



ANNUAL ENVIRONMENTAL AND SOCIAL GOVERNANCE REPORT

2022/23

**AMBITION
DELIVERED
TODAY**





Welcome to our Annual Environmental and Social Governance Report, which, in keeping with our environmental aspirations, we are publishing online.

Please let us know if you have any feedback on this report, or if you need any additional information.

tees.ac.uk/green



EcoCampus provides a structured framework to manage universities' sustainability performance in logical steps, in line with the international management system standard, ISO14001.

Teesside University is committed to retaining and improving our EcoCampus accreditation. The criteria for this prestigious award enables us to work in a consistent and pragmatic way towards ensuring that we manage our environmental obligations.

We are currently accredited at Gold level and we are committed to retaining this.

There are eleven areas considered within the EcoCampus management system and we have based this environmental report around these

INTRODUCTION



Darren Vipond
Director, Campus Services

Teesside University continues to strive for a sustainable future, and to embed sustainability across all business operations.

The University has made significant progress in establishing a comprehensive approach to environmental sustainability and is aware of the impact it has locally, nationally and internationally.

Recent global events, energy price fluctuations and the cost-of-living have kept sustainability at the top of the corporate agenda. Through a new campaign, HelpTU, the University is engaging staff and students to be actively involved in embedding sustainability across campus.

This report details the progress made in 2022/23 and highlights the achievements to date.



Dr Jo Heaton-Marriott
Executive Director, Communications and Development
Executive Champion for Environmental and Social Governance

Environmental sustainability is core to the University's social responsibility goals and is an area in which significant progress has been made.

The University is now expanding that good practice across the wider ESG portfolio, with a newly formed ESG Oversight Board in place to drive forward cross-institutional activity.

Examples include a new partnership with FurbdIT, which has already seen hundreds of digital devices redistributed to local charities and community partners, rather than being simply recycled. The University also launched a new workplace giving scheme, Be the Change, with donations of over £5,000 supporting voluntary sector organisations in their mission to build sustainable and resilient communities.

Through these developing initiatives, the University continues to uphold its green commitments, whilst delivering wider social impact.

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Health and safety

Teesside University produces an annual health, safety and well-being report which is published online, and can be viewed by staff, students, and members of the public.

SUSTAINABILITY IN NUMBERS

100%

of electricity used by the University is from green sources

46

NEW TREES

Planted as part of recent developments

A reduction of CO₂ emissions of

49.2%

against CO₂ peak emissions

THE UNIVERSITY USED

12,801,760 KWH OF GAS

12,202,463 KWH OF ELECTRICITY

67,275 M³ OF WATER

TOTAL SPEND ON UTILITIES WAS

£5,267,361

11,064

CUBIC METRES

of water saved – enough to fill four Olympic sized swimming pools

Up to 2023, donations of goods of over **96 tonnes** to the British Heart Foundation from staff and students diverted from landfill equivalent of **1000 KG** of CO₂ emissions. This raised over **£54,000** for the BHF.

TO HELP REDUCE PLASTIC WASTE, OVER 30

drinking water refill locations are available across campus

80

EXTERNAL

cycle parking spaces on campus

219

COVERED

cycle parking spaces on campus

SIX SOLAR

PV arrays on campus generating a capacity of

150.64 KWP

IN 2022/23 WE RECYCLED OVER **120 TONNES** OF CARDBOARD, PAPER, PLASTIC AND METAL

SINCE 2018 WE HAVE RECYCLED MORE THAN **150 TONNES** OF GLASS



ENERGY AND WATER

Our energy team produces a comprehensive energy report every month and annually. This is available to staff, students and the public on Green Tees.

Carbon

The University achieved a reduction of CO₂ emissions of 49.2% against CO₂ peak emissions.

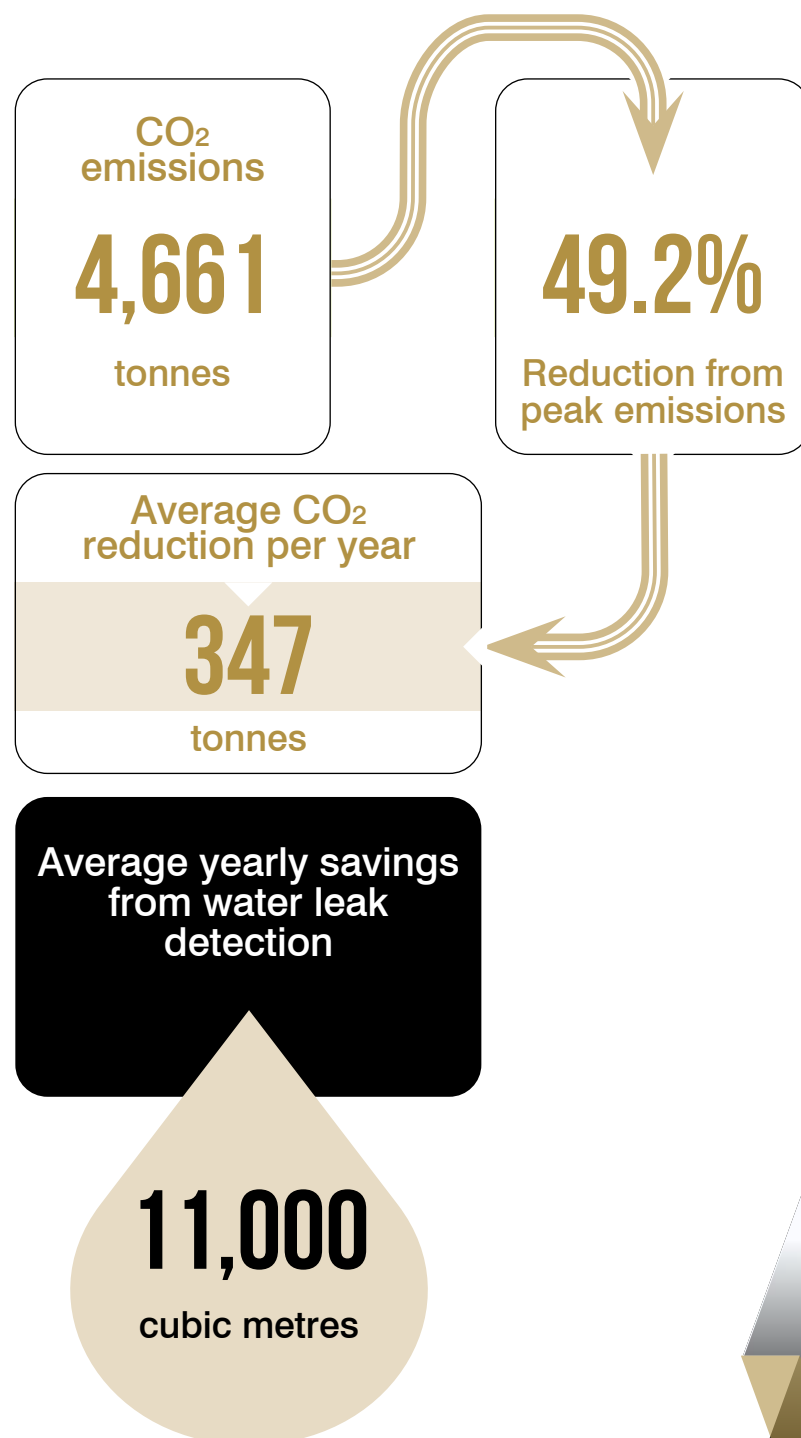
Since 2008 the University has progressively added water leak detection systems to all major buildings across the campus. Up until the end of the 2021 financial year the systems saved circa 11,000 cubic metres of water.

The water leakage systems have enabled the University to act upon and respond to water leaks in all manner of locations including faulty percussion taps, running taps and underground pipework leakage. A significant amount of water and budget has been saved. At an average of £2 per cubic meter over the period, an average of £33,624 per year has been saved.

Energy monitoring

The aim of the University's monitoring and targeting (M&T) system is to provide a greater understanding of how energy and water is consumed across campus. In particular, it identifies if there are signs of avoidable waste and highlights opportunities to reduce consumption.

M&T can be used to quantify the savings achieved through implementation of energy saving projects and campaigns and provide feedback to inform staff awareness campaigns. It will also help to improve budget profiling and to support benchmarking exercises.



REFILLABLE WATER BOTTLE CAMPAIGN

To help reduce the use of single use plastics, refillable water bottles have been given out to new and existing students. The glass bottles include a QR code which links directly to the University's environmental map showing the location of all free water refill stations on campus.

This 2023 initiative, to reduce environmental impact assists students with the cost of living and raises awareness of University environmental activities, has been well received by students, generating positive comments on social media.



GREEN IT

As part of the University's commitment to sustainability, IT and Digital Services (ITDS) have been working on a number of green IT initiatives, most recently in line with JISC's Exploring Digital Carbon Footprints report. *

Most green initiatives in higher education involve ITDS, ranging from relatively simple ways to save power, to those needing longer term strategic planning. Teesside University has taken both routes over the years to garner quick wins and foster future good practice.

THE REWARDS

- > Reducing our carbon footprint
- > Meeting and exceeding green targets
- > Improving efficiency and effectiveness
- > Improving our reputation
- > Saving money
- > Strategies for success

The three main ways ITDS have contributed to the green agenda are:

Hardware: changing the kit we use, for example, by purchasing more power efficient and sustainable technology and disposing of old kit responsibly.

Software: implementing power saving policies on client devices and introducing server virtualisation.

People: changing the way we use ITDS, for example, by digitising working practices and conversing with each other using unified communications technology and Microsoft Teams



*beta.jisc.ac.uk/reports/exploring-digital-carbon-footprints

What have we have already accomplished?

Carbon measurement

Our consistent approach to power down PCs cuts the power usage of student/staff workstations, so that computers are not operating when not in actual use. Simple things such as turning PC monitors off instead of running screen savers have also provided cumulative benefits. These efforts demonstrate a positive environmental and financial impact for the University terms.

Device consolidation

We have changed our approach to printing to use shared printers, with full costing details available and duplex and eco-mode as default. We have also encouraged staff and students to make use of the central reprographics facility for large volume outputs.

Server consolidation and virtualisation

Unlike client PCs, servers cannot be put to sleep because of the need for them to supply services 24x7. Most usage occurs during daylight hours and at other times background data transfers, backups and updates occur. Green benefits in this area have focussed on reducing the overall number of servers. Server room consolidation reduced the original 16 computer rooms that we had originally, to three. That reduction was largely made possible by utilising virtualisation techniques (running more workloads on each physical server), which reducing cooling, storage and power costs resulting in significant energy savings.

Cloud computing

The benefit to the University is zero footprint on site regarding servers and storage systems that would be required to host these systems locally. There may well be future services that can be offered to staff and students via this route, but not all of our internal systems. It is not a panacea and while there is still a carbon impact, it is off site.

Tailored storage solutions

Energy savings have also been made across the University by reviewing how data storage is provided, moving to a single shared platform thereby reducing the overall number of data storage systems. This single shared system approach also generated business benefits around better fault tolerance, business continuity and high availability.

Extending equipment lifecycles

The University policy of replacing IT equipment (especially PCs) was changed from an average of three years to six years.

Reducing travel

Although accelerated by the global pandemic, the University has implemented unified communications technology and virtual meeting software such as Microsoft Teams.

IT donations into the local community

The University works closely with FurbdIT a local organisation which helps to bridge the digital divide. It is a digital platform designed to connected businesses and other organisations who have digital equipment they no longer need or would like to donate.

To date the University has donated hundreds of devices with 60 distributed to individuals, families and community organisations. Some of the organisations include Sticks and Stones CIC, The Genesis Project, Halo, Thirteen and ROC Solid Group in addition to The Hope Foundations volunteers and learners.

£19,500 of financial value provided via the devices if organisations had purchased in a refurbished state.

Research from the Good Things Foundation* suggests for every £1 invested in digital inclusion there is a £9.48 return to the UK economy.

18 tonnes of carbon emissions saved through reused devices. According to the National TOMs* (NT31) savings in CO2 emissions equate to £244.63 per tonne.

Value calculations

Measure	Financial value	Social return on investment
Value of 60 devices distributed.	£19,500	
Value of each £1 invested in digital inclusion by £9.48.		£184,860
18 tonnes of carbon emissions savings by £244.563 (NT31).		£4,403.34
Resale value of 60 brand-new laptops at £450 each.	£27,000	
Total	£46,000	£189,263.34

*goodthingsfoundation.org/insights/everyone-connected

*socialvalueportal.com/solutions/national-toms

RECYCLING AND WASTE MANAGEMENT

Glass is endlessly recyclable and generally doesn't suffer from loss of quality of purity

ONE RECYCLED TIN CAN

would save enough energy to power a television for **THREE HOURS**

ONE RECYCLED GLASS BOTTLE would save enough energy to power a computer for **25 MINUTES**

42% of all global plastics is used for packaging

Recycling **1 tonne** of paper is equivalent to saving **17 trees**

ONE RECYCLED PLASTIC BOTTLE

would save enough energy to power a 60-watt light bulb for **THREE HOURS**

What happens to recycling and waste generated at Teesside University?

Waste is segregated on site and disposed of in the waste streams (general, recycling, glass, food).

General waste is not sent to landfill. It is shredded and sent to Ferrybridge to be used as Refuse Derived Fuel in an energy from waste plant.

Dry mixed recycling is brought back to the transfer station and sorted into the commodities by a picking line.

WASTE COMPOSITION

Service weight	Tonnes
Electronics	10.13
General	227.42
Glass	20.77
Metals	
Mixed recycling	
Organic	
Total	

None of our waste (non-recyclable) from waste plant

All other waste stream – glass, metal, green waste – will go to Biffa's transfer station to be sorted and recycled.

Plastics are segregated very specifically and broken down and sent to the following:

HDPE PIPE – RIVERDALE PAPER, NEWCASTLE,
BALED PVC – WORLDWIDE WASTE, MANCHESTER
LDPE – EVERGREEN POLYMERS
RIGID PLASTICS – IP POLYMERS
PPE COREX – NEWPORT PAPER, SHROPSHIRE
LOOSE PVC FRAMES – ECOPLAS, SELBY

Biffa also have their own plastic processing plants in the North East at Wilton, Washington and Seaham, and all three are currently working on projects to make plastic processing more effective for our local area.



NET ZERO

The Net Zero Industry Innovation Centre (NZIIC), completed in June 2023, is designed to forge robust connections between industry, research facilities, and higher education. It serves as the driving force propelling our region towards an ambitious goal to establish itself as the foremost and most expansive decarbonised industrial cluster by 2040.

The NZIIC will grow net zero capabilities and opportunities, creating hundreds more clean energy jobs and strengthening the existing innovation ecosystem through provision of specialist facilities and support.

Aligning the expertise of the University with industry need and government priorities, the NZIIC will deliver clear impact across collaborative research and development, enhanced productivity, environmental and business sustainability, and a unique opportunity to grow capabilities across clean energy and the circular economy.

Growing Teesside's hydrogen economy and catalysing a just transition to net zero

With the backing of Research England, we've partnered with Durham University to provide hydrogen innovation research capacity to the Tees Valley region. The research will fuel a green industrial transformation of the North of England, delivering benefits to local authorities, businesses, and communities. Key research themes include:

Heat

Power
(smart
energy)

Transport

Just
transition



SUSTAINABLE CONSTRUCTION



Woodlands Halls improvements will reduce our environmental impacts.

Our commitment to becoming a net zero institution by 2030 received a boost in the form of a £875k grant (from the Salix Phase 3b Public Sector Decarbonisation Scheme) to make our Woodlands Halls student residences more energy efficient.

The funding was awarded as part of a £1.8bn government initiative to improve the energy efficiency of homes and public buildings across England. It will be used to replace the existing gas heating systems with air source heat pumps in summer 2024. Cavity and wall loft insulation and double glazing was also installed to improve the energy efficiency of the buildings.

These changes will complement our sustainability strategy by reducing our environmental impact and support our efforts to create a net zero campus.



Climate impacts reduced – savings in CO₂

The NZIIC was constructed by Robertson in 2020. The company moved beyond being a carbon neutral business and became a climate positive organisation through continuously offsetting more emissions than they have been generating.

Several measures were taken to reduce the emissions across the NZIIC project; from design decisions on the frame of the project, to the type of fuel that would be used in the plant on site.

The project aimed to keep embodied carbon emissions of the building below 650kgCO₂e/m². An initial assessment of how much carbon is expected to be produced by the project by Turner & Townsend suggested, without use of innovative design and construction methods, the building would hit 745kgCO₂e/m². This equates to 161 tonnes of CO₂e that needed to be reduced.

Another example of changes made on site was the introduction of HVO instead of white diesel. Had the site used exclusively white diesel, the emissions from site activities could have been as high as 221.2 tonnes of CO₂e. Using HVO fuel meant that the actual emissions were just 51.9 tonnes of CO₂e, saving 169.3 tonnes of CO₂e of emissions.

A further big change made was to the steel frame of the building, which required 93 tonnes of steel. Using 100% recycled steel, this was expected to give off emissions of around 66TCO₂e. To reduce this figure, an electric furnace was used instead of a blast furnace, this reduced the emissions to as low as 22.4TCO₂e (saving 43.6 TCO₂e).



ENVIRONMENTAL MANAGEMENT SYSTEMS

EcoCampus

EcoCampus is a national environmental system award scheme for the higher education sector. The scheme allows Teesside University to be recognised for addressing key issues of environmental sustainability including carbon reduction. The University is currently accredited at gold level and we are committed to maintaining this and working towards platinum standard.

Policy

Teesside University's environmental policy is overseen by the Environmental and Social Governance Oversight Board and is reviewed annually. It is published on our Green Tees website and is available to staff, students and the public.

tees.ac.uk/sections/about/public_information/green_tees.cfm

THE CENTRE FOR DIGITAL TRADE & INNOVATION

The University is a founding partner of the Centre for Digital Trade & Innovation (C4DTI) a Teesside-based international Chamber of Commerce initiative, supported by the Tees Valley Combined Authority, to deliver benefits locally, nationally and on a global stage.

The aim of the C4DTI is to make trade cheaper, faster and more sustainable through digitalisation, becoming the UK champion of interoperable ecosystem, through legal assistance, pilots and research.

Find out more about [C4DTI](#).



PACK FOR GOOD CAMPAIGN

BRITISH HEART FOUNDATION AND TEESSIDE UNIVERSITY

TEESSIDE UNIVERSITY SUCCESS STORY

**over
£54,000
TOTAL
RAISED**
from your fantastic
donations

**96
TONNES**
diverted from landfill
equivalent of over 1000 kg
of Co2 emissions.

**FUNDING
LIFE-
SAVING
RESEARCH**
into heart and circulatory
diseases across the UK

How your donations make a difference...

Heart transplants. Clot busting drugs. Pacemakers. Breakthroughs born from visionary medical research. Research you fund with your donations.

Heart and circulatory diseases kill 1 in 4 people in the UK. They cause heartbreak on every street. But if research can invent machines to restart hearts, fix arteries in newborn babies, build tiny devices to correct heartbeats, and give someone a heart they weren't born with – imagine what's next.

We fund research into all heart and circulatory diseases and their risk factors. Heart attacks, heart failure, stroke, vascular dementia, diabetes and many more. All connected, all under our microscope. Our research is the promise of future prevention, cures and treatments.

Partnering with us in our Pack for Good campaign enables our shops to receive a regular supply of donations during the summer period, a time typically, when donations can be lower than in other seasons. By joining our Reuse Revolution you're helping to save items from landfill, preventing unnecessary waste and carbon emissions being released into the atmosphere whilst also helping to fund research into new treatments for heart disease, stroke, vascular dementia and diabetes.



MIMA MIDDLESBROUGH INSTITUTE OF MODERN ART

About MIMA

MIMA connects art, people and ideas to empower creative lives and positively contribute to society. An international art gallery and museum, we commission, collect and re-think modern and contemporary art. We build and celebrate creativity. We empower change towards an open and inclusive future. As the artistic heart of the School of Arts & Creative Industries at Teesside University, MIMA is dedicated to collaborative learning, research and innovation.

An accredited museum, we are home to the Middlesbrough Collection of 2,300 works of art and craft, which date from the 1870s to today. Creative, innovative and influential, MIMA works in partnership to produce new artistic work that is locally and internationally relevant and recognised.

As a visitor attraction, MIMA forms a key part of the Tees Valley's cultural ecology and tourism economy. MIMA is engaged in transforming the cultural lives of people living and working in Middlesbrough (Levelling Up for Culture Place) and the Tees Valley (Priority Place).

We make creative, civic space and put art into action. MIMA is a public hub that works as a broker to improve social and creative infrastructures across the Tees Valley. MIMA supports children, young people and adults to develop creative lives through imaginative engagement, which supports wellbeing and social connectivity. MIMA provides routes into learning and training and nurtures people from diverse backgrounds to develop creative careers.

MIMA and climate responsibility

MIMA's programme is driven by a mission to advocate for climate responsibility by activating research from Teesside University to make change with communities.

Since 2018, our exhibitions have focused on environment. MIMA's Garden, developed with CIC Barefoot Kitchen and our Kitchen Garden artist residency, promotes biodiversity and wellbeing. We are a key partner in Natural Futures: a pilot programme with Tees Valley Nature Partnership, Natural England and Borderlands.

MIMA's environmental thematic

MIMA has narrated and explored the natural environment through a series of major exhibitions since 2018, the most recent being Chemical City (2021-22), which inspired our series of podcasts, An Artist and a Planet, developed in collaboration with academics across the University, including environmental sciences, biology and design. We launched our pilot episode to celebrate our Chemical City exhibition and to mark Earth Day in April 2022.

Listen [here](#) to the podcasts.

Members of the MIMA team also teach on environmental issues in the fields of science communications and cultural geography, across Teesside University

MIMA and Julie's Bicycle

We are welcoming a new approach to our environmental values through work with Julie's Bicycle. Designed for Arts Council England National Portfolio Organisations, the programme aims to reduce environmental impacts and drive action across the arts and culture sector.

Julie's Bicycle, launched in 2012, builds literacy, confidence and leadership skills to give cultural professionals the agency to act on climate change and champion justice and fairness. The Arts Council England 2020-30 Strategy, Let's Create, is built around four investment principles, including environmental responsibility. Find out more [here](#).

Art + Social

Art + Social is a series of events which bring our communities, staff and students together through curated events and environmental themes, including showcasing research.

Art + Social 5 (August 2022) showcased Barefoot Kitchen, who care for the MIMA Garden and MIMA Kitchen, plus garden artist in residence Laura Wilson. Barefoot Kitchen celebrated and shared the magic of food through a seasonal dish with ingredients harvested from the garden, carrying zero food miles from plot to plate, seed to flower.

Black Lives and Histories

A weekly reading, watching or listening recommendation was provided to all staff across MIMA and the School of Arts & Creative Industries. The broad purpose is to build learning about black lives and histories and equity, including a focus on black experiences with the natural world.

Borderlands

MIMA is a member of the Borderlands consortium, made up of MIMA, Tees Valley Nature Partnership, Middlesbrough Football Club Foundation, North Star Housing and Future Regeneration of Grangetown. Borderlands is a Creative People and Places project funded by Arts Council England, Tees Valley Combined Authority, Middlesbrough Council and Redcar and Cleveland Council.



SUSTAINABLE TRAVEL AND CYCLING

The University offers a range of options to staff to assist with using sustainable methods of transport to travel to the University. These green travel initiatives, which continue to be popular with staff, not only help to reduce the University's carbon footprint but are also beneficial to staff from a wellbeing and cost saving perspective.

CURRENTLY AROUND 50 STAFF ARE SIGNED UP TO THESE INITIATIVES

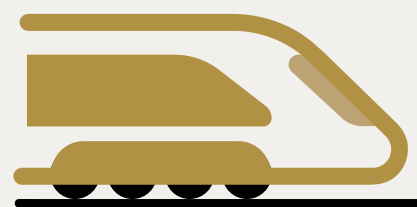
Cycle to work scheme

Since 2017, over 200 staff have obtained bicycles via this scheme.



Train season tickets

Since 2017, over 120 staff have purchased season tickets via the partnership scheme with Northern Rail and Teesside University.



Bus season tickets

Since 2017, over 120 staff have purchased bus season tickets via the University's dedicated loan scheme.



Cycling at Teesside University

Following an extensive audit by cycling UK, Teesside University continues to hold the highest possible accreditation of gold standard, as a cycle friendly employer.

CFE-UK (cycle friendly employer accreditation) is awarded to organisations that have exemplary cycle-friendly facilities. With partners in nine European countries, CFE-UK enables measurement against the only international standard for workplace cycling.

Cycling UK has championed the cause of cycling for more than 140 years. They promote all forms of cycling, protect the interests of existing and would-be cyclists, and inspire people of all ages, backgrounds and abilities to discover the joys of cycling. As an independent, democratic and expert organisation, their activities reflect the commitment of members, volunteers and partners to make cycling mainstream, making a lasting difference to the lives of individuals and communities.

The University continues to make improvements to our facilities for student and staff cyclists. In recent months the Clarendon cycle store and shower facilities have undergone refurbishment to make them more attractive for users.

Find out more about the facilities available for staff and student cyclists on campus: tees.ac.uk/cycling

Green Car Lease

In 2023 Teesside University signed up to the Tusker car benefit scheme which offers eligible staff the opportunity to lease a brand new electric or plug in hybrid car for a fixed monthly amount, offsetting some of the employee's gross salary before tax. By offering financial savings to staff, the scheme makes sustainable, low carbon travel and commuting more accessible. 22 members of staff have signed up to the scheme, 81% of these cars are electric and 19% petrol hybrid.



SUSTAINABILITY IN THE CURRICULUM

ENVIRONMENT IN THE CURRICULUM

[BSc \(Hons\) Environmental Science](#)

[BSc \(Hons\) Environmental Science \(with Foundation Year\)](#)

[MSc Electrical Power and Energy Systems](#)

[MSc Electrical Power and Energy Systems \(with Advanced Practice\)](#)

[MSc Environmental Management](#)

[MSc Environmental Management \(with Advanced Practice\)](#)

RESEARCH

In the academic year 2022/23 the University had dedicated funds totalling £991,689 to environmental and sustainability research.

Over the same period the University has had in the region of 80 scholarly publications on environmental and sustainability published.

UNIVERSITY OF INDONESIA GREENMETRIC WORLD UNIVERSITY RANKINGS 2021

For the sixth time Teesside University has taken part in the GreenMetric World University Rankings. It is the first and only university rankings in the world to measure each participating university's commitment in developing an environmentally friendly infrastructure. The rankings consider six indicators of each university (setting and infrastructure, energy and climate change, waste, water, transportation and education). This year 956 universities in 79 countries participated, compared to last year when 780 universities in 76 countries took part.

Universities Indonesia (UI) released the result of UI GreenMetric World University Rankings 2021 in December 2021.

This year 1,050 universities in 85 countries participated, compared to 956 universities in 79 countries last year.

Universities Indonesia (UI) released the result of the UI GreenMetric World University Rankings 2022 in December 2022.

This year Teesside University are ranked 334th out of 1,050 worldwide institutions (6th in UK), compared to 269th out of 956 in 2021.

The new rankings will be published in December 2023.

The full results of the metric can be viewed here:
<http://greenmetric.ui.ac.id>



Teesside
University
The Curve

This publication is available in alternative formats on request.
Please contact Finance on **+44 (0) 1642 342720** or email **finance@tees.ac.uk**.