



DE MONTFORT UNIVERSITY
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DE MONTFORT UNIVERSITY,
THE UNITED NATIONS AND SUSTAINABILITY



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WORKING TOGETHER FOR A SUSTAINABLE FUTURE

Sustainability and climate change are the biggest challenge facing humanity and De Montfort University is committed through its actions to making a difference.

This is why the university will be represented at COP 28 and we will have a pavilion in the Blue Zone, where world leaders and policy-makers will be gathering to decide on actions that will affect all our futures.

Our academics and researchers will be showcasing the university's research into climate change and sustainability and we will be adding our voice to the growing need for action. This university, along with the city of Leicester, has been at the forefront of research into climate change, energy use and sustainability since the United Nations Earth Summit in Rio de Janeiro and Leicester became Britain's first Environment City in the early 1990s.

We have also been working with the United Nations towards the Sustainable Development Goals, or SDGs, which were introduced in 2015 with the aim of improving the lives of millions by 2030.

The university's work received the endorsement of the UN when it was made the UNAI global hub for SDG 16 to promote peace, justice, and strong institutions in 2019. It was – and still is – a huge honour to be the only higher education institution in the UK to be a global hub.

SDG 16 is an important goal; without peace, justice, and strong institutions it is impossible to realise the other goals. We only need to look at the war in Ukraine to see how the lack of peace can demolish hopes of achieving the other goals.

Being a UNAI global hub is also a big responsibility – and one we take very seriously. This university provides the central focus for efforts around the world on SDG 16 in research, information, and sharing good practice through the United Nations Academic Impact.

This university is also about exposing students, staff, and the general public to work on all the SDGs and empowering them to do something about them.

The SDGs have been embedded across our research, teaching and learning practices raising awareness of the goals, their targets and helping mobilise actions.

We have taken action across the university's estate to reduce our emissions and have improved recycling rates to 90%, introduced clean energy by installing solar panels and energy-efficient heat pumps in buildings, and have even grown our own vegetables for use in our catering outlets.

All of this work has been recognised in the Times Higher Education Impact Rankings and to have our work in five of those SDGs ranked in the world's top 100 is an outstanding achievement. We can all make a difference.

Professor Katie Normington
Vice-Chancellor
De Montfort University



16TH



WORLD TOP 100 FOR SDGS

De Montfort University has been recognised for its work on the United Nations Sustainable Development Goals (SDGs) with five listings in the world's top 100 universities.

The Times Higher Education University (THE) Impact Rankings are the world's first global attempt to measure and document evidence of universities' impact on society and the environment, in addition to research and teaching. DMU's success in the world rankings were:

- 16th in the world for SDG 12 Responsible Consumption and Production.
- 25th in the world for SDG 16 Peace, Justice and Strong Institutions.
- 60th in the world for SDG 11 Sustainable Cities and Communities.
- 76th in the world for SDG 17 Partnerships for the Goals.
- 99th in the world for SDG 10 Reduced Inequalities.

The complex formula for the overall rankings, which takes into account the previous year's data, meant that DMU was just outside the top 100 universities world-wide in the overall rankings. This year's results were a marked improvement from the previous year when DMU had been placed 30th for SDG 12, 101-200

for SDG 16, =90th for SDG 11, and 101-200 for SDGs 17 and 10.

The 2023 results were even more impressive as the THE Impact Rankings included the largest ever number of universities with a total of 1,591 institutions from 112 countries, up from 1,406 in 106 countries previously. Mark Charlton, the Associate Director of SDG Impact at DMU, said: "The results are an accolade to the tremendous work being done by many hundreds of staff and students to incorporate the SDGs and sustainability into everyday life at DMU. "As the United Nations Academic Impact hub for SDG 16 to be one of the top 25 for our work on peace, justice and strong institutions is really pleasing. To be the 16th in the world for our work on responsible consumption and production is truly outstanding and recognition of the university's Net Zero commitment work."

The rankings employ indicators to provide comprehensive and balanced comparisons across four broad areas: research, stewardship, outreach and teaching. Universities are also measured on research, publication of sustainability reports, proportion of recycled waste and operational measures including a number of policies on ethical sourcing of food, disposal of hazardous waste, use of plastic, and measurements of waste sent to landfill.



25TH



60TH



76TH



99TH



THE GLOBAL HUB FOR SDG 16

De Montfort University is the only higher education institution in Britain to be a global hub for a Sustainable Development Goal (SDG) and one of only 17 around the world.

Since 2019, the university has been the United Nations Academic Impact hub for SDG 16 to promote peace, justice, and strong institutions with a series of aims and targets established by the United Nations and endorsed by all 193 member states.

Professor Simon Oldroyd, the Pro Vice-Chancellor for Sustainability at DMU, said: 'It is a massive accolade to be the only global hub in Britain and a massive endorsement of our work.'

'We are honoured, but there is also a huge responsibility that we constantly strive to fulfil.'

It is DMU's role to act as a hub for research, information, and good practice into SDG 16 and also to increase awareness of all the goals to students, staff, and the general public.

SDG 16 looks to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.

De Montfort University takes its responsibility to all the SDGs seriously and there is significant research in all areas, particularly SDG 13 Climate Action.

On the following pages, we will introduce you to our team of academics and researchers at COP 28 and showcase some of DMU's research into SDG 13.

MEET THE DMU RESEARCH TEAM

De Montfort University will be showcasing its climate change research through ten academics and postgraduate researchers during COP 28 in Dubai.

Professor Raffaella Villa will be talking about her work on the fatbergs in our sewers created by the grease, oil and fats poured down the drain.

As climate change increases the frequency and severity of extreme weather events, such as heavy rainfall and flooding, fatbergs will put more pressure on sewer and wastewater systems.

In the UK alone, dealing with fatbergs costs £20million every year as water companies send teams in to break down the hard deposits.

She is researching how the fatberg deposits grow bigger over time, and is using AI and image processing to make that clean-up process more efficient and help mitigate their contribution to climate change. The AI also helps identify fatbergs at an early stage, where they could be simply washed away, before they became hard deposits and need chemicals and drilling to remove.

Professor Muiyiwa Oyinlola's work is featured on **page 9**.

Computer scientist Dr Lipika Deka is part of a project called OPTIcut which uses artificial intelligence to boost banana production and help save wasted fruit, which costs more than a billion dollars a year.

Lipika is the co-investigator of the project which is being trialled in Costa Rica and may soon be ready to be used commercially to help banana growers make huge savings. OPTIcut uses AI and 3D image processing algorithms to provide optimised cutting and fruit profiles tailored to each farm.

The banana industry is worth around \$25billion a year and the work by the DMU team has implications for not only Costa Rica but the world's biggest producers in India, China and Indonesia.

Doctoral researcher Kedar Mehta's work is aimed at establishing energy transition in the world's developing nations.

While the methodologies for addressing climate change are available for the developed world, the scientific knowledge necessary for sustainable energy transition is often lacking in developing nations.

This presents those nations with significant challenges on climate change over and above those faced by the developed nations. The energy supply work involves designing and analysing energy systems for unique climatic and geographic conditions and a bridging model aims to balance energy demand and supply by introducing carbon emission trading.

PhD researcher Jennifer Dranttel's work is featured on **pages 12-13**.

Climate change is making seasonal allergies and respiratory illnesses more prevalent with respiratory and vocal health impacted and resulting in a knock-on to people's mental wellbeing.

Researcher Kate Cubley's work has shown that these physical and mental problems are affecting people's cognitive ability and the result can often be an increase in sick days and stress. Kate is a vocal coach and PhD researcher evidencing how practical breathing exercises can ameliorate allergy symptoms, boost vocal stamina and reduce anxiety. This enhances people's climate resilience and addresses some key challenges related to human health and the healthcare system. Climate change is already impacting health, as are the emissions and pollution that contribute to this phenomenon.



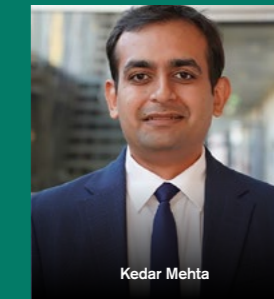
Prof Raffaella Villa



Prof Muiyiwa Oyinlola



Dr Lipika Deka



Kedar Mehta



Jennifer Dranttel



Kate Cubley



Silifat Okoya



Prof Farukh Farukh



Emmanuel Odumosu



Ogemdi Anika

Kate's work looks at the rising cases of allergic rhinitis, pollen allergies, thunderstorm asthma and food allergies.

PhD student Silifat Okoya is studying how a new generation of entrepreneurs could hold the key to dealing with plastic pollution – by using waste products to power up new businesses.

She is working with universities in Nigeria to help build capacity and capabilities among university students and lecturers to support entrepreneurial activities and social enterprise, and move towards a circular plastic economy.

Through interviews, workshops and events with university students and lecturers, she is working to identify the best ways to encourage students to be part of this new economy – and share those findings with policymakers.

Professor Farukh Farukh's work is featured on **pages 10-11**.

Emmanuel Odumosu's research focuses on sustainability in the 11,000 companies that makes up the UK's food and beverage industry.

The doctoral candidate's research uses the digital technology within the framework of Industry 4.0 to measure sustainability using block chain, artificial intelligence, and radio frequency identification (RFID). Emmanuel's work specifically targets the digital supply chains in the food and beverage sector, not only making the businesses themselves more sustainable but also helping to reduce transportation and even save on the printing of labels.

PhD researcher Ogemdi Anika's work is featured on **pages 12-13**.

A PROUD HISTORY OF ACTION ON CLIMATE

The city of Leicester and De Montfort University have a proud history of working towards sustainability and action on climate change.

Leicester was designated the first Environment City in 1990 and, in 1992, was one of just three European cities selected to be represented at the United Nations' Earth Summit in Rio de Janeiro.

In 1996, it was selected as a European Sustainable City.

De Montfort University was at the forefront of much of that work and the Institute of Energy and Sustainable Development (IESD) was formed in 1995 as the university had become 'the research arm of the city', according to its former director Professor Paul Fleming.

Research was carried out on energy monitoring, ventilation in buildings, solar energy, electric vehicles and air quality monitoring, with volunteers walking around the streets of Leicester carrying a backpack of monitoring equipment.

There was substantial modelling on ventilation and energy use in buildings and future energy scenarios were also modelled in the effort towards a low carbon future.

There were concrete results that can still be seen in the city today. All of Leicester's secondary schools were rebuilt incorporating university research on ventilation, light, and energy efficiency.

The Building Schools for the Future programme not only advised on low carbon scenarios, but worked with pupils and the wider public to ask what they wanted to see in their schools – the result was lots of daylight, decent ventilation, and extensive grounds.

The university was all the first to introduce interdisciplinary Masters courses, which could be taken as a distance learning programme, into sustainable development in the late 1990s that has since been taken by thousands of students across the world.

This course recognised that climate change and the action needed was not just technical but included elements of economics, politics and even psychology as people's attitudes were an important aspect of the debate.



OUR PLASTIC REALLY DOES NOT NEED TO BE WASTE

Plastics pollution is a huge contributor to climate change. Every stage of the plastics process harms the environment, from the energy used to make them to the greenhouse gases released as they decompose.

Up to 12 million tons of it enter global oceans annually, where it kills marine life, piles into enormous garbage patches, and crumbles into microplastics that resurface in drinking water.

Professor Muyiwa Oyinlola, director of DMU's Institute for Energy and Sustainable Development, is working with partners around the world to look at how we can use plastic waste differently. The idea is simple – instead of seeing plastic as waste, what if it could be repurposed into products that can be put to good use in communities?

Professor Oyinlola's projects have been supported by organisations including the British Council, the Innovation for African Universities network, and the Royal Society for Engineering.

"In order to sustainably tackle plastic pollution in Africa, we need to do things differently and look at ways to grow a global network that can benefit the continent," he said.

One successful project has been the creation of a house from waste plastic bottles in Aubja, Nigeria. Professor Oyinlola worked alongside a research team that took 10,000 bottles made from PET – which can break down into microplastics and find its way into the oceans – and used them as bricks. They filled them with sand and water to give them weight and bonded them with clay and cement, and built a prototype house, working alongside entrepreneurs in Nigeria.

The cost was just 35% of the price it would normally cost to build, and a recent study found that people living in the bottle house, when compared to homes made from mud or cement, said it provided a more comfortable temperature to live in – suggesting upcycled materials such as sand-filled plastic bottles, could be a solution for affordable housing in low-income communities.

But it is not only houses which waste plastic has been used for. Professor Oyinlola is part of a project called Circular Plastics, a collaboration between three universities and one NGO in the UK with partners in Kenya, Rwanda, and Nigeria. It turns used plastic water bottles into products that support entrepreneurship in middle-income countries.

To date, six products have been launched that support self-sufficiency in sectors including farming, fishing and mobility. In Makoko, known as Nigeria's floating slum, people have to navigate waterways in dilapidated boats and leaking canoes.

Plastic bottles have been turned into suction cylinders for boat balers, that use the natural pitch and swell of the water to syphon away excess water, preventing capsizing.

In Rwanda, a customised manual picker has been designed from waste plastic to help harvest fruit with less waste.





FOOTBALL CAN HELP TO HIT GOALS AND GIVE THE YOUNG A VOICE

De Montfort University has developed a project with international partners to bring fresh thinking on how to tackle climate change in marginalised communities.

Researchers at DMU have engaged a network of football clubs from around the world along with United Nations representatives and experts in social action to better understand how the need to tackle rising global temperatures are affecting people living in challenging circumstances.

Young people from one of the most deprived estates in Leicester are using their association with football to connect with clubs in Germany, Spain, The Gambia, Malaysia, Republic of Benin and Nigeria to commit to sustainable actions for their communities.

Universities in these countries have also joined the project to help get new schemes off the ground and create a global discussion on who has agency in the climate change debate.

The project began in 2021 when Leicester Nirvana, a club of 1,000 boys and girls in Highfields, Leicester, one of the UK's poorest estates, wrote to DMU asking if researchers could help fulfil their ambition of being Britain's first amateur Net Zero football club.

Soon after Eintracht Peitz in Cottbus, Germany, learned of the project and asked to participate. A subsequent press release endorsed by the United Nations' Football for the Goals campaign, led to further international interest.

To manage engagement and support for the clubs, DMU connected with universities local to the participants and have developed new relations with researchers at Technical University in Berlin, University of Nigeria, Asia Pacific University, Malaysia, University of Duesto in Spain and others. The projects have led to new public engagement activities, student projects, and research being stimulated by the relationships.

DMU hosts regular online and hybrid meetings with collaborators and has received research funding to create and innovate an online repository where young people living in different circumstances can describe the challenges they are facing.

New research is in progress to understand the need for climate action support in some of the world's least resilient communities, with university collaborations to assess climate emissions and give marginalised groups a voice in the climate change debate.

The football clubs are being trained in how to tell their stories of climate change, using mobile phones to record voices or film clips, write stories or create art. Participants act as citizen scientists, contributing new data by publishing their stories and their opinions to the Hidden Voices of Climate Change website.

University students act as mentors helping to undertake recording, art and media creation. Cross-disciplinary researchers are also developing new fields of investigation. The project has attracted significant attention nationally and internationally with presentations to the UK Government's Environmental Audit Committee and to the UN's Football for the Goals campaign, based in New York.



COMMITTED: Leicester Nirvana's Ivan Liburd

WASTE PLASTIC RESEARCH CREATING PROSTHETIC LIMBS AS WELL AS PLASTIC BRICKS FOR BUILDING OF HOMES

Research at De Montfort University is showing how recycled waste plastic can be used to produce prosthetic limbs and create bricks for use in housebuilding.

Dr Farukh Farukh is a leading world expert in recycling and upcycling materials, and at the forefront of addressing plastic waste to combat climate change as part of SDG 13.

The crafting of artificial limbs from recycled plastic water bottles is innovative and improves accessibility to prosthetic devices while mitigating the environmental impact of single-use plastics. It is a solution that offers cost-effectiveness to healthcare providers, potentially saving substantial funds while reducing the ecological footprint of discarded single-use plastic bottles.

In his latest research, the prosthetic sockets based on this concept were developed in collaboration with BMVSS in India. The initial field trial has been successful with the feedback from patients particularly praising the comfort of the socket.

After follow-up grants from the Royal Academy of Engineering, work has taken place to further improve the technology as the socket development time was still lengthy.

After various trials and testing using different techniques, a solution has now been developed using microwave heating technology to cure the sockets within an hour.

This technique is ready to be implemented in lower and middle income economies and has already been used in India.

Dr Farukh has also pioneered using novel bricks made from domestic plastic waste, which outperform the traditional clay bricks with their insulation properties.

He said: "This development is a substantial stride towards constructing more energy-efficient buildings, lowering greenhouse gas emissions, and reinforcing climate resilience."

Following laboratory-based testing of these innovative lattice-based bricks, the team have developed mathematical models known as scaling laws to predict the thermal efficiency of these bricks.

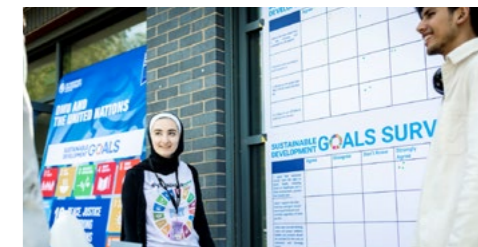
These scaling laws not only assist in forecasting brick efficiency but also facilitate the design of bricks of specific sizes with the most optimised lattice structure and cell dimensions.

These special bricks were produced on an industrial scale, taking the form of panels measuring 1 m x 1 m, using a specialised technique.

The decision to increase the size of the bricks in the form of panels was driven by the need to assess their suitability for retrofitting existing buildings, especially in Europe.

The lattice-based panels are being used to construct a model house in the Kingdom of Saudi Arabia.

This model house will provide real-life field data on the panels' efficiency in an arid climate, characterised by extremely hot temperatures in the summer and cooler temperatures in the winter.



THE POLLUTION-EATING FUNGUS SAVING THE LIVES OF FAMILIES

De Montfort University researcher Jennifer Dranttel's work is helping to save lives in one of the most polluted cities in the world which has been badly affected by climate change.

The capital of Mongolia, Ulaanbaatar, is now home to 1.6 million people – more than 60 per cent of the country's population, and the city is situated in a valley that holds on to the pollution.

Much of the population live in traditionally circular tents or gers, more commonly known by the anglicised word yurts. It is a way of nomadic life and culture and the circular ger is important as it represents the cosmos.

Many Mongolians have moved to Ulaanbaatar creating slum areas and burn anything they can in their gers as temperatures in winter can drop to minus 40 degrees Fahrenheit.

Jennifer said: "The country's problems were brought home to me when I was working as a teacher in a school in Ulaanbaatar. We always had to wear a mask indoors in the classrooms and you could sometimes look down the school corridor and only see halfway down as the pollution even indoors was so bad."

Pollution in the country, which outside of the capital is one of the less dense in the world, is attributed to one in every nine deaths. It has been recognised by the United Nations as an area of humanitarian concern.

The gers bring particular problems as people will burn rock coal, rubbish, or anything they can for fuel to keep warm, but the fumes are dangerous to health. Jennifer's experiences in Mongolia and her expertise led to research into how the harmful fumes from the fires burning in the gers could be mitigated.

She used mycelium – a fungus that eats the harmful fumes – to add to the wool lining the fabric of the ger and reduce the harmful effects.

Jennifer said: "Previous solutions were to put people in apartments, but that was not their culture over three millennia and the people did not want that. The ger had a spiritual and cultural significance to their way of life.

"This solution meant they could continue that way of life, but the harmful effects of the fires was diminished by devising a design intervention to the fibres – embedding an air-purifying lichen or algae into the felted wool – that will improve life within the ger, and still honour Mongolian traditions."

RESEARCH IS IMPROVING PROCESS TO TURN METHANE FROM COW MANURE INTO SOURCE OF ENERGY

Methane is one of the most potent greenhouse gases, fuelling climate change by trapping heat in the atmosphere, raising temperatures around the world.

One of the biggest causes comes from the farming sector, as cows release methane in manure and bodily emissions.

A recent assessment from the United Nations Environment Programme (UNEP) and the Climate and Clean Air Coalition found that cutting farming-related methane emissions would be key in the battle against climate change.

Methane now contributes more than a third of all greenhouse gas emissions into the atmosphere.

However, methane can also be an important source of energy and the manure of cows used in the generating of power.

Anaerobic digestion is a biological process in which microorganisms, including yeast, break down organic materials in the absence of oxygen to produce biogas, which is primarily composed of methane and carbon dioxide. De Montfort University PhD researcher Ogemdi Anika is investigating how to make this process more efficient, trapping more methane which is then able to be used as a renewable energy source for heating, transport, or electricity.

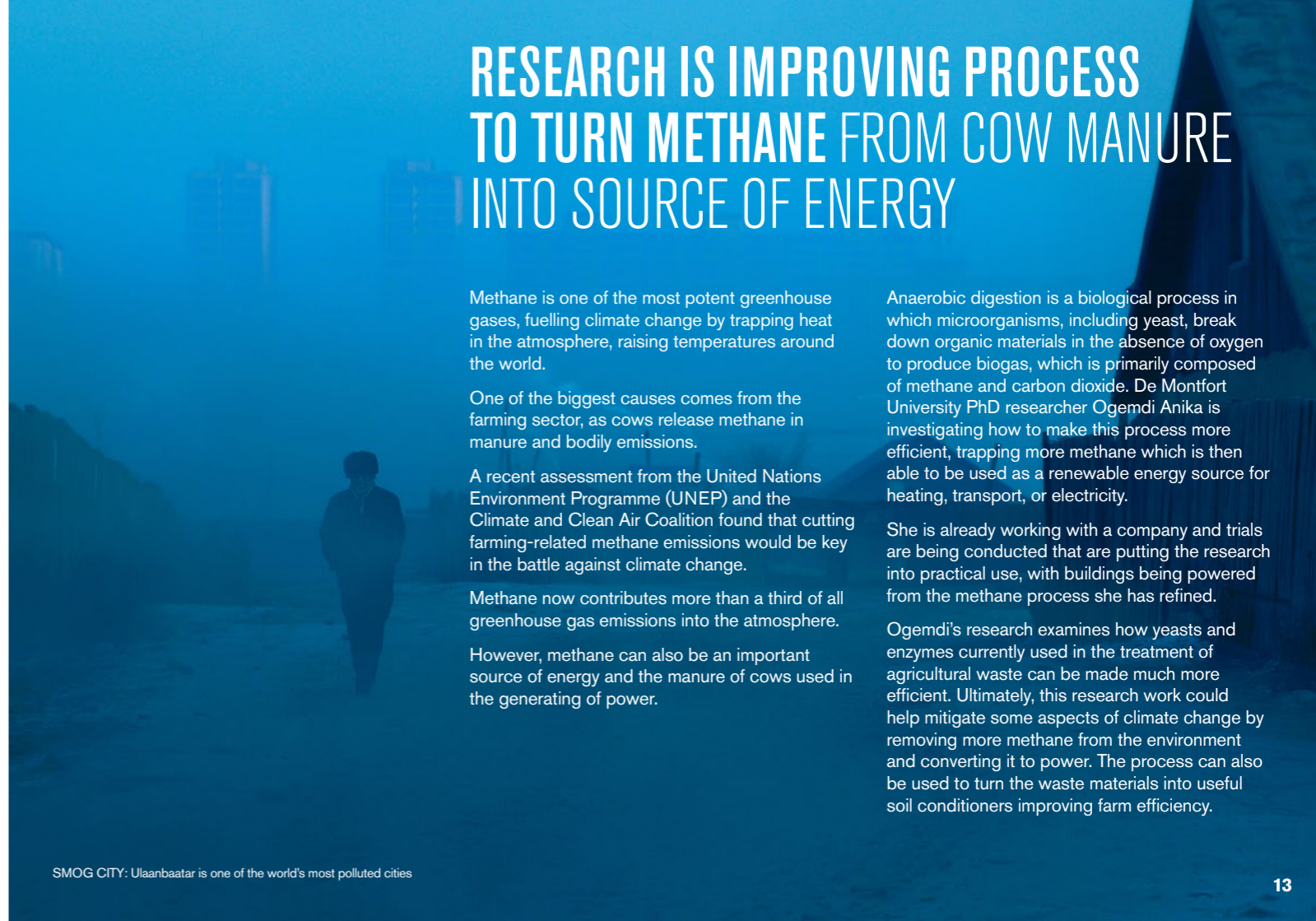
She is already working with a company and trials are being conducted that are putting the research into practical use, with buildings being powered from the methane process she has refined.

Ogemdi's research examines how yeasts and enzymes currently used in the treatment of agricultural waste can be made much more efficient. Ultimately, this research work could help mitigate some aspects of climate change by removing more methane from the environment and converting it to power. The process can also be used to turn the waste materials into useful soil conditioners improving farm efficiency.

NOMADIC LIFE: Yurts, or gers, have been a traditional part of Mongolian life for 3,000 years



SMOG CITY: Ulaanbaatar is one of the world's most polluted cities



SUSTAINABILITY EMBEDDED IN ALL ASPECTS OF UNIVERSITY LIFE

Sustainability is embedded in all aspects of operations, activities, teaching, learning, and research at De Montfort University and has been recognised in world awards.

The university was 16th in the world in the Times Higher Education SDG Impact Rankings for its work on SDG 12 Responsible Consumption and Production – a position that has been improving year-on-year from 30th (2022) and =39th (2021).

This improvement was a recognition of a comprehensive sustainability package that not only covers emissions, waste, and recycling but embeds the SDGs into teaching, learning, research, and any outreach projects.

All courses and modules were comprehensively reassessed by academics to incorporate SDGs and sustainability in teaching for all students. In fact, the university's Centre for English Language Learning (CELL) has rewritten all its course books so that English is taught by teaching students about the SDGs.

The university adopts the same principles at its campuses in Dubai and Kazakhstan, an approach that not only embeds sustainability but gives students a locally-based or closer higher

education alternative removing the need for international travel. The initiative has been given added emphasis by DMU's The Empowering University strategy aimed at empowering all students and staff to create a fairer society.

Karl Letten, DMU's Sustainability Manager, said: "The comprehensive nature of our sustainability package is important, not just for now but the future. When students are on campus they are not only learning, but experiencing sustainability.

"By embedding sustainability and the SDGs into our teaching and learning we are giving our students the skills and knowledge to make sustainable choices throughout their future careers and lives."

DMU aims to have achieved Net Zero – meaning contributing no overall increase to greenhouse gases – for energy use by 2032 and for all activities by 2045, which is five years ahead of the target set by the Government for the country as a whole.

Emissions from energy use have already dropped by 54 per cent (it is hoped to reach 60 per cent by September 2024) and the recycling rate for the university is more than 90 per cent.

However, no DMU waste goes to landfill sites as the remaining 10 per cent is used to produce waste derived fuel and is burned to provide energy.

More than 200 staff and students have been given Carbon Literacy training since De Montfort University formally acknowledged the Climate Emergency back in 2019.

The university committed to engaging its students and staff in "an awareness of the carbon dioxide costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community, and organisational basis."

Carbon Literacy training is an assessed training course which consists of eight hours of learning on climate science, carbon footprints and understanding your own ability to engage people through communications.

To pass, the course learners must demonstrate that they have an understanding of the actions that we all have to take to become a Net Zero society by 2045 and to commit to one meaningful individual action to reduce their own carbon footprint and one meaningful group action to deliver with friends and colleagues.

DMU Leicester campus achieved Carbon Literate Organisation status in 2021 and to achieve this

status members of the senior management team had pass the Carbon Literacy course. DMU Dubai achieved Carbon Literate Organisation the following year.

The university has worked with Leicester City Council to train DMU students as deliverers of Carbon Literacy training to school children and has also delivered the training to local SMEs and community groups.

The university's commitment to carbon reduction and Carbon Literacy were acknowledged in the prestigious Green Gown Awards, where DMU won the 2030 Climate Action Award.



BIODIVERSITY: The herb garden at Trinity House

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ENERGY USAGE AND EMISSIONS DRAMATICALLY DOWN DECARBONISATION PROJECT AIMS FOR NET ZERO BY 2045 AS RECYCLING HITS 90%

De Montfort University has a complete decarbonisation plan aimed at continuing to reduce emissions, waste, and energy usage to achieve its complete Net Zero target by 2045.

Energy usage has been cut by 54 per cent since 2005, but there are plans to continue to reduce this figure further. The programme of reducing demand, better insulation of buildings, tighter controls, and improved efficiency is ongoing.

Air source heat pumps are being gradually introduced into buildings, solar panels installed across the campus, and LED lighting used that should see the reduction in energy reach 60 per cent during 2024. Energy supplies purchased by the universities are all now coming from renewables and low carbon sources.

The drive to reduce emissions has meant a comprehensive plan to cut the number of students and staff commuting to the university by car.

The Smartgo Leicester scheme provides discounted travel on buses and trains as well as savings when using local cycling stores.

The university's comprehensive network of bike parks across the campus is supported by two repair stations with free puncture repair kits and inner tubes. Students are entitled to free D-locks and lights for their bikes and there is a loan equivalent available to staff.

In 2023, the university also started the Daria Project after a survey by the British Heart Foundation found that one in eight UK adults did not know how to ride a bike. The project was named after DMU student Daria Brazhnyk who documented on social media her efforts to learn to ride a bike at lessons organised jointly with Leicester City Council. Daria was the first of more than 130 staff and students who have since signed up to learn to ride a bike.

Recycling rates at the university are already more than 90 per cent, so the new drive is to cut the amount of waste created through a series of projects. One of those projects sees all furniture no longer needed stored and students, staff, local schools, and community groups are offered the chairs, tables and pedestals free of charge.

Biodiversity is also a key part of the university's sustainability programme and there is an allotment behind the Queen's building, where students and staff can grow vegetables for themselves or to donate to community groups.

The campus has also been officially designated as hedgehog friendly and two 'hotels' built, regular surveys organised, and ground staff briefed on caring for the animals. Mass bulb planting of 10,000 bee friendly species was also carried out across the estate.

One of the latest sustainability projects has been to work with the university's suppliers as more than 50 per cent of DMU's carbon footprint now comes from goods purchased. Officials are now working with those suppliers to make sure that the university's procurement policy is as green as possible.

De Montfort University campaigns to put sustainability at the heart of education and it is ranked as one of the best at doing so.

The SDG Teach In is an international campaign which is run by Students Organising for Sustainability (SOS-UK) and the annual campaign urges educators to pledge to include the SDGs within their teaching, learning, and assessments during the campaign and beyond.

Educators are encouraged to record their pledge on the SOS-UK website and to record the number of students that will be engaged through the teaching, learning and assessments. The SOS-UK record the results and publish details of the number of academics pledging to include the SDGs and the number of students engaged.

In March 2023, more than 1,284 educators pledged to include the SDGs into their education, across 23 countries globally, reaching over 121,000 students across 128 institutions, making a massive impact. DMU was ranked as the highest university in Britain with 48 educators delivering 75 learning sessions during the SDG Teach In.



PLANTING: Staff and students in the university's allotment



STUDENT QINWEN'S STORY IS REACHING MILLIONS IN CHINA

Winner Of Sdg Impact Award Is Helping Remove Stigma Attached To Eating Disorders In Homeland

Qinwen Zhang has made a difference to the stigma of mental health and eating disorders in China and is the student winner of De Montfort University's SDG Impact Awards.

The student of Global Arts Management at DMU campaigned on the dangers to young women of eating disorders and produced one of China's first documentaries on the subject. Her most popular videos since have been seen by up to 8.7million viewers and she has 300,000 followers on social media.

Qinwen's campaign began after 2018 when her weight fell to just three and a half stone, and she was hospitalised in the intensive care unit in her home city of Shanghai. Eating disorder were largely unknown and unrecognised in China at the time.

Her campaign has not only included videos, but she also formed China's first eating disorder civil society charity and curated an influential art exhibition on eating disorders in Shanghai.

NOW AND THEN: Qinwen today, left, and at the time she was seriously ill in 2018

Kofi Chukwukadibie Amanfo and Oskar Sienkiewicz were highly commended in the SDG Impact Awards for their roles as volunteers working with teenagers subject to court orders as assistant coaches at Nirvana FC, a community football club committed to climate action.

The third-year criminology students were working with the club and Leicester City's Children And Young People's Justice Service (CYPJS) supervising the work of those on reparation projects as part of a court order. Their roles were to motivate and inspire the youngsters and both saw a gradual but steady improvement in the teenagers' behaviour.

Melvin Riley, the co-founder of the Not So Micro project to promote anti-racism in teacher training, was also highly commended in the awards. He raised £75,000 for the project aimed at reforming the policy surrounding anti-racist and microaggression teacher training and to reforming Ofsted inspections to include racial inclusion.

Melvin is also the founder of Atls•Blk, a start-up social media app designed to enhance the university experience of black heritage students in the UK. The app uses cutting-edge technology such as ML, AI, and 5G to tackle key issues affecting black students, from mental health to drop-out rates.

Hikmat Abiona was inspired to help others by visits to her brother in hospital back home in Nigeria, who was suffering from sickle cell disease. In 2020, she founded Tiwa Sickle Cell Disease Foundation and its work and projects are aimed at supporting patients with their routine drugs, medical bills, and essential nutrients; creating awareness about sickle cell disease; and its sufferers. Hikmat, who also volunteers at the Comfort Centre, in Leicester, which cares for those with the disease, said during visits to her brother she would meet patients who 'ended up having mental health issues, being neglected by their families, losing hope, and not being properly taken care of by nurses when in crisis'. She aims to help those patients through her organisation.

Annabel Mwangalanyi is working towards a PhD in refugee labour market integration and is behind a project that seeks to contribute to promoting peaceful and inclusive societies by sharing knowledge, exchanging expertise, and building a community between academics, policymakers, asylum seekers, and refugees. She is working with Leicester City of Sanctuary and the Young African Refugees Integral Development, in Kampala, Uganda.

Silifat Abimbola Okoya, a research assistant in the British Council Circular Plastic Economy project at DMU, is carrying out work focused on capacity building and skills development of students and academic staff at five universities in Nigeria.

Komal Shahzadi, a final-year ICT student and the current president of Enactus DMU, founded the society's sustainability department aimed at encouraging students to take an active part in sustainability at the university and in life.



WELL DONE: Oskar Sienkiewicz, left, and Kofi Amanfo, right, are presented with their SDG Impact award by Carlos Islam, United Nations Communications Officer



WELL DONE: Melvin Riley is presented with his award by Jayashree Wyatt, Chief Education Outreach at the United Nations Department of Global Communications



For more information

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