criminal Law and Evidence' to explore criminal law, human rights, and issues connected to the use of forensic science in human trafficking. It also debated current methods used in the identification of perpetrators and victims of human trafficking and modern-day slavery.



Academics were joined by renowned experts including Philippa Southwell [pictured] a leading lawyer defending victims of trafficking at all levels of the criminal justice system, Pam Bowen, Operations Director of the Crown Prosecution Service and prosecuting Barrister Caroline Haughey QC.

*"Without these conversations we can't look at the areas where we can improve, or discuss the research needed to advance change."*

*(Philippa Southwell, Managing Director of the Human Trafficking and Modern Slavery Expert Directory)*

### **Employability of refugees in Uganda**

Experts from our Centre for International development are part of the Refugee Youth Volunteering Uganda (RYVU) international research project. This explores how voluntary labour practiced by young refugees in Uganda impacts on their skills, employability and the inequalities they experience.

There are currently around 1.2 million individuals seeking refuge in Uganda, the majority of who are children. Developing their skills and employability is not only vital for their own prospects but also for the long-term stability of their host country.

By understanding if and how volunteering by young refugees can aide skill development, employability and reducing inequalities, the project can assist organisations working with young refugees in Uganda and potentially elsewhere.



# SDG 9 – Industry, Innovation & Infrastructure

Our expertise and work with industry partners is driving innovation across the region and supporting sustainability economies. This drive for innovation is also instilled in our students – a new generation of sustainable, innovative thinkers and designers.

## Northern Accelerator

Northern Accelerator is an exciting collaboration between Northumbria and three other North East universities which helps to accelerate the translation of world-class research into commercial opportunities for the North East. It brings together academics and business leaders, with a host of funding and support, to form sustainable businesses that create more and better jobs.

This year the Accelerator launched a new £1.7m seed investment fund that aims to grow the region's economy by building on its strong record of creating innovative spin-out businesses. Managed by Northstar Ventures, the Seed Investment Fund will make significant investments in businesses with the best commercial ideas and growth potential in the healthcare, clean technology or data sectors.

Backed by funding from Research England's Connecting Capability Fund and the European Regional Development Fund, Northern Accelerator has transformed the university innovation eco-system to showcase the best technologies and commercial ideas from North East universities. The number of spin-out businesses from Northern Accelerator has more than doubled over the past year and increased fivefold since the partnership began in 2016. To date the partnership has placed 23 CEOs in spinouts, created 28 businesses and allocated £1.8m worth of pre-incorporation funding to help 45 research projects move closer to commercialisation.

*"I very much welcome Northern Accelerator's launch of a Seed Investment Fund. This is an important step along the way for a vital development in the North East that can increase commercialisation of university research and address the Government's levelling up agenda. It demonstrates that universities are addressing key challenges in the Government's Research & Development roadmap and in Covid-19 economic recovery."*

(Alice Frost, Director of Knowledge Exchange at Research England)

## Award-winning student innovation

Two of Northumbria's Design for Industry students have won prestigious prizes at the Royal Society of Art's (RSA) Student Design Awards in recognition of their designs to tackle pressing social and environmental issues.

Aditya Kujal's 'Incube' design of a low-cost, flatpack, incubator that can save the lives of new-borns in refugee camps without the need for electricity, responded to the 'Dignity in Displacement' brief, sponsored by global technology provider NCR Corporation. Jessica Williams won the AI 100 Award, sponsored by Phillips, for her prevention and chronic care management design 'Nip It In The Boob'. Her design is an AI driven, interactive service which allows women to record monthly assessments in order to enable early detection of breast cancer at home.



*"Finding out I won was incredible, the whole experience has really highlighted what area of design I really want to pursue a career in, and really design for good... I really couldn't have completed this project without the support from the workshop technicians and my tutors at Northumbria."* (Jessica Williams)

The Student Design Awards from the RSA is the longest running competition of its kind in the world. Past winners of the accolade include former Nike head of innovation Richard Clarke and designer of the first laptop Bill Moggridge.

*"[Our] Design for Industry course has a remarkable track record in the RSA competition with many wins in previous years. This...reflects the way in which we encourage students to tackle complex issues with design proposals which are conceptually original yet grounded in real-world insights. Jess and Adi's deserved success this year. demonstrates why our graduates are so sought-after."*

(Anthony Forsyth, Senior Lecturer at Northumbria University's School of Design)



## Rapid new design to protect NHS workers

Newcastle, Northumbria and Sunderland universities worked together in May 2020 to design a new visor which could be mass produced in response to Covid-19. The new 'Hannan snap visor' can be produced using die cutting technology, rather than laser cutting, so can be produced more cost effectively than previous designs.



Designers including Simon Scott-Harden from Northumbria's School of Design together redesigned previous visor designs to make it easier to mass produce. The new 'Hannan visor' is a low-cost full-face visor designed for single sessional use. It can be manufactured from easily sourced standard plastics. The parts come flat-packed and can be sterilised then assembled in one to two minutes. The head strap is fully adjustable and gives the user the ability to wear full Personal Protective Equipment (PPE) during use.

The design has been made freely available through Open Source Design, so that anyone, anywhere, with the relevant facilities can download it and use it to make the full-face visor. It is estimated that up to 2,000 visors an hour could be made using the new design.

*"Taking a product to market can often take years but we managed to design, develop, test and take it into production within a few days... The whole team that has worked on the project has been incredible, there has been a real sense of comradeship, everybody has come together for a common cause."*  
(Simon Scott-Harden)

## Multiple Perspective Problem Framing (MPPF)

Academics in our Design School are driving innovation through their Multiple Perspective Problem Framing (MPPF) concept and methodology. The approach enables researchers to support and guide businesses to develop, exploit and protect their 'know how' by using a range of tools to interpret new forms of value. To date, our Design School has applied the MPPF method with around 80 businesses and local authorities driving forward innovation and achieving economic and social benefit.

## IC3 – The International Centre for Connected Construction

Led by Northumbria University, the IC3 consortium includes partners from public and private sector organisations from across the North East. The Centre drives transformation in the global construction market through digital technologies and education. It aims to move the industry away from the 'lowest cost' approach, and to instead ensure social, economic and environmental lifetime value, as well as ensuring safety following sector recommendations issued in the post-Grenfell Hackitt Review. The centre ultimately wants to ensure buildings become sustainable, healthy and safe places to live and work.

In summer 2020, IC3 was one of just 17 projects from around the country UN Water Integrated Monitoring Initiative to be awarded £50,000 in seed corn funding in order to prepare a detailed bid for up to £50 million from UK Research and Innovation's flagship Strength in Places Fund.

IC3 plans to work with partners across the construction ecosystem over the next five years to bring to life 15 demonstrator projects that incorporate and exemplify the digital technologies and processes developed through IC3. These will encompass a range of building projects from tourism and leisure, to social housing and hospitals and infrastructure. Alongside this, IC3 will provide innovation support to around 100 businesses in its first three years and will work to create up to 20 new businesses in the same period, helping to develop new products, services, processes, and spinouts.

The consortium will also lead on collaborative research projects between industry and academia and will work towards reforming and revitalising education for construction, through the creation of new programmes that will upskill the existing workforce and inspire the next generation.

*"The scale of activity planned by IC3 will place the region at the forefront of excellence for digital construction with global impact. We are delighted to play a leading role in this consortium, which brings together some of the region's foremost organisations. IC3 will use innovation, research and development to open up global market opportunities and ultimately bring jobs and investment to the North East"*

(Professor Andrew Wathey CBE, Vice-Chancellor and Chief Executive of Northumbria University)



# SDG 10 – Reduced Inequalities

At Northumbria University we are committed to fostering a culture where diversity is valued and encouraged, where we advance equality of opportunity, and all colleagues and students feel respected.

## The Race Equality Charter

Northumbria has signed up as a member of the Race Equality Charter. The Charter aims to improve the representation, progression and success of BAME staff and students within higher education. It provides a framework for the University to identify and self-reflect on institutional and cultural barriers standing in the way of colleagues and students from any minority ethnic background.

By becoming a member of the Race Equality Charter, we are committing to the five principles that underpin the Charter which include agreeing that race inequalities are a significant issue in higher education, developing solutions to racial inequalities and noting that all individuals have multiple identities so should not be viewed as part of one homogenous group. We must ensure we have a culture in which our staff and students feel safe and supported to discuss issues pertaining to race and race inequality and know that University Executive will learn from those conversations. We will then form an action plan.

We will first undertake a comprehensive self-assessment of race equality across Northumbria and will then develop solutions to the issues we identify to help realise the diverse and inclusive institutional culture that we aspire to.

## VC Diversity & Inclusion Fund

The VC Diversity and Inclusion Fund supports our strategic commitment to Equality, Diversity & Inclusion (ED&I). It is designed to provide funding for ED&I initiatives and activity that will contribute to a culture of diversity and inclusion across the University. It offers internal funding for projects supporting this agenda. This year, the fund provided a total of £54,000 to nineteen projects including a leadership and mentoring programme for black Northumbria University students, a LGBTQ\* inclusion project, and a guest speakers programme.

## EU Citizens in UK communities

A new survey, launched in December 2019, explored the process that EU, EEA and Swiss citizens living in the UK must go through to apply for 'settled status' and the impact this is having on them. The survey was written by Northumbria's Professor Tanja Bueltmann and the non-governmental organisation the3million, which represents the rights of more than 3 million EU citizens at home in the UK. It received over 3,000 responses making it the largest survey of the EU Settlement Scheme to date.



The findings published in January 2020 detailed the negative impact that BREXIT discussions and the 'settled status' process has had on the sense of belonging of many EU Citizens resident in the UK. Professor Bueltmann explains: "That such feelings developed is not surprising given the narrative that has been established since 2016: that EU/EEA and Swiss citizens are a burden to the UK and cause harm by taking benefits, jobs or housing. Evidence documents clearly that this is not the case, and the COVID19 crisis shows us clearer than perhaps ever before how much the UK needs immigrants who have chosen to make their home here."

Following the survey, citizens' rights campaigners carried out a tour of the UK's four nations to meet community leaders and emphasise the role EU citizens play in UK life. The 'This Is Our Home Tour' visited Bristol, Belfast, Edinburgh and Cardiff, and included meetings with local councils, the Scottish Government's immigration minister and public information sessions, as well as meetings with the3million grassroots members.

**For further information** on Equality, Diversity and Inclusivity at Northumbria view our Equality & Diversity Policies and Reports or view SDG4 and SDG 5.



# SDG 11 – Sustainable Cities

As an urban university we are working to reduce the environmental footprint of our campus, but our staff and students are also helping to create thriving and culturally rich communities both locally and around the world.

## Celebrating the Best Student Neighbours

The Best Neighbour on Campus (BNOC) awards celebrate the 50,000 students who live in Newcastle and the positive contribution they make to the city. The judging panel includes residents, local councillors and representatives from both universities.



This year's awards recognised several ways in which students had made a difference in their communities when the Covid-19 pandemic hit. Winners from Northumbria University included: Md Mominul Hamid who delivered more than 700 food parcels to vulnerable asylum seekers, migrants and others across the West End of Newcastle; Faheem Malik from the Northumbria University Islamic Society who organised Ramadan iftar meals for Muslim students; and a household of Northumbria and Newcastle University students who helped elderly residents with shopping and support especially during the Covid-19 outbreak.

*"Covid-19...has impacted us all as individuals and as a community... it is pleasantly surprising how the little acts of kindness of our neighbours, remind us of the goodness of people at this difficult time."*

(Mr Reinhold Stockle, Jesmond resident)

*"Residents are often unaware of the fantastic contribution which students at both of our universities make to the wider communities in which they live... At this very difficult time it is especially encouraging to see that so many of them have gone well over and above what is expected of them in order to support others in the community."*

(Jeannie Davison, Jesmond Residents' Association and BNOC Judge)

## Homes for the Future

The ways that homes are designed and built in the future could be completely transformed, thanks to a new partnership between Northumbria University and the Ministry of Building Innovation and Education (MOBIE) – the charity established and run by renowned architect, TV presenter and campaigner George Clarke.



The new **MOBIE Northumbria Homes for the Future Innovation Centre** will help businesses involved in the design and delivery of homes access the latest in research and innovation at Northumbria University. It will investigate new methods of construction, design, offsite manufacture, digital competencies and materials and will provide greater quality control, using the latest technologies, all while ensuring the needs of residents and communities are met.

Over the next three years, Northumbria will offer 15 co-funded PhD studentships to work with industry partners through the centre. Northumbria experts will support business partners to develop a bespoke research project specific to their business and will then appoint a PhD student exclusively for each project. This not only support the business but also equips students with vital knowledge, skills and business acumen, creating a new generation to advance the homes of the future.

*"One of the best ways that we can address the current housing crisis is by implementing digital technologies to build next generation homes quicker, at a lower cost and with less environmental impact... By partnering with Northumbria University and appointing doctoral students to work with the businesses, we can ensure we are passing on the very latest in research and thinking into the building sector to transform the way it works."*

(George Clarke)

## Urban Citizens Project wins Newton Prize 2019

A project between academics from Northumbria University and the Institute of Software Chinese Academy of Sciences was a winner of the Newton Prize 2019 - an annual £1 million fund developed to showcase how UK science and innovation partnerships are helping to solve global development challenges.

The UK-China partnership project addresses the global challenge of urban development as cities expand and populations grow older. It explores how big data and service design principles can be applied to urban development and improve quality of life for groups which are often marginalised. Over 40 early career researchers from the UK and China were involved in the project, which is helping elderly, and often poor, people to remain active in the community. It has led to improved transportation services, and better access and suitability of services for the elderly in China.

## Professor champions Northern voices at think tank conference

Northumbria University's Professor Katy Shaw attended the Institute for Public Policy Research (IPPR) State of the North conference in January this year in order to discuss the impact culture and literature can play in addressing UK regional inequalities. The event analysed the root cause of many of the UK's current socio-economic problems through conversations about divisions and connections between different regions, and about the potential of radical Mayors.

As a Professor of Contemporary Writings at Northumbria University, Katy Shaw has researched how northern and other marginalised voices can achieve better representation within mainstream UK publishing. As a speaker on the panel discussion entitled 'Question Time North: the potential of Mayors', Shaw gave her perspective on regional inequalities in the North and how northern leadership positions could be more inclusive and diverse.

*"The role of arts, culture and literacy are often overlooked in discussions about future policing and planning, but these areas of expertise define the proud history of the North and are vital to shaping its future. "The IPPR State of the North convention [brings] together a range of leading thinkers to discuss how we can sculpt and define a twenty-first century North that works for everyone."*

(Professor Katie Shaw)

## Continents connected through new cultural collaboration

Cultural and educational links between the UK and China have been strengthened following a new partnership between Northumbria, Yunnan Provincial Museum and Yunnan Art Gallery (located in South West China).



The three organisations will establish new research collaborations, as well as artist and collection exchange programmes to support academics and students in both cities. They will establish The International Research Centre for History and Culture of Nanzhao & Dali Kingdoms, to bring together art experts from both countries to carry out research into important historical artefacts from the Yunnan region.

Artwork from both the Northumbria University and Yunnan Provincial Museum collections will be shared between the two countries. A new exchange programme will focus on contemporary Chinese art and artists and will include a reciprocal artist in residence programme, joint exhibitions in Newcastle and Kunming, as well as collaborations with other UK museums and galleries.

The partnership is supported by Northumbria alumnus Wee Teng Woon through his family foundation, the Woon Brothers Foundation. The Foundation actively supports art prizes, scholarships and educational opportunities in the UK and overseas, and promotes the conservation, research and exhibition of cultural artefacts, for a better understanding and appreciation of the art of humanity.

## A Sustainable Campus

We are working to reduce the environmental footprint of our campus. Since 2015 we have reduced our carbon emissions by 50% with further reductions in utilities:

- Electricity use by 30%
- Gas use by 21%
- Water use by 32%

**For more information** on the environmental performance of our campus, visit the sections on SDG 7, SDG 13 or SDG 15. You can also view our Annual Carbon Update online.



**We are committed to encouraging and supporting our staff, students and visitors to choose sustainable modes of travel to and from the University in order to minimise environmental impact, as well as to reduce congestion, air pollution and to support healthy lifestyles.**

We have multiple measures in place to encourage and support active travel – from cycle facilities to training and events. Some key initiatives from 2019/20 include:

### **Get Active Staff Campaign 2020**

The *Get Active – Let's Step Challenge 2020* was developed by our Wellbeing Team as a way of encouraging our staff to try and achieve 10,000 steps a day for a duration of 10 weeks. Participants formed teams of up to 10 people with each team collating their combined weekly steps to submit to the Wellbeing team.

Kicking off in January 2020, the challenge ran through until March and had over 380 participants. On completing the challenge, colleagues were able to keep their step trackers as a reward for their efforts but also to keep the momentum going.

The campaign not only supported wellbeing and team spirit but was also key to encouraging staff to reflect on their commuting behaviours and to accommodate healthier and more environmentally sustainable options wherever possible.

### **100 free bikes for our students**

We have over 1,000 cycle spaces across our campuses and our Cycle 2 Campus programme offers staff and student cyclists at Northumbria a wide range of resources including monthly free Dr Bike cycle maintenance checks, the Bicycle User Group email list, cycle stores, lockers and showers. We have also delivered a series of cycle tours, with support from Newcastle City Council, to help staff and students build their confidence on their bike in and around the city.

Our Accommodation team have also worked to encourage cycling amongst students living in our Halls. In 2018/19, we offered current and prospective students living at our Trinity Square accommodation a free mountain bike and lock to collect on arrival. We purchased 29 bikes and locks and repeated the scheme in 2019/20, extending the scheme to also include our Winn accommodation, resulting in buying a further 74 bikes and locks. On completion of the academic year students can keep their bike, in order to encourage them to maintain sustainable commuting and travel behaviours.

### **Travel Survey and Plan**

We undertake a comprehensive travel survey every two years, from which we determine our progress towards our 2023 targets and identify actions to further support sustainable commuter travel. Our targets are set for each campus due to the differing attributes, and travel options available, at each campus.

We completed our most recent survey in March 2020. Despite the pressures on staff and students at this time, we achieved over 1,400 responses. The results showed several targets had already been achieved. Travel by car alone has reduced in all instances except for staff at Coach Lane, where minimal change has been seen. Improvements have largely been made through increased use of public transport and/or walking. Carbon emissions arising from staff and student commute has also improved with an estimated reduction of 16% since 2018.

Campus	Group	Travelling by Car Alone 2018 Result	Travelling by Car Alone 2020 Result	Travelling by Car Alone 2023 Target
City Campus	Staff	27%	22%	24%
City Campus	Students	8%	5%	7%
Coach Lane Campus	Staff	63%	64%	59%
Coach Lane Campus	Students	31%	25%	29%

The long-term impact that Covid-19 will have on travel behaviours is largely unknown – increased home working could reduce emissions, but the proportion of commuters using public transport might drop dramatically. We will monitor the impact of Covid-19 on staff and student travel as well as working to reduce the need for travel and to support sustainable travel options, in order to achieve our 2022 Sustainable Travel targets.

**Further information** can be found in our Sustainable Travel Plan available online and updates on our environmental targets can be found in **Appendix 1**.



# SDG 12 – Responsible Consumption

We are building staff and student awareness of responsible consumption, not only to impact their day-to-day behaviours, but to develop graduates who are the responsible innovators of the future. This is echoed in the work we do with partners beyond the University.

## Responsible Consumption Campaign

Our Responsible Consumption Campaign in January 2020 encouraged staff and students to consider the social and environmental impacts of the items they buy. It explored the complexities and challenges associated with consuming responsibly, such as 'Can fashion be sustainable?' and 'Is all plastic bad?'.

Supported by our School of Design, the campaign launched with an open lecture exploring what 'Responsible Consumption' might look like, followed by a range of events including film showings and discussions, a guest lecture from ethical clothing company 'Lucy & Yak', and a Responsible Consumption Instagram competition. On-campus second-hand-clothes sales supported circular economy principles and raised funds for the British Heart Foundation.

Staff volunteers took on Responsible Consumption challenges and shared their experiences and tips via a series of blogs. These included reducing food waste, avoiding fast fashion, eliminating single-use plastic and switching to a low-meat diet. Colleagues were able to identify with their peers and try out top tips.

*"Just wanted to say that I've just read your blog and I really really liked it... I've been meaning to buy beeswax wraps for ages but have never got round to it, so I've just ordered some while I'm sat at my PC because of you mentioning them!"*

(Email from a staff member to the staff author of the plastic-free blog).



## Sustainable catering for all

Our catering partner Chartwells launched a new vegan range in our cafes this year to support sustainable and healthy customer choices. The Plantilicious range offers meat-free and healthy meals and snacks with responsibly sourced ingredients. The new concept was launched via several pop ups and are now available within our restaurants.



This development complements several additional measures implemented in support of our Sustainable Food Policy. These include

- Achieving the Bronze Food for Life award.
- Incentivising reusable cups to save over 17,000 disposable coffee cups.
- Saving over 2,350 meals through the Too Good To Go scheme.

## Design-led Responsible Innovation

The Design-led Responsible Innovation Practice research group (D-IRIPr), situated in the School of Design, works with academic colleagues across the university to deliver strategic and sustainable innovation support projects to external enterprises, ranging from start-up charities to Fortune 500 global corporations. We have supported over 80 organisations to date and helped our students to make sustainable decisions within the context of our partnering organisations.

One example of this approach is our decade of work with Unilever. Through this work we have been able to highlight how making small changes can deliver environmental impact at a global scale. This approach has been demonstrated across their beauty and personal care and home care divisions through projects with brands such as Dove, Domestos, Rexona, Persil. At a more strategic level, we have supported their bioscience research team in demonstrating user-benefits that can be gained by developing and investing in biological materials for packaging and product formulations.



# SDG 13 – Climate Action

Northumbria is known as one of the UK's leading universities for research into Antarctic and extreme environments – from the enormous Thwaites Glacier to the Brunt Ice Shelf. We are also working to reduce our own carbon footprint in recognition of the climate challenge.

## Investigating climate change tipping points in the Antarctic

Northumbria University is the only UK partner in a major £4 million EU-funded study to investigate how changes in Antarctica's ice sheets and shelves may lead to a large and irreversible rise in global sea level over the coming decades. Including experts from Norway, Germany and France, the study investigates the likelihood of abrupt and irreversible changes in the movement of ice in the Antarctic region over the next 100 years.



The study has two elements relating to changes to the oceans and to the ice. One team of researchers will investigate what might happen when the oceans underneath the Antarctic ice shelves begin to become warmer. The other team will consider what will happen to the Antarctic ice sheet when grounding lines become unstable, potentially as a result of the ocean conditions becoming warmer.

Findings would improve our knowledge of sudden sea level rise caused by tipping points in Antarctica's climate system and will have significant implications for our understanding of the risks posed to humanity by global warming.

The research is supported through the European Union's Horizon 2020 research and innovation programme which aims to fill knowledge gaps ahead of the next Intergovernmental Panel on Climate Change (IPCC) assessment in 2023 and to provide guidance for policy makers ahead of the 2023 Paris Agreement.

*"I was hugely impressed by the enthusiasm of the staff and students I met at Northumbria... The university's research in renewable energy and Antarctic climate science is outstanding."*

(Chris Skidmore MP during his visit to Northumbria University)

## Climate change could shrink vital tropical rainfall belt

A tropical rainfall belt providing critical summer rains to billions of people is at risk of shrinking due to future climate warming, according to new research undertaken by an international research team led by the University of New Mexico and including scientists from Northumbria University. The resulting droughts could lead to social unrest and mass migration from affected regions, including Central America and sub-Saharan Africa.

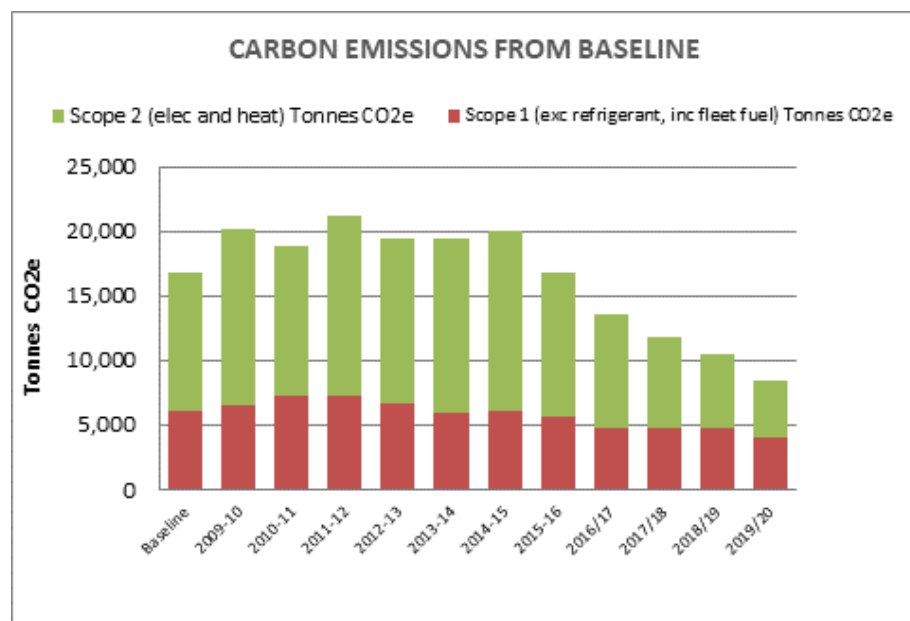
Research focused on the Intertropical Convergence Zone (ITCZ) - a critical rainfall belt found near the equator. The researchers reconstructed 1,600 years of rainfall using a stalagmite recovered from a cave in Belize, Central America, and compared this with existing rainfall data from other locations. The researchers showed that the ITCZ expands in a cooler climate and contracts or shrinks as temperatures increase. As a result, areas of the northern tropics, like Central America, could experience drier conditions as global temperatures rise, leading to crop failure and possible famine. Belize is currently in a state of drought, and the research suggests that future warming will increase the likelihood and frequency of future droughts. The findings have been published in the journal *Science Advances*.

## Dealing with Disasters

Northumbria University hosted the Dealing with Disasters Conference, exploring the causes of, and risks associated with, global disasters such as climate change. Held across three days the conference was attended by more than 130 people from 17 different countries, including representatives from the World Health Organisation and the European Commission. It aimed to find new ways of preventing future disasters and dealing with them more effectively when they take place. Workshop topics included using satellite and modelling technologies to improve the response when disasters occur, ensuring disaster victims have access to adequate food.

## Cutting Carbon at Northumbria

Our Carbon Management Plan, produced in 2010, set out a 32.5% reduction target for 2020 based on a 2005/06 baseline. Work to achieve this ambitious target included the recruitment of a Carbon Manager, developing a dedicated annual carbon budget, enhanced monitoring and reporting, and an array of carbon projects. These have included retrofitting buildings, increasing campus renewables (see SDG 7), replacing boilers, utilising new low-energy cooling technologies, updating to LED lighting and improving the Building Management Systems.



We have exceeded our 32.5% target achieving reductions in Scope 1 and 2 emissions of 50%. Over the last 5 years we have achieved reductions of 58%. Though we recognise our achievements to date, we also recognise the pressing climate challenges facing the world. We are finalising our 2030 Carbon management Plan which sets out our targets for the next 10 years using science-based targets and explores the feasibility of a net zero target for 2040. Our primary focus is to minimise energy use by 2030 so that efforts can then be made to find solutions to decarbonise any outstanding emissions.

## Student Climate Summit

Run by Northumbria Students' Union, the Student Climate Summit in December 2019 featured local candidates from all five main political parties. It gave students the opportunity to question the Parties on what they wanted to do locally, nationally and internationally about climate action in response to concerns from young people. The event was also an opportunity for students to have their say about what 'Climate Emergency' means to them and what they think should be done in response to it.



## One Planet

Together with Newcastle University, we host a new multi-million-pound centre (One Planet) to provide a world-leading training environment tackling grand challenges in climate and environmental sciences. Researchers joining the programme study a diverse range of topics including pollution, weather extremes, sea level change, and frozen environments such as the ice caps and glaciers. The partnership includes more than 40 local and national business, government and industry partners including the Environment Agency, and a host of other engineering, environmental and charitable organisations.

## Supporting Climate Literacy

Northumbria University in collaboration with colleagues at Nottingham Trent University, leads on the United Nations Principles of Responsible Management Education (UN PRME) Climate Change and Environment Working Group. One of the key initiatives to have arisen from the working group is the provision of Carbon Literacy training and development locally, nationally and internationally. The aim of this project is to get academics, students and others Carbon Literate within a short time frame and to get as many people as possible actively involved in embedding climate solutions in their own life and work.

**For more information** on climate education visit SDG 4, or for more information on how we are reducing energy use at the University, visit SDG 7 and SDG 12.





# SDG 14 – Life below water

We are taking steps and working with partners to help reduce negative impacts on the world's oceans and waterways.

## Reducing ocean pollution by changing washing habits

Northumbria Researchers worked in partnership with Procter & Gamble, makers of Ariel, Tide, Downy and Lenor, on the first major forensic study into the environmental impact of microfibres from real household laundry.

Every time someone washes their clothes, thousands of tiny microfibres from the fabric are released into rivers, the sea and the ocean, causing marine pollution. The study revealed an average of 114 mg of microfibres were released per kilogram of fabric in each standard wash load. This equates to almost 13,000 tonnes of microfibres being released into European marine environments annually.

The study also revealed how small changes to our laundry habits can make a positive difference. Cooler faster washes could potentially save 3,813 tonnes of microfibres being released into marine ecosystems in Europe every year. A 30-minute 15°C wash cycle reduced the release of microfibres by 30% compared to a standard 85-minute 40°C cycle, based on typical domestic laundering. Larger wash loads also led to a decrease in the release of microfibres, fabric softeners were found to have no direct impact, and microfibre release was more prominent in new clothes during the first eight washes.

Researchers also compared microfibre release from different types of North American washing machines where high-volume top-loading washing machines have traditionally been favoured. The market is gradually moving to high-efficiency machines which use up to 50% less water and energy per load. The study revealed that these more efficient machines also release fewer microfibres – a 70% reduction in microfibres from polyester fleece fabrics and a 37% reduction from polyester T-shirts.



The study included forensics expertise from researchers including Northumbria's Dr Kelly Sheridan, an expert in forensic textile fibres who has worked on several high-profile murder cases. This specialism enabled the study to also determine the ratios of manmade to natural fibres being released from wash loads. The researchers found that 96% of the fibres released were natural, coming from cotton, wool and viscose, with synthetic fibres, such as nylon, polyester and acrylic accounting for just 4%. These natural fibres will biodegrade by 76% after almost eight months in wastewater, compared to just 4% deterioration for polyester fibres.

The study provides evidence for appliance manufacturers to introduce filtering systems into the design of machines and develop approaches to reduce water consumption in laundry. Procter & Gamble laundry products, such as Ariel Pods, are suited to low temperatures and the company intends to use this evidence to bring further innovations to enable consumers to wash with low temperatures without compromising on performance. They also hope it will encourage textile manufacturers to help by conducting filtered pre-washing to remove the most labile fibres which can easily break down and displace.

## Supporting wellbeing through marine resources

Our oceans and marine environments are essential for the many species they host, however they also directly impact the wellbeing of communities around the world. This relationship is the focus of research by Dr Sarah Coulthard, Senior Lecturer in International Development at Northumbria University. Her recent research has identified the mechanisms through which ecosystem services contribute to wellbeing in coastal Kenya and Mozambique, as well as identifying how to support the wellbeing of those working within fisheries. She has consequently been invited to deliver a guest lecture at Duke University in Autumn 2020 in order to share her expertise on how a focus on social wellbeing can contribute to sustainable marine resource management.





# SDG 15 – Life on Land

We are supporting biodiversity and life on land not only through management of our own campus and work with local partners, but we are also making significant impacts through our research expertise and engagement.

## Wildlife Trade Research

The Environmental and Global Justice research team provide a distinctive approach by addressing concerns about people and the environment through multiple disciplines including Criminology, Law, Political Economy and Sociology. Dr Tanya Wyatt, Professor of Criminology, conducted research on the wildlife trade between the UK and Mexico. She identified that both legal and illegal wildlife trade is contributing not only to the extinction of species and environmental degradation, but also to instability, violence and unhealthy physical environments for human communities.

On World Wildlife Day in March, Dr Wyatt attended a House of Lords event to discuss the need for making wildlife trafficking a fourth protocol to the UN Convention on Transnational Organised Crime (UNTOC). She was consequently asked to speak at a follow-up event for UNTOC in October 2020.

## Hedgehog Friendly Campus

We participate in the Hedgehog Friendly Campus Scheme – achieving the Bronze Award in December 2019. Our activity has been largely delivered by our team of enthusiastic student volunteers who have run social media campaigns, on-campus awareness campaigns, litter picks and fundraising events. The activity also involves monitoring hedgehogs on campus and training security and grounds teams in recognising, reporting and supporting hedgehogs. We are sharing advice with local partners such as Newcastle University and are now working to achieve the Silver, and then the Gold, Award.



## Newcastle Biodiversity Group and urban pollinators

We Chair the new Newcastle Biodiversity Group which brings together the Council and local organisations to share best practice and undertake joined-up projects in order to maximise support for biodiversity across the city.

The group is strongly supported by a Northumbria research team with expertise in urban pollinators. In Britain alone, a third of wild bee and hoverfly species are in decline and many people do not realise that bees can thrive in an urban environment. Our work to understand urban pollinators is enabling us to share best practice with local city-partners – from planting choices to land management – as well as undertake monitoring to identify the impact of changes made.

## How is climate impacting nature?

Northumbria University, together with scientists from the US and Argentina, are set to complete a first-of-a-kind \$1m research project exploring how global climate change could impact the millions of species of fungi around the world.

Some species of fungi absorb carbon while others release it meaning they could potentially help or hinder efforts to control global warming. Researchers will examine fossilised fungi from a period of global warming between 15 and 17 million years ago, to discover how these fungi reacted to climate change. Findings should enable forecasting of how predicted current global temperature changes could impact present day species.

*“As an essential part of the carbon cycle, and common pathogens to many of the world’s crops, how individual species might change their geographical range and how fungal communities might change is valuable information if we are to adapt to current and future warming.”*

(Dr Matthew Pound, Northumbria University)



# SDG 16 – Peace, Justice & Strong Institutions

We have significant expertise relating to justice, peace and strong, cohesive communities. These not only form the basis of multiple research strengths but are also key components of our degrees and outreach in areas including law and policing.

## Internationally recognised for Benefitting Society

Northumbria won a national Green Gown Award and was Highly Commended at the International Green Gown Awards, for the transformational work of our Student Law Office.



The International Green Gown Awards, supported by UN Environment, recognise exceptional sustainability initiatives undertaken by universities and colleges around the globe. They are widely acknowledged as being the most prestigious recognition of sustainability best practice within the global education sector and cover all aspects of educational institutions – from their teaching and research, leadership and buildings to how students can benefit the quality of life in the communities around them.

The Awards' "Benefitting Society" category recognises the powerful and innovative ways education institutions are realising their purpose to benefit the lives of individuals, communities and wider society. We were delighted to win the national award for this category in November 2019, followed by Highly Commended recognition at the International Green Gown Awards in July 2020.

Northumbria is acknowledged as having one of the most active and pioneering student law offices. Students undertake free legal work on behalf of real clients. In the past 10 years, students have represented more than 2,500 clients recovering over £1.5 million, and defending rights ranging from employment to housing.

*"Following our Green Gown Award for the UK & Ireland in the "Benefitting Society" category...with a Highly Commended at the International awards is an outstanding achievement. It is testament to the extraordinary quality of our students and academics – and the clear focus Northumbria has to sustainability goals."*

(Dr Paul McKeown, Associate Professor and Director of the Student Law Office)

## Addressing corruption in Nigeria

A research team from our Business School is developing British and Nigerian understanding of corruption issues in Nigeria, and to build capacity for addressing this challenge.



Northumbria's Dr Jackie Harvey is a leading Anti-Money laundering expert. In July 2020 she presented the initial findings of her research into money laundering and the proceeds of corruption in Nigeria to an international audience hosted by the Royal United Services Institute. Delegates included the National Crime Agency's International Corruption Unit, World Economic Forum, the global Financial Action Task Force and agencies from Nigeria and the UK.

Professor Harvey's research project investigates whether international anti-corruption frameworks can be better targeted to reduce the proceeds of corruption from moving across the globe. Research discovered that a wealth of data on beneficial ownership is already collected by different agencies, but what is missing is the institutional capacity to bring it together in a timely and useable form for those who need to make use of the information.

Along with other presenters from OpenOwnership, Dr Harvey advised delegates that the Nigerian government has committed to a range of anti-corruption measures. These include creating a central public register of the beneficial owners of companies and a platform to enable information sharing amongst security agencies. They will also bring forward a Proceeds of Crime Act to allow for non-conviction-based confiscation powers and improved management of recovered assets.

This research is supported by The Global Integrity Anti-Corruption Evidence Programme which works with research partners around the world to help policy makers and practitioners design and implement effective anti-corruption initiatives.

## Putting hate propagandists on trial

Tackling hate and fear propaganda through prosecution at international criminal tribunals was debated by a global panel of legal and social sciences experts during a conference hosted by Northumbria University in February 2020.

Open to the public, the conference explored why and how dealing with hate and fear propaganda at international criminal tribunals needs to be improved. Keynote addresses were made by an international panel of experts from countries including the USA, Australia, Hong Kong, the Netherlands and the UK. Judge Sir Howard Morrison, one of UK's most senior judges, also shared his views and experiences as Judge at the Appeal Division of the International Criminal Court.

This symposium discussed the necessity of an improved approach to hate and fear propaganda at international criminal courts. Topics explored included the nature of hate and fear propaganda, how social sciences expertise could be better used during international criminal tribunals, and legal challenges to the successful prosecution of hate crime. It also explored ongoing hate propaganda in different regions of the world.

The event also included the book launch of 'Propaganda and International Criminal Law: From Cognition to Criminality' (Routledge, 2020), edited by conference speaker Prof. Predrag Dojčinović and included contributions from several distinguished scholars who also presented at the conference.

*"Ensuring the effective prosecution and prevention of hate and fear propaganda leading to mass atrocities is essential if, as an international community, we are to deliver justice for victims and prevent future large-scale crimes."*

(Professor Mohamed Badar, Chair of Comparative & International Criminal Law at Northumbria)

**Northumbria University ranked 8<sup>th</sup> in the world for its contributions to Sustainable Development Goal 16.**

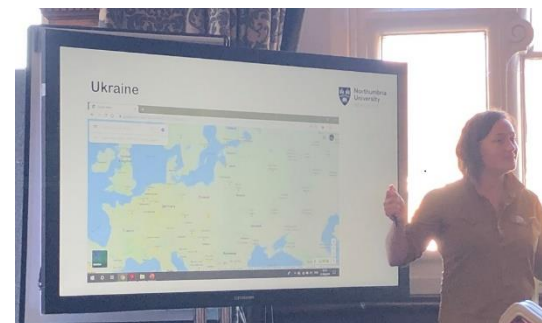
(THE Impact League, 2020)

## Public event to celebrate the UN International Day of Peace

Academics from Northumbria University supported the United Nations' International Day of Peace in September 2019 with a programme of free, inspirational "Be the Change" events open to University staff, students and members of the public.

Coordinated by Northumbria's Research team events included:

- A stage performance of "The Tin Ring" by Associate Professor Jane Arnfield - the story of Czech-Jewish Holocaust survivor Zdenka Fantlová whose life was changed forever when her country was invaded by the Nazis. The play has been performed to thousands of people internationally, including in schools and for organisations involved in conflict resolution, to address issues around human rights, the Holocaust, war and migration.
- A screening of the award-winning film "Sanctuary" directed by Northumbria academic and screenwriter Len Collins. The film highlights Section 5 of the Irish Criminal Law Act 1993, which prohibited sexual relationships between people with intellectual disabilities and influenced a change in the law. It has toured internationally and won the 2017 Dublin Film Critics Circle award for Best Irish film.
- A discussion hosted by Professor Matt Baillie Smith - an expert on volunteering, activism and civil society and Director of Northumbria's Centre for International Development. The discussion explored international volunteering and activism, including how to provide protection and assistance to people affected by disasters and conflicts.
- A talk by Human Geographer Inga Freimane asking "Where is War Located?". The talk explored activists' experiences of war in Ukraine, how conflict spills over into everyday life, and how the lines between peace and war are blurred.







# SDG 17 – Partnerships for the Goals

Showcased throughout this report is our work in partnership with organisations and businesses locally, nationally and globally. It is through these Partnerships that we can maximise our contribution to the SDGs and best deliver outstanding and impactful teaching and research.

## Partnerships to advance the SDGs

Northumbria University has been a signatory of the SDG Accord since October 2018, and since January 2019, we have also been members of the United Nations' Academic Impact. These not only reflect our commitment to supporting the SDGs through our research, teaching, campus and operations (as stated in our University Strategy) but also enable us to network with colleagues around the world to build awareness of the SDGs and to co-develop solutions to global challenges.



## Delivering benefit through international education

We work in partnership with education providers around the world to deliver high quality education internationally (see SDG 4). These are recognised as supporting skill development, economies and job markets in those areas but they can also help to minimise carbon emissions.

Transnational education not only makes high quality education more accessible but by undertaking many interactions with our partners virtually (even prior to Covid-19), we are able to avoid the carbon from flights which might otherwise have been taken by students seeking an international education.

## Local Partnerships

We work with and support a large number of local organisations, citizen groups and public bodies. These include the North East Local Enterprise Partnership, the Board and Council of the North East Chamber of Commerce and the North of Tyne Combined Authority Sector Groups on digital, creative and cultural. We are host institution for the North East Initiative of Business Ethics (NIBE) and members of the Students into Newcastle Forum. We have continued partnerships with a wide range of arts and heritage organisations such as The Bowes Museum, the BALTIC Centre for Contemporary Art and New Writing North.

## Creating effective partnerships for academically-informed policy

Public policy development should be based on reliable research. University-government partnerships are therefore key and need to be encouraged and supported but neither universities nor policymakers are currently engaging as effectively as they might to ensure the translation of academic expertise into the policy sphere. A new partnership involving Northumbria University will explore the most effective ways of enabling academic-policy engagement and strengthening links between universities and government.



**Capabilities in Academic Policy Engagement**

The three-year CAPE project brings together universities, including Northumbria University, and policy stakeholders from across England in order to ensure it addresses issues of policy beyond Westminster and reflects the diversity of England's communities. It will pilot a range of interventions to improve the quality of academic input into public policy, enabling universities to respond to pressing questions in an agile, targeted way. It will develop a range of evidence-based tools and resources to support academic-policy engagement and establish a virtual Centre for Universities and Public Policy (CUPP) to provide a collaborative platform for networking and sharing knowledge.

*"We are particularly pleased to be supporting a consortium with widespread regional reach, which will help us to understand different geographical contexts and the important role that universities can play."*

(David Sweeney, Executive Chair of Research England)

*"In the current environment, it is more important than ever that policy...is developed by government in a way that is supported by robust evidence. Universities can and do play a critical role in providing this evidence base".*

(Professor George Marston, Pro Vice-Chancellor (Research and Innovation), Northumbria University)

## Joining Europe's largest student association

An organisation set up to support international students at Northumbria University was approved as a full member of the Erasmus Student Network UK – the largest student association in Europe.

The ESN is a non-profit international student organisation that aims to support opportunities for cultural understanding and self-development under the principle of Students Helping Students. It allows students across Europe to share their experiences of studying abroad. The ESN Newcastle group was established this year and awarded full-member status in June 2020. It provides a variety of support and events for all students studying in Newcastle, whether they are an incoming, current, or past student.

*“This is a significant achievement and honourable recognition for our section to officially become a part of ESN network... This will open up exciting opportunities and support not only for our team, but most importantly to international students at Northumbria and in Newcastle.”*

(Natalia Flis, Northumbria Law student, President of ESN Newcastle and elected ESN UK National Board member)

## NIBE

The University has worked closely with the North East of England Initiative for Business Ethics (NIBE), a business-led association promoting ethical business in the region for a number of years. The Faculty of Business and Law provides financial and administrative support to NIBE, and Professor Ron Beadle is a trustee/Director on the NIBE Board.

Amongst other activities in 2019/20, NIBE has established a North East Ethical Business Network involving the North East Chamber Of Commerce, the Federation of Small Business, the Regional CBI, and the Asian Business Network in the North East. The group hosts events at which local businesses and third sector organisations share best practice in sustainability and business ethics. It also works with local schools on an annual business ethics event for young people in the region. Recent events have included a public lecture given by Paul Polman (former CEO of Unilever) at the University in February 2020.

## Partnership to support effective and trustworthy governments

Partnerships are key to improving the wellbeing of societies and their environments, but so is effective and trustworthy leadership. Academics from Northumbria's Newcastle Business School and senior researchers from the Centre for Public Impact (CPI) have announced a new partnership which aims to ensure that citizens have positive relationships with governments and are involved within policy development processes.

Funded by the Boston Consulting Group, the CPI is an independent not-for-profit organisation. It works with governments, public servants and policymakers to shape thinking about the future of government and to bring about positive change.

The partnership brings together CPI's research on “shared power” between governments, professionals and citizens, and Northumbria's leading research into public management and governance. Research by Northumbria's Dr Toby Lowe focuses on how public service can better serve the needs of people when responding to complex societal problems. He advocates a “Human, Learning, Systems” approach which devolves decision-making and enables policy makers to respond to human variety, to build empathy and seek to trust and be trusted.

*“CPI is delighted to work with one of the leading thinkers on complexity in government and how governments can deliver better policies and services. Combining our research will bring new insights into how we can help governments deliver better outcomes for citizens.”*

(Adrian Brown, Executive Director of CPI)

## GCRF

Northumbria University is working with UK Research and Innovation and global governments, NGOs and international agencies to address key global challenges through the Global Challenges Research Fund (GCRF). The GCRF is a £1.5 billion fund set up by UK Government to support cutting-edge research that addresses challenges relating to the SDGs, specifically within developing countries around the world. Our work to inform and develop SDG Policy through our GCRF activity includes a number of our research groups such as ‘Environmental and Global Justice’, ‘Centre for International Development’ and the ‘Disaster and Development Network’.

# Environmental Performance Review

Area of Sustainability	Target	Deadline	Result pre-Coved (if different from 2019/20)	Result for 2019/20	Notes
<b>Environmental Management System</b>	Maintain ISO14001:2015 certification.	2020		Maintained	ISO14001:2015 surveillance audit identified no negative findings.
<b>Environmental Management System</b>	10% reduction in the number of major and minor non-conformances.	2020		58% reduction	Major and minor non-conformances reduced from 12 in 2018/19 to 5 in 2019/20 despite equal audit schedule.
<b>Energy and Carbon</b>	40% reduction in scope 1 & 2 emissions from 2005/6.	2020	41.5% reduction	49.5% reduction	Our Carbon Management Plan for 2010/20 originally targeted a 32.5% reduction. We surpassed this in 2018/19 and therefore increased the ambitious target to a 40% reduction. We have again exceeded this target.
<b>Energy and Carbon</b>	10% reduction in scope 1 & 2 emissions from 2018/19.	2020	5.8% reduction	19% reduction	A reduction of 19% was achieved however without the reductions resulting from the Covid-19 lockdown we would not have achieved our target. The development of the Carbon Management Plan for 2030 will identify the projects and funding required to ensure the continual carbon reductions that we aim to achieve.
<b>Energy and Carbon</b>	4% reduction in scope 3 emissions.	2020	0% change	55% reduction	Reduction mainly due to significantly reduced business travel arising as a result of Covid-19.
<b>Energy and Carbon</b>	Average DEC rating of D.	2020		C	Target achieved. This target has been made more ambitious within our 2020/21 Policy to set both a minimum DEC and an average DEC rating for our buildings.
<b>Waste and Resources</b>	5% reduction in total waste produced (tonnes) from 2018/19.	2020	1% reduction	21% reduction	Minimal reduction in waste tonnage prior to Covid-19. More waste tonnage data is collected now than previously i.e. tonnages for sanitary, hazardous etc.

Area of Sustainability	Target	Deadline	Result pre-Coved (if different from 2019/20)	Result for 2019/20	Notes
					It was also found that some tonnages were previously incorrect e.g. sanitary waste. Efforts to reduce waste further include exploring opportunities for reuse of more equipment e.g. lab equipment, integration of waste expectations within construction activities and sustainable procurement i.e. life cycle thinking.
<b>Waste and Resources</b>	60% of total waste sent for reuse, composting, anaerobic digestion or recycling.	2020		41%	The cessation of post-collection hand sorting of waste in the North East significantly reduced the proportion of waste sent for recycling. Recycling is now solely reliant on correct segregation of waste by staff and students. Activities including campaigns, training, signage, audits and sourcing of new disposal options is supporting recycling rates. Policy for 2020/21 includes ambitions to maintain 41% rate (despite increase of disposable items in light of Covid-19) and sets a greater ambition for 2030 based on national targets.
<b>Waste and Resources</b>	0% of non-hazardous waste sent to landfill.	2020		0%	Our non-hazardous waste streams go to recycling, anaerobic digestion, composting, energy from waste. Most of our hazardous waste goes for incineration however they may be some items which can only be disposed of to landfill.
<b>Water Management</b>	2% reduction in total mains water consumption from 2018/19.	2020		Data unavailable	Data is currently unavailable due to an IT issue but this will be added to this report as soon as the data can be accessed.
<b>Travel</b>	4% reduction in emissions from business travel from 2018/19.	2020	1% increase	33% reduction	Low levels of change seen from previous year prior to the impact of Covid-19. Consequently, a review of travel norms and procedures are in progress to minimise business travel even post-Covid-19.



Area of Sustainability	Target	Deadline	Result pre-Coved (if different from 2019/20)	Result for 2019/20	Notes
Travel	Single Occupancy vehicle rate for commuter travel. City Campus: Staff 24%, Students 7% Coach Lane Campus: Staff 59%, Students 29%	2023		<b>City:</b> Staff 22%, Student 5% <b>Coach Lane Campus:</b> Staff 64%, Student 25%	Results taken from interim 2020 Travel Survey - for more information see SDG 11. We are on track for the 2023 targets but the long-term impact of Covid-19 on travel behaviours is currently unknown. Targets for 2023 have been included within the Policy for 2020/21.
Travel	3% reduction in emissions from commuter travel from 2017/18 (average CO2e per head).	2023		27% reduction	Results taken from interim 2020 Travel Survey. We are on track for the 2023 targets but the long-term impact of Covid-19 on travel behaviours is currently unknown. Targets for 2023 have been included within the Policy for 2020/21.
Travel	1% reduction in emissions from students start and end of term travel from 2017/18.	2020		Data unavailable	Comparison not possible due to incomparable data. Methodology gives low level of accuracy as it is based on survey responses only i.e. high response from international students can significantly impact results. 2020/21 Policy sets target to identify a more accurate methodology for when the survey is next completed in 2022.
Biodiversity	2% increase in metres of spaces considered moderate / high value from 2017/18.	2020		Postponed	Audit postponed to 2020/21 due to Covid-19. Target included within 2020/21 Policy.
Biodiversity	Gain Bronze Hedgehog Friendly Campus certification.	2020		Achieved	Achieved Award. Target for Silver Award included within 2020/21 Policy.
Procurement	Level 2 Flexible Framework.	2021		In progress	Activity in progress and on track for 2021. Target included within 2020/21 Policy.
Procurement	Establish baseline for carbon emissions from Procurement.	2020		Incomplete	Research found no reliable methodology was available (current measurements only use money spent and does not take other factors into account).

Area of Sustainability	Target	Deadline	Result pre-Coved (if different from 2019/20)	Result for 2019/20	Notes
					Sustainable Procurement activity will instead focus on setting actions for prioritised categories. A carbon baseline will be set once suitable methodologies are developed in the sector.
<b>Procurement</b>	Bronze Food for Life certification.	2020		Bronze maintained	Bronze level awarded again. Target maintained for 2020/21 and supported by Sustainable Food Policy.
<b>Sustainable Buildings</b>	Average DEC rating of D.	2020		C	Target achieved. This target has been made more ambitious within our 2020/21 Policy to set both a minimum DEC and an average DEC rating for our buildings.
<b>Sustainable Buildings</b>	All refurbishment projects in 2019-20 to achieve a SKA rating.	2020		Incomplete	Unable to complete in 2019/20 due to lack of staff resource and interruption to project plans. Target moved to Policy for 2020/21.
<b>Emissions &amp; Discharges</b>	7% reduction in scope 1, 2 and 3 carbon emissions.	2020	4.7% reduction	25% reduction	Reductions largely resulting from reduced business travel and building closures arising from Covid-19.
<b>Emissions &amp; Discharges</b>	0 significant spills.	2020		0 spills	No reported spills involving discharge to drain or land reported or observed.
<b>Education for Sustainable Development</b>	15% of staff to complete environmental training.	2020		25%	New non-mandatory online module launched with high completion rates and excellent feedback. A student version of the training is consequently now in development.
<b>Education for Sustainable Development</b>	30 students undertaking research projects to enhance Northumbria's sustainability performance.	2020		113 students	Projects covered multiple topics including compliance audit, biodiversity improvement opportunities, energy reduction options and waste minimisation strategies.
<b>Education for Sustainable Development</b>	30 annual sustainability-related events.	2020		34 events	Events included guided cycle tours, litter picks, forums, public lectures, competitions, second-hand sales and workshops.

Area of Sustainability	Target	Deadline	Result pre-Coved (if different from 2019/20)	Result for 2019/20	Notes
Research & Living Lab	3 active Living Lab projects (including staff researchers).	2020		4 active Living Lab projects	Four overarching Living Lab areas identified – each comprising of multiple constituent projects: <ul style="list-style-type: none"> <li>- Responsible Consumption</li> <li>- Minimising Energy Use</li> <li>- Sustainable Estate Design &amp; Construction</li> <li>- Urban Biodiversity</li> </ul>
Research & Living Lab	Maintain United Nations Academic Impact membership.	2020		Membership maintained	Target continued within 2020/21 Policy.
Research & Living Lab	Establish baseline for Research activity in support of the UN Sustainable Development Goals.	2020		Complete	Report completed based on publications for each SDG. 2020/21 target set to develop more comprehensive reporting of the ways in which our Research supports the SDGs.
Climate Change Resilience	Production of Climate Resilience Plan and integration with the Estate Masterplan.	Dec 2020		In Progress	Action to be completed by December 2020. Target included in 2020/21 Policy.
Reputation for sustainability	Top 30 in the People & Planet University League.	2023		On track	Ranked 4 <sup>th</sup> in national 2018-19 People & Planet League. No League took place by People & Planet in 2019-20. Target increased to 'Top 10' within 2020/21 Policy.
Reputation for sustainability	Participate in the THE Impact League.	2020		Complete	Ranked 27 <sup>th</sup> in the THE Impact League for our contribution to the SDGs. Top 50 target for 2023 set within 2020/21 Policy.
Reputation for sustainability	76% student rating for institutional commitment to sustainability.	2020		Postponed	Survey postponed due to Covid-19. To be resumed in 2020/21. Target included in 2020/21 Policy.