

# United Nations Sustainable Development Goals



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UNIVERSITY OF  
ABERDEEN



**Welcome to this, our fourth annual report showcasing the work of colleagues and students from around the University and their contribution towards the United Nations Sustainable Development Goals (SDGs).**

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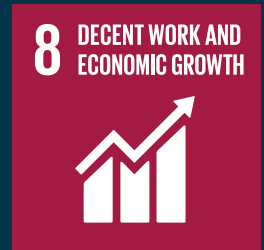
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# Welcome

**These Sustainable Development Goals (SDG) reports provide an annual opportunity to reflect on the extraordinary breadth of work that colleagues from all corners of the University are doing in support of the SDGs and we are delighted to be able to share a wider selection of SDG related stories than ever before.**

This year's report includes numerous examples of collaborative, interdisciplinary research being undertaken across the University with a variety of academic, industry and other partners. Stories featured range from the impact of the energy transition on local communities, to public and maternal health breakthroughs including the use of AI, and new insights into the very origins of biodiversity on planet Earth.

The contribution of our administrative teams also features. You'll read about the sector-leading emissions reporting work our sustainability team has led on, the development of exemplary racial equality and gender-based violence standards, and the vitally important research conducted into the University's links and legacies to the historic slave trade.

Student achievements are also celebrated, with our Students' Union sharing details of grassroots programmes that directly address issues of gender equality, poverty, waste diversion, green travel and much more, while we also take a moment to celebrate international successes for outstanding individuals, including legal advocacy students and our Paralympic swimmers.

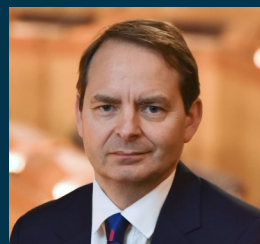
This breadth of work has contributed to the University's highest ever ranking in global sustainability league tables. 2024 has seen the Times Higher Education Impact ranking place us

= 48th globally (and 10th in the UK), while the QS Sustainability ranking saw us ranked =37th globally (and 15th in the UK). As much as anything, these outstanding rankings reflect the sustained commitment of colleagues around the University to improving the operational and policy framework in which we conduct our business, and the commitment of our academic and support staff in delivering world-class education and research that has environmental sustainability and social justice at its heart.

We are indebted to the dedication and commitment of the University community and thank everyone whose work supports the SDGs in whatever way. This report is testament to your endeavours and serves as a timely reminder that the work we do today as a community has a legacy that will last long into the future.



**Professor George Boyne**  
Principal and Vice-Chancellor



**Professor Karl Leydecker**  
Senior Vice-Principal



# Sustainability Report

**In the context of the significant headwinds facing the higher education sector, 2023/24 has seen encouraging and positive progress across a wide range of sustainability issues. Strong league table performance, the development of a comprehensive Net Zero strategy, and sector recognition of the work we are doing to enhance our emissions reporting are just some of the highlights from a busy year.**

The Sustainable Development Goals (SDGs) serve as a focus for our sustainability endeavours and our annual SDG Reports (see Image 1) continue to showcase stories from all corners of the University. In aggregate, these reports are a compelling showcase of how our academic, operational and community endeavours support the SDGs, and the breadth of content is testament to an increased awareness and willingness to embrace the SDGs in their work from all colleagues.

The sector's two main sustainability rankings saw the University consolidate the strong performance of 2023, with excellent results in both the 2024 Times Higher Education (THE) Impact and QS Sustainability rankings. Key rankings included:

- =48th globally in THE Impact (up from 70th) and 10th in the UK
- =37th globally in QS Sustainability (up from 64th) and 15th in the UK

The Impact ranking was based on SDG 17 "Partnership for the Goals" (=75th), SDG 16 "Peace, Justice and Strong Institutions" (67th), SDG 12 "Responsible Consumption & Production" (56th), and SDG 10 "Reduced Inequalities" (=17th). With 1,963 institutions now ranked, this is our most successful showing in this scheme to date (see Figure 1). The inclusion of a sustainability component in the main QS World University Ranking further reinforces the mainstreaming of sustainability as a critical strand in how institutions are compared internationally.

In emissions reporting terms, we have again embraced the trend of recent years by expanding and enhancing our approach. This year's data will, for the first time, include emissions from refrigerant gases, student commuting, and hotel stays, as we continue to make every effort to report comprehensively

across all sources and Scopes of emissions.

Our 2023/24 Public Bodies Climate Change Duty (PBCCD) Report shows positive trends across all three emissions Scopes. While the inclusion of new categories of emissions makes direct comparison difficult, like-for-like emissions are substantially down on 2022/23. After two winters with significant energy supply and security concerns, as well as price instability, reductions in energy-related Scope 1 and 2 emissions reflect a concerted energy management effort to optimise the heating and lighting of buildings. Scope 3 emissions (i.e. indirect emissions linked to issues like travel and procurement) have also seen sizable reductions, in part reflecting the institutional effort to reduce spend across all budgets in 2023/24.



Image 1: Cover of 2022/23 SDG Report



Image 2: Cover of Net Zero Strategy





We have also received welcome recognition for two emissions reporting projects. Our Student Relocation Tool has been embedded as a sector 'standard' for calculating emissions linked to student travel, while our Sustainability Dashboard (see Figure 2) is a publicly available repository for all our emissions data and has generated interest from the sector, notably in Scotland where there is a duty to report emissions publicly. Both initiatives have shown sector leadership, with both showcased at sector events and recognised in national awards. The tool won a Higher Education Strategic Planners Association (HESPA) Innovation Award and has been shortlisted for an Outstanding Contribution to Environmental Leadership award by Times Higher, while both it and the dashboard were nominated in the 2024 Green Gown Awards.

A significant operational milestone this year has been the development of our first substantive Net Zero Strategy (see Image 2). Due to be finalised by the end of 2024, this comprehensive document will serve as the basis for a long-term approach to emissions reduction. While the challenges of net-zero are considerable, not least funding the scale of infrastructure and other campus improvements required to get there, the strategy sets out a series of decarbonisation pathways and establishes clear targets and a robust reporting baseline that will frame our journey. The work done in developing this framework will also ensure that we comply with an expectation from the Scottish Funding Council that institutions outline their approach to net zero by the end of 2024.

A critical part of the whole institutional approach to sustainability is finding ways to engage and empower our communities, encouraging them to embrace sustainability as part of their work and study. 2023/24 has seen numerous efforts to enable participation in sustainability initiatives.

These have included:

- Engaging with lab technicians following our green labs Climate and Sustainability Assembly (CSA) and joining the widely recognised Laboratory Efficiency Assessment Framework (LEAF);

- Developing a comprehensive campus Biodiversity Policy and trialling alternative grounds management methods to support biodiversity across our campuses;



Figure 1: THE Impact Ranking - Performance 2019-2024

- Developing a reporting framework to encourage our Schools and Professional Services to identify local sustainability actions in response to an internal audit recommendation.

We have also worked to enhance the development of sustainability literacy skills, as well as embracing the wider SDG agenda through various curriculum and co-curriculum initiatives:

- Developing an in-house e-learning module for staff that aims to give all colleagues a grounding in key sustainability concepts and ideas for practical local actions;
- Finalising a new set of graduate attributes (MySkills) that, alongside career and workplace readiness, place sustainability, inclusion and global citizenship at the heart of the personal development we encourage in our students;
- Participation in the National Energy Skills Accelerator, a partnership led by North-East Scotland College with Aberdeen and Robert Gordon universities, that showcases regional expertise in the energy transition (SDG 7);



- Promotion of a unique CPD course on female genital mutilation (SDG 5) that is now available on a permanent rolling basis;
- Publication of the University's landmark report on the Legacies of Slavery has, among other issues, focussed our discussion on decolonising our education and shone a light on the status and provenance of our historic collections (SDG 4 and SDG 10).

Equalities issues have also been to the fore, with the award of a Bronze 'Race Equality Charter' for our work on racial equality issues, and the 'EmilyTest GBV Charter' in recognition of our work on prevention, intervention and support around the issue of gender-based violence; the latter named in honour of our former student Emily Drouet who took her own life after a sustained campaign of abuse from another student.

Our research portfolio continues to embrace a wide range of SDGs, with highlights including:

- Securing £600,000 of industry sponsorship to support the regional energy transition (SDG 7);
- Funding of £718,000 to research the impact of the transition on coastal communities (SDG 11);
- Public health breakthroughs in areas like the detection of motor neurone disease, and the use of AI to detect breast cancer or to reduce waiting times for joint replacement patients (SDG 3).

And in 2024/25 we will take the steps necessary to sign-up to the Concordat for Environmental Sustainability in Research and Innovation Practice.

Looking forward to the year ahead and continuing our sustainability journey, we will make further progress on a wide range of sustainability challenges, with focus areas to include:

- Exploring the issue of emissions offsetting and working towards a formal policy;
- Encouraging laboratory managers to embrace the LEAF accreditation scheme;
- Establishing how best to assess the sustainability literacy of our students;
- Embedding our Net Zero Strategy and informing decisions around funding and prioritisation.

While the challenges of sustainability are relentless and significant, we look back on 2023/24 as a year where progress was made in vital areas, and we look forward with optimism to 2024/25.



Figure 2: Screenshot from the Sustainability Dashboard



Figure 3: New graduate attributes shared as MySkills









## National school uniform guidance welcomed

A University of Aberdeen lecturer who has led influential studies looking at the regulation and cost of school uniforms in Scotland welcomed the September 2024 publication of the first ever national guidance on the issue by the Scottish Government.

Dr Rachel Shanks, Senior Lecturer in the School of Education and Director of Social Inclusion and Cultural Diversity for the University, conducted research which found that almost 20% of publicly funded secondary schools in Scotland specified an exclusive supplier for school uniform.

Her 2020 landmark study also found that 343 secondary schools (more than 96%) had a compulsory uniform – with 320 including a school tie and 235 including a

blazer, while 200 had banned the wearing of jeans.

As a result of Dr Shanks' findings, the Scottish Government committed to the introduction of formal guidance. That guidance, developed after an extensive national consultation, sets out how schools can help families by reducing uniform and PE kit costs and making school clothing more affordable. It also aims to support equality, diversity and inclusion for pupils and to encourage sustainability, for example through uniform reuse schemes.

[www.abdn.ac.uk/news/23524/](http://www.abdn.ac.uk/news/23524/)



***This guidance gives schools, parents, carers and pupils greater clarity on what can be expected in terms of school uniform and PE kit, and on ways that it can be made more affordable, for example with pre-loved items being available. It also clearly states that pupils' views should be taken into consideration and is a positive step forward in recognising children's rights following incorporation of the UN Convention of the Rights of the Child.***

Dr Rachel Shanks







## University sparks social change with £134,000 funding award

An innovative University of Aberdeen project focused on nurturing the next generation of social entrepreneurs has been awarded £133,887 from the UK Shared Prosperity Fund. The Sparking Change programme is designed to ignite a passion for social change in residents across Aberdeen, including students. The programme sees interactive workshops, inspiring guest speakers, and hands-on project development offered by the University to those with little to no experience of enterprise, innovation or entrepreneurship but who want to make a positive change in the world.

Highlighting the importance of the UN's Sustainable Development Goals, as well as mission-led organisations and businesses, the initiative aims to equip up to 180 participants with the knowledge, skills and confidence to become the next generation of social entrepreneurs.

Framed around tackling the pressing issues facing society like poverty, inequality and climate change, the programme will help delegates develop the skills and networks they need to create a better world through sustainable and impactful ventures.

The UK Shared Prosperity Fund money was allocated to Aberdeen City Council by the UK Government in 2022 for an initial three years and includes a "multiply" element that is ringfenced for activity to enhance adult numeracy skills provision. The core funding can be used across three priority areas - community and place, supporting local business, and people and skills.

Professor John Barrow, the University's Dean for Employability and Entrepreneurship, said:



***Aligned with the goals of the UK Government's Shared Prosperity Fund, our ambition with this initiative is to unleash new creativity and talent in the Aberdeen community, support the development of local business, and improve access to adult skills provision.***

[www.abdn.ac.uk/news/23161/](http://www.abdn.ac.uk/news/23161/)



*Sparking Change will bring together the next generation of social entrepreneurs. Photo by Rineshkumar Ghirao on Unsplash*





## Green Gown 'Impact' award for hemp research

The University of Aberdeen was named winner of the 'Research with Impact – Institution' title at the prestigious UK and Ireland Green Gown Awards in late 2023.

Held in association with UKRI, the Green Gown Awards recognise exceptional sustainability initiatives being undertaken by universities and colleges around the world. The University was recognised for the research and knowledge exchange led by a research team at the Rowett Institute which has underpinned a resurgence in the Scottish hemp sector.

Researchers found hemp seed-based foods have an excellent nutritional profile with several health-supporting benefits. Taking the findings forward, they were pivotal in creating a sector-wide association, to align and galvanise all aspects of the supply chain for a thriving hemp industry.

The broad range of products offered from all parts of the plant - healthy food, materials, biofuel - supports a zero-waste circular green economy. By working directly with producers and processors, the team are helping to regenerate the

Scottish hemp industry as a tangible solution to directly address challenges in health, climate and economy.

Hemp grows well in Scotland while offsetting greenhouse gases and maximising biodiversity and the team have explored the potential of markets for Scottish hemp making clear recommendations to Scottish government.

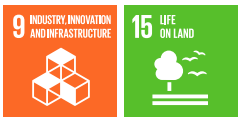
Speaking more recently about the research on BBC Radio, Dr Madalina Neacsu, a Senior Research Fellow, noted the beneficial effects of ingesting hemp. Their research has found that people who include hemp derived foodstuffs in their diet have very low hunger scores. It appears that hemp really benefits a lot of gut hormones and modulates those that are key in regulating our sugar metabolism.

[www.abdn.ac.uk/news/22571/](http://www.abdn.ac.uk/news/22571/)



Professor Wendy Russell and Dr Madalina Neacsu





## Plant pathology research to tackle crop blight

Biotalys, an agricultural technology company developing protein-based biocontrol solutions for crop protection, has entered into an academic collaboration with leading researchers in plant pathology at the University of Aberdeen.

Biotalys is developing a series of bio-controls to support growers in protecting their crops from pests and diseases. The company's R&D programme BioFun-4 was initiated last year to develop a bio fungicide against *Phytophthora infestans*, an oomycete (water mould) that causes late blight/potato blight, a serious disease that particularly affects tomatoes and potatoes.

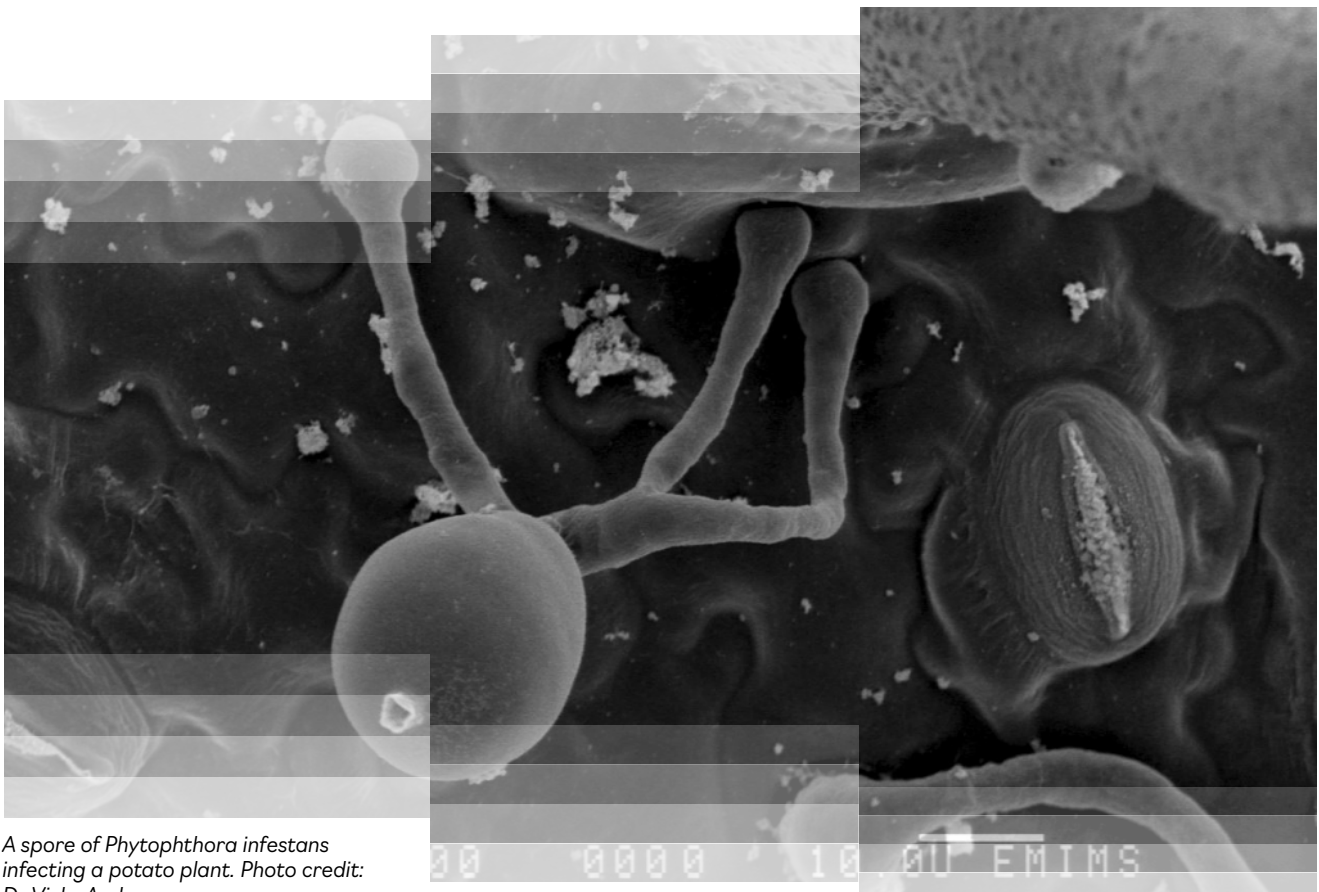
The research collaboration agreement will see Biotalys sponsor a three-year PhD project in the Aberdeen Oomycete Laboratory of Professor Pieter van West, Chair in Mycology at the School

of Medicine, Medical Sciences and Nutrition, and a leader in the field of plant and animal pathogenic oomycetes. The project will deepen the expertise in oomycetes at the molecular level.

Professor van West said: "We are delighted to partner with Biotalys on developing sustainable solutions to combat late blight in potatoes. Biotalys is a young company developing novel and exciting solutions for a very important disease that has been with us since the Irish potato famine in the 1840s."

Biotalys also announced collaborations with the Universities of Lisbon and California-Davis related to BioFun-7, its ongoing R&D programme in partnership with the Bill & Melinda Gates Foundation and which focusses on developing bio-controls against leafspot disease for cowpeas and other legumes.

[www.abdn.ac.uk/news/22797/](http://www.abdn.ac.uk/news/22797/)



A spore of *Phytophthora infestans* infecting a potato plant. Photo credit: Dr Vicky Anderson



3 GOOD HEALTH  
AND WELL-BEING



## Diagnosis and treatment breakthroughs for Motor Neurone Disease

Studies at the University of Aberdeen have helped to develop pioneering new methods in the diagnosis and treatment of Motor Neurone Disease (MND) and other brain diseases.

Scientists from the University, in collaboration with the University of Edinburgh and international partners, have identified a new way to detect signs of MND in brain tissue that can pick up indicators earlier and with more sensitivity than current tests. Using a molecule known as an “aptamer”, which has already revolutionised cancer diagnostics, the team have successfully applied it to MND detection in brain tissue samples.

Dr Jenna Gregory, (pictured) Senior Clinical Lecturer in Applied Medicine said: “This tool ‘targets’ the disease protein and allows us to see where toxic clumps are building up in the body. It can do this for much lower amounts of disease proteins, and with greater accuracy than ever before. This could be a game-changer for MND research, diagnostics and treatment.”

Meanwhile, other new research led by the University of Aberdeen has found, for the first time, that drugs that ‘switch on’ vitamin A in the body may also help stave off conditions that lead to deterioration of the brain, including MND. Specifically, when disease conditions were simulated in the laboratory, the team found that super-activation of the vitamin A signalling system helped protect against the damage that can occur in diseases such as MND.



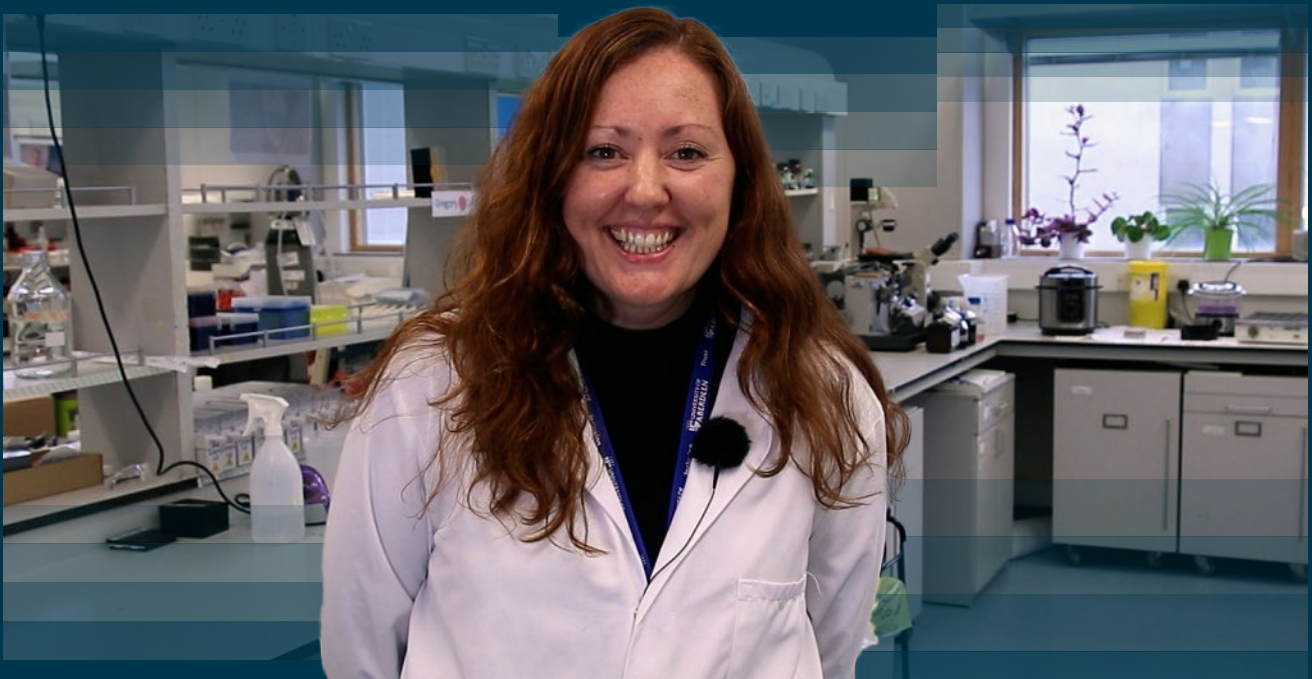
***We discovered that these drugs bind and turn on a key protein involved in activation of vitamin A in the body. Our research provides the first steps to identify new targets for drugs that may then lead to future therapies.***

Professor Peter McCaffery,  
Chair in Medical Sciences



[www.abdn.ac.uk/news/22988/](http://www.abdn.ac.uk/news/22988/)

[www.abdn.ac.uk/news/23545/](http://www.abdn.ac.uk/news/23545/)





### 3 GOOD HEALTH AND WELL-BEING



### 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



## AI harnessed to improve patient outcomes and diagnostics

University of Aberdeen researchers are exploring how Artificial Intelligence (AI) can be applied in various medical and diagnostic settings to help improve patient experience, enhance diagnosis and reduce waiting times.

In one research project, AI designed to identify patients suitable for joint replacement surgery has the potential to significantly cut waiting times and improve surgical efficiency. The study found that using the Aberdeen-led AI could help to 'rapidly' and 'accurately' identify patients that are suitable for hip replacement surgery, cut waiting lists and help to ensure that the right person is seen by the right clinician at the right time.

In another study, an AI-enabled smartphone app to help skin cancer patients is being developed by scientists at the University of Aberdeen, thanks to funding of £421,000 from Cancer Research UK. The app will help those previously treated for melanoma to examine their skin regularly, reduce anxiety and help catch any recurrence

of the disease. An AI chatbot will enable users to upload high quality images and information about worrying skin changes. The project has already successfully trialled a tablet app with a group of patients previously successfully treated for melanoma.

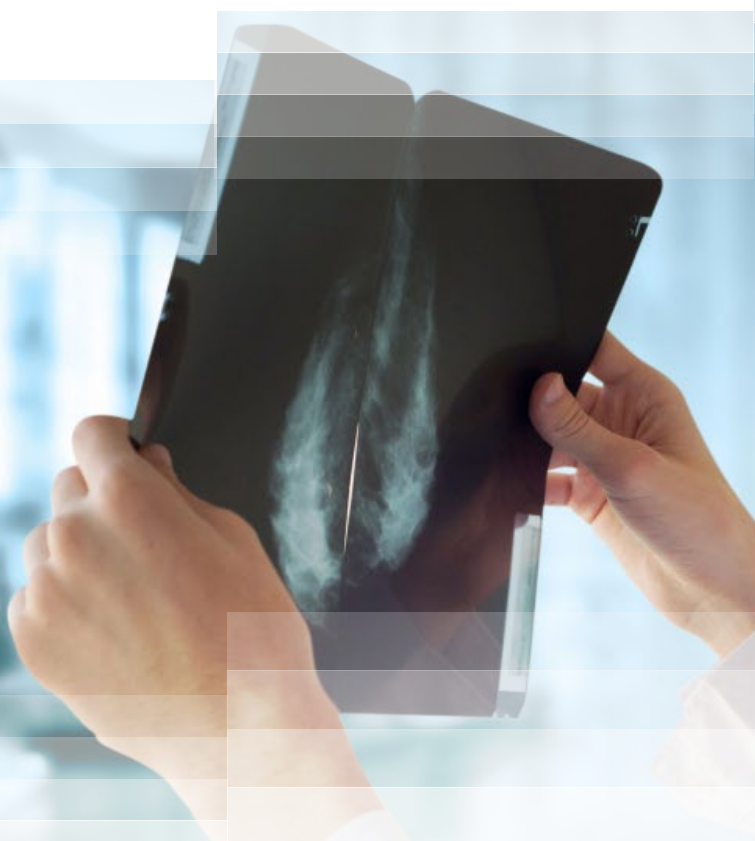
AI is also being applied to breast cancer screening, helping doctors find an additional 12 percent more cancers than in routine practice. The research, a collaboration with Kheiron Medical Technologies, NHS Grampian, the University of Aberdeen, and Microsoft, has developed an AI software called Mia that, if deployed across the NHS, could lead to better outcomes for thousands of women across the UK.

More on all these breakthroughs is available at the links below.

[www.abdn.ac.uk/news/23466/](http://www.abdn.ac.uk/news/23466/)

[www.abdn.ac.uk/news/23517/](http://www.abdn.ac.uk/news/23517/)

[www.abdn.ac.uk/news/22964/](http://www.abdn.ac.uk/news/22964/)





3 GOOD HEALTH  
AND WELL-BEING



## Aberdeen scientists identify genetic anxiety 'switch'

New research from the University of Aberdeen has identified an area of DNA in the human genome that plays a crucial role in controlling anxiety.

In the study, the team found a section of DNA that 'switches' on key genes in parts of the brain that affect anxiety levels in mice. Published in the journal, *Molecular Psychiatry*, the research, led by Professor Alasdair Mackenzie, was funded by the BBSRC, Tenovus Scotland GHI, the Medical Research Charity, and Medical Research Scotland.

According to the Mental Health Foundation, anxiety is on the increase and as many as 1 in 5 people experience anxiety 'most or all' of the time. It is also

reported that a third of patients on anti-anxiety medication do not experience sustained remission from anxiety. The team behind this study hope that further research could help improve the lives of anxiety patients by identifying a new drug target.

Professor Mackenzie observed that: "We already know that 95 percent of the genetic differences associated with disease are found outside of protein coding genes. This part of the genome, known as the 'non-coding genome' has not been well explored because we previously lacked the tools to do so."

[www.abdn.ac.uk/news/22898/](http://www.abdn.ac.uk/news/22898/)



***To understand the basis of complex human diseases that include mental illness and other conditions such as obesity, depression and addiction, it is as important to understand the mechanisms that ensure proper production of proteins in the right cells as it is to understand the proteins themselves. This will only be achieved if we better understand the non-coding genome in health and disease.***



Dr Andrew McEwan (pictured), first author on the study







### 3 GOOD HEALTH AND WELL-BEING



### 5 GENDER EQUALITY



## Innovative new drug for ectopic pregnancy to be trialled

The trialling of a new drug for the treatment of ectopic pregnancy, led by the University of Aberdeen, could help hundreds of women every year avoid emergency surgery.

Funded by a Medical Research Council (MRC) and National Institute for Health and Care Research (NIHR) partnership, the team will investigate whether a drug called mifepristone is more effective at treating ectopic pregnancy than the current medical treatment.

Around 1 in 80 pregnancies are ectopic, which means the embryo starts to grow in the wrong place, often outside the uterus and usually in one of the Fallopian tubes. As it grows, there is a risk that the Fallopian tube can burst which can lead to life-threatening internal bleeding. When this happens, emergency surgery to remove the affected Fallopian tube is usually necessary and can be lifesaving.

More recently, improved diagnosis of ectopic pregnancy has meant that some

women can be treated with medication which reduces the need for surgery. However, with current medical treatment, up to 30 percent of women will still require emergency surgery and removal of their Fallopian tube.

The research team hope this trial will demonstrate that treatment with mifepristone, which works by blocking progesterone - a key hormone of pregnancy, alongside the existing drug treatment, methotrexate, will reduce the need for emergency surgery for many women.

The trial will be led by Dr Andrea Woolner (pictured), Senior Clinical Lecturer at the University of Aberdeen, along with a team of experts from the Universities of Edinburgh, Nottingham and Birmingham, University College London, Monash University, Australia, Imperial College London and The Ectopic Pregnancy Trust.

[www.abdn.ac.uk/news/23506/](http://www.abdn.ac.uk/news/23506/)



## GP tutors and new 'Immersion Room' enhance medical training

Medical students at the University of Aberdeen are benefitting from both a new technology that recreates realistic emergency situations, as well as the experience of local GPs.

The Immersion Room, a facility that can be transformed into any clinical environment, from an operating theatre to an intensive care setting, helps put students through their paces. Patients - either interactive dummies that can speak and display symptoms, or real volunteer actors - ensure that medical students can interact and respond to a changing situation in real time. One medical student, Lily Davida, observed that "it's as realistic as you can get without actually being in the hospital."

The aim of the Immersion Room is to make the learning experience feel very real for the students and to allow them to practice techniques and develop their skills in a safe way.

Further enhancing the learning experience of the next generation of student doctors, is a fresh group of General Practitioners from across the North-east. Ten new GP tutors have joined the existing 12 to support students on medical degrees. As part-time tutors, these GPs are part of efforts to support an interactive, immersive clinical programme introduced as part of a more experiential curriculum.

<https://www.abdn.ac.uk/news/22980/>

<https://www.abdn.ac.uk/news/23571/>

**“ Our goal is to make learning systematic rather than opportunistic. We know when our students are on the wards, that not every student will see, for example, a pediatric patient or a patient in obstetrics. With the Immersion Room, we can give them the experiences that we know they need to be able to graduate as a junior doctor. ”**

Dr Craig Brown, Clinical Senior Lecturer in Medical Education







## New partnership widens access for prospective students

A range of exciting new partnership degree courses being offered by Forth Valley College and the University of Aberdeen will offer free accommodation to students in their third and fourth years, widening access for students to pursue pathways to further study in key employment sectors.

The partnership degrees are the first that the University of Aberdeen has offered in conjunction with a Scottish college and saw the first cohort enter in autumn 2024 entry. Places are linked to key government priorities such as sustainability, green energy, technology, health and science. Successful applicants start their degree studies at Forth Valley College before benefiting from free accommodation in their 3rd and 4th years at the University of Aberdeen where they will complete their degree.

The accommodation offer aims to address barriers to higher education such as financial constraints and the ongoing challenges of cost-of-living. Students will have University status from the outset, but the model allows them to study locally

for the first two years. This helps to build their confidence before progressing to university to complete their studies.

The Partnership Degree pathways link to a range of STEM-related programmes, including Animal Behaviour and Welfare; Biochemistry; Biology; Biological Sciences; Ecology; Molecular and Cellular Biology; Pharmacology; Physiology; and Zoology. Chemical, Civil, Electrical and Mechanical Engineering options are also available.

[www.abdn.ac.uk/news/23460/](http://www.abdn.ac.uk/news/23460/)



**We are delighted to be able to support the students with our free accommodation offer when they move to Aberdeen in their third year. We hope this makes the degrees a viable option for more students and allows them to experience all Aberdeen has to offer.**

Jo-Anne Murray, Vice-Principal (Education)



Professor Jo-Anne Murray and Kenny MacInnes, Principal of Forth Valley College



## University efforts to tackle gender-based violence recognised

EmilyTest, a charity dedicated to tackling gender-based violence (GBV) in education, has awarded the University the EmilyTest Charter for its outstanding commitment to gender-based violence (GBV) prevention, intervention, and support.

In a statement announcing the award, the charity indicated that "this commendable achievement is not only a testament to the University's dedication to building a safe and inclusive campus environment, but it also holds significant personal significance for us as the charity was founded in the name of Emily Drouet, a law student at the University of Aberdeen, who took her own life after a sustained campaign of abuse by a fellow student."

Fiona Drouet, Emily's mum and the founder and CEO of EmilyTest said: "We firmly believe that if Emily were a student at the University today, the outcome would have been very different. The transformation at the University is astounding and is a result of a deep commitment by strong and genuine

leadership. We believe students will now receive the help, safeguarding and support that Emily so desperately needed."



***Achieving the EmilyTest Charter Award is welcome recognition of the hard work being done at the University and I would like to thank all those who continue to support the University's commitment to promote inclusion and provide support for our community. While this achievement is something to celebrate ... we commit to continually learning in this area and enhancing our support for victim/survivors. We will never forget Emily or what happened to her in 2016, this fuels our ongoing and unwavering commitment to fight GBV in all its forms.***

Nick Edwards,  
Deputy Director of People



[www.abdn.ac.uk/news/238415/](http://www.abdn.ac.uk/news/238415/)



Fiona Drouet and Nick Edwards



5 GENDER  
EQUALITY3 GOOD HEALTH  
AND WELL-BEING

## Online course aims to eradicate female genital mutilation

The University of Aberdeen is believed to be the first University in the world to offer a free of charge, fully online course on the impact of female genital mutilation (FGM). The four-week course covers all aspects of FGM from the physiological and psychological consequences to legal aspects of health and social care. It is open to health and social care professionals, educators, police, and anyone with an interest in women and girls' health and ending the practice of FGM.

Originally launched in 2022, over 1100 learners have already participated, and it has proven so popular that from 2024 it now runs continuously rather than annually. The course was developed following a survey of UK medical schools that suggested graduating medical students felt under-prepared to deal with FGM in a professional capacity. Learners will build their understanding of FGM to help them recognise and report indicators of FGM or plans to inflict it.

FGM affects 200 million women and girls all over the world according to the World Health Organisation (WHO), but the impacts are not confined to Africa, Asia and the Middle East, where these practices originated. Despite being illegal in the UK since 1985, more than 130,000 women are estimated to be living with FGM consequences.



***The mental and physical health impacts can be devastating yet a gap in education on FGM has led to a lack of confidence among health care professionals and others to deal with this harmful practice. Ultimately, we hope that this knowledge will increase learners' confidence and help empower them to play a more active role in ending FGM.***



Dr Heather May-Morgan, Dean for Enterprise & Innovation(Education)

[www.abdn.ac.uk/news/22952/](http://www.abdn.ac.uk/news/22952/)



5 GENDER  
EQUALITY



3 GOOD HEALTH  
AND WELL-BEING



## Royal appointment for pioneering Professor

The summer of 2024 saw His Majesty The King approve a boundary-breaking appointment when Professor Mirela Delibegovic became the University of Aberdeen's first ever female Regius Chair of Physiology.

Professor Delibegovic follows in the footsteps of insulin pioneer and Nobel Prize winner JJR Macleod who held the position, which is endowed by the monarch, from 1928 to 1935.

While the discovery of insulin by Macleod's Toronto research team provided a life-saving treatment for those with type 1 diabetes, Professor Delibegovic's work has the potential to transform the treatment of people living with, or who are at risk of developing, type 2 diabetes.

She heads up the Aberdeen Cardiovascular and Diabetes Centre exploring insulin resistance and how diabetes, heart disease, ageing and Alzheimer's are woven together. Her team are working to understand what causes insulin resistance - when the body's cells don't respond properly to

the insulin made or injected leading to increased blood sugar levels - and finding ways to postpone or even reverse these conditions.

According to Diabetes UK, 13.6 million people in the UK are at risk of developing type 2 diabetes and up to half of those will already show signs of serious complications which reduce life expectancy by the time they are diagnosed.

Professor Delibegovic, who came to Scotland from war-torn Bosnia and Herzegovina in 1994, was delighted to be awarded the Regius chair.

In response to the appointment, Professor Delibegovic said:



***Following in JJR Macleod's footsteps as Regius chair is a true privilege and I hope that the work that we do here might one day have the same transformational impact as his team's discovery of insulin.***



[www.abdn.ac.uk/news/23324/](http://www.abdn.ac.uk/news/23324/)







## International Women's Day celebrates remarkable women

To celebrate International Women's Day 2024, the University of Aberdeen's Professor Mirela Delibegovic hosted an event dedicated to female boundary breakers. Professor Delibegovic's own remarkable work (see opposite page) has been recognised with a prestigious Regius Chair of Physiology, one of only two such positions in the UK.

**The Connect and Celebrate Inclusion: Breaking Boundaries** event took place in March 2024 and heard from several inspiring women working in the local region who discussed their career journeys, as well as their motivations and challenges. Professor Delibegovic welcomed:

**Dr Lucky Saraswat** - (top left) who has worked as a Consultant Gynaecologist at Aberdeen Royal Infirmary since 2014. Her clinical interests include endometriosis and pelvic pain, menstrual problems, and other general gynaecological problems in premenopausal and postmenopausal women.

**Caroline Laurenson** – (right) whose career has seen her transition from chemical engineering, where she competed as a female in a male dominated environment, to become an entrepreneur after a STEM leadership course encouraged her to think about her talents. She founded TL Smart, a company using smart technology to improve lives, especially those who are elderly or living alone.

**Hossa Skandary-Macpherson** – (bottom left) was a child in Kabul when the Afghan conflict forced her family to flee in the 1990s. Now settled in Scotland after time in India, Russia, Belgium, the USA, and the UAE, she is studying International Relations and French at the University and uses her experience and language skills to support others fleeing conflict as a charity volunteer and trustee of the Aberdeen Multicultural Centre.

Also in March 2024, the [Start Her Conference](#) aimed to inspire women to pursue their entrepreneurial dreams and to celebrate the stories of other women entrepreneurs in the region.

[www.abdn.ac.uk/news/22901/](http://www.abdn.ac.uk/news/22901/)

## 6 CLEAN WATER AND SANITATION



## Sectors warned of doubling of drought events by 2050



Key Scottish industries are being encouraged to do more to adapt to climate change after researchers found that the number of water scarcity events in Scotland could double by 2050. The study found that April/May and late August/September are expected to be noticeably drier, potentially impacting crop yields and livestock gains.

The research, led by the James Hutton Institute working in collaboration with the University of Aberdeen, and partners at Scotland's Rural College, and the British Geological Survey, focused on how climate change is impacting water availability for the farming and whisky sectors, which could be left increasingly high and dry.

In some catchments, it found that surface water scarcity events, where river levels drop to significantly low levels, could increase in frequency from one every five years to every other year – or even more often, potentially meaning more restrictions on using these waters.

Dr Josie Geris, a Reader in Geography & Environment at the University of Aberdeen, whose ongoing research focusses on nature-based solutions for water resource management, said: "In addition to adaptation strategies, there are also several solutions which could help mitigate water scarcity problems for the distilling and farming sectors. These include creating small ponds, or improved soil management designed to capture and store water in the landscape during times with high rainfall and making it available for periods when water availability is low".

Dr Miriam Glendell, who co-led the work at the James Hutton Institute, said:



***We found that, for many, water scarcity is already an increasing issue. At critical times of the year, even short periods of water shortage could lead to vegetable and fruit crop failure.***



[www.abdn.ac.uk/news/23389/](http://www.abdn.ac.uk/news/23389/)





## 6 CLEAN WATER AND SANITATION



## Space scientists to explore Martian habitability

Space scientists at the University of Aberdeen have been awarded funding to further develop their pioneering technology to evaluate the habitability of Mars.

The Planetary Sciences Group has been awarded £320,000 by the UK Space Agency to support the implementation of HABIT (Habitability: Brine, Irradiation and Temperature) an instrument developed by the researchers to measure key conditions on the planet.

It will be included on a lander expected to touch down on the surface of Mars around 2028-30. The mission will be led by the Japan Aerospace Exploration Agency (JAXA), which is embarking on a comprehensive long-term Mars exploration programme.

In addition to measuring Martian surface conditions, HABIT will attempt to produce liquid water on Mars for the first time, based on the theory that there are unique salts on the planet surface which absorb water from the atmosphere and produce liquid water at night (in the form of brines) when the temperature is lowest.

The new funding will enable University space scientists to create a unique Martian chamber - a box about the size of a refrigerator that re-creates the temperatures, pressures, and atmosphere of the Martian surface - essentially creating a Mars environment on Earth.

Professor Javier Martin-Torres, (pictured) who leads the University's Planetary Sciences Group, said:



***HABIT is designed to monitor various environmental conditions crucial for understanding the presence of liquid brine and supporting (bio)chemical reactions on Mars. It is a critical component for the mission as HABIT will work with other instruments onboard the lander to enhance the understanding of Mars' habitability.***

[www.abdn.ac.uk/news/22929/](http://www.abdn.ac.uk/news/22929/)



7 AFFORDABLE AND  
CLEAN ENERGY



## Industry invests £600,000 in energy transition research

Companies operating in the energy sector are backing the University's research into the Energy Transition to the tune of £600,000 to support the creation of a new research initiative focused on decarbonising the oil and gas sector and advancing the shift to clean energy.

Nine companies (BP, Chevron, CNOOC, ExxonMobil, Equinor, Harbour Energy, Shell, Spirit Energy and TotalEnergies and endorsed by Offshore Energies UK (OEUK)) are involved in the initiative. They are providing the funding to support training and PhD studentships as part of a new Centre for Doctoral Training (CDT) based in the School of Geosciences.

Led by Professor John Underhill, Director of the University's Centre for Energy Transition, the new initiative will focus on delivering world-class academic research to accelerate the energy transition by equipping a new generation of researchers with the skills, knowledge and expertise required to provide energy security while reducing emissions and decarbonising.

In supporting these studentships our funders have sent a strong message about the confidence industry has in the Centre's ability to progress the energy transition and support the industry's shift to a cleaner future.

Professor Underhill said: "The starting point on the journey to net zero is very challenging as oil and gas still provides three quarters of the UK's energy needs. We need to find ways to decarbonize industry at pace while supplementing this activity with carbon storage, wind farms, geothermal and other renewable technologies."

Russell Borthwick, Chief Executive at Aberdeen & Grampian Chamber of Commerce, said:



***This is a brilliant example of industry and academia collaborating to address one of the big issues facing the UK's energy sector today.***



[www.abdn.ac.uk/news/23485/](http://www.abdn.ac.uk/news/23485/)







## Major investment for vital offshore wind and CCS research



A major new project will enable test and demonstration projects designed to test the ability of offshore wind and carbon capture and storage (CCS) sites to co-exist on the seabed, a key factor in helping the UK meet offshore wind generation and CCS targets.

Researchers at the University of Aberdeen's Centre for Energy Transition have received £250,000 in investment from The Crown Estate and Crown Estate Scotland for Project Colocate – an initiative to investigate viable areas on the seabed for colocation of CCS and offshore wind, helping to create a pipeline of potential test & demonstration sites for the future.

With space on the seabed limited, colocation is a key factor in helping the UK meet offshore wind generation and CCS targets that are vital to the country's net zero ambitions.

Researchers will focus on the East Irish Sea and Central North Sea, both of which have been identified as having significant potential for future colocation of CCS

and offshore wind. Project Colocate is one of two complementary projects commissioned by The Offshore Wind and Carbon Capture and Storage Colocation Forum, which is chaired by The Crown Estate.

The other related project (Project Anemone) will establish best-practice, practical guidance for how offshore wind and CCS technologies can operate alongside each other, from construction to decommissioning.

Professor John Underhill, Director of the Centre for Energy Transition, said:



**Offshore wind and carbon capture and storage will play a vital role in the UK's net zero targets so there is a pressing need for establishing a robust workflow to assess, critically evaluate and identify suitable and viable areas of the seabed for potential colocation of offshore wind and CCS.**



[www.abdn.ac.uk/news/22547/](http://www.abdn.ac.uk/news/22547/)

## 8 DECENT WORK AND ECONOMIC GROWTH



## NESA: championing energy transition skills

The National Energy Skills Accelerator (NESA) - a collaboration between the University of Aberdeen, Robert Gordon University, North-East Scotland College, and supported by key regional partners including Energy Transition Zone Ltd and Skills Development Scotland - hosted Gillian Martin, Scotland's then Minister for Energy, Just Transition and Fair Work, in April 2024. The visit celebrated the success of NESA's Just Transition Fund (JTF) project for the north-east and Moray.

NESA was established in Aberdeen in July 2021 to prepare the workforce for the energy transition and to provide access to new skills and capabilities required for delivering the net zero agenda. It was projected to have offered over 700 individuals fully funded places on energy transition focused courses during 2023/24.

Nearly half of the courses on offer were newly developed and were designed to align with industry's energy transition requirements. With support from the Scottish Funding Council's Regional Pathfinder initiative, NESA is also helping

to better communicate energy jobs and career pathways. A pilot web-based energy career pathways tool allows individuals to visualise their own route into an energy career and highlight the different pathways and training available.

Gillian Martin said:



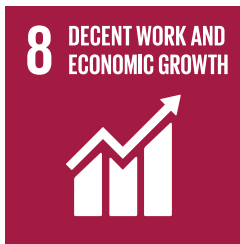
***The Scottish Government has provided £1million towards NESA's pilot energy skills programme, supporting hundreds of people access free training courses to transition to new careers in renewables. It was great to see how successful this pilot has been. Sustainable low carbon jobs are a vital part of our future, and we will support workers in the north-east of Scotland as part of our transition to net zero, which will have a positive impact on our climate and deliver a fair, green and growing economy.***



[www.abdn.ac.uk/news/in-brief/23028/](http://www.abdn.ac.uk/news/in-brief/23028/)







## Success for employability and work experience opportunities

Spring 2024 saw more than 20 students from the University of Aberdeen start paid internships with local companies, as part of a University of Aberdeen initiative to boost employability. More than 720 applications were received for the ABDN Internships programme and after narrowing down the candidates, 22 successful applicants were offered paid internships across 19 north-east businesses in three sectors: nature, culture and creative industries, and small and medium enterprises (SMEs).

The internships consist of 70 hours of paid work over seven weeks, with the interns gaining valuable industry experience, developing professional skills, making connections and learning from experts in their sector.

Gary Coull, the University's Employer Engagement Manager, said: "The University of Aberdeen is committed to expanding work-based learning opportunities for our students. Such experiences are priceless, enriching students with real-world workplace exposure, skill development and a boost in confidence."

Meanwhile, the University's work to support industrial placements was rated 15th in the Best 50 Universities for Work Experience 2024 at the national 'Rate My Placement Awards' in March. The awards saw employers and universities come together to celebrate outstanding achievements in undergraduate work experience. RateMyPlacement.co.uk is the UK's leading jobs board for students seeking paid placements and internships. Based solely on student-written reviews, the awards recognise those universities that excel in the resources and support they provide to students.

Tracey Innes, the University's Head of Careers, said:



***This award recognises the amazing amount of work we are doing to grow high quality and impactful paid internships experiences exclusively for University of Aberdeen students.***



[www.abdn.ac.uk/news/22979/](http://www.abdn.ac.uk/news/22979/)

[www.abdn.ac.uk/news/22927/](http://www.abdn.ac.uk/news/22927/)



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



3 GOOD HEALTH  
AND WELL-BEING



8 DECENT WORK AND  
ECONOMIC GROWTH



17 PARTNERSHIPS  
FOR THE GOALS



## ICURe develops next generation of entrepreneurs

Ten teams of academic entrepreneurs have become the first cohort to undertake the ICURe Discover North-East programme. ICURe is a joint initiative from Opportunity North East (ONE) and the University of Aberdeen, in partnership with Innovate UK.

The programme took researchers on an eight-week journey, to equip them with invaluable market understanding and customer discovery skills. The ambitious participants gathered at ONE BioHub in August to mark the culmination of their course and to showcase their business ideas, share key learnings and outline their next steps. This final event highlighted how the programme had shaped their entrepreneurial paths.

Jennifer Crow, CEO at Opportunity North East, said: "The level of presentations was excellent and showcased the potential and strength of the next generation of entrepreneurs in this region. Our

partnership with the University of Aberdeen and Innovate UK will continue to grow, providing further opportunities in the region and strengthening the entrepreneurial ecosystem."

Professor Peter Edwards, the University's Vice-Principal Regional Engagement, said:



***Understanding commercial potential and market interest is critical to transforming research and innovation into successful start-up businesses capable of maximising their potential and delivering tangible results. The Discover Programme is a vital addition in the University's drive to create more innovation-driven enterprises in support of regional and national economic growth.***



[www.abdn.ac.uk/news/in-brief/23434/](http://www.abdn.ac.uk/news/in-brief/23434/)







## Partnership to explore early detection of Type 1 diabetes



The start of 2023/24 saw EpitogenX announce the launch of an Innovate UK Knowledge Transfer Partnership (KTP) between its subsidiary, Vertebrate Antibodies, and Professor Mirela Delibegovic and Dr Nimesh Mody of the University of Aberdeen's Cardiovascular and Diabetes Centre. The initiative reflects a shared commitment to fostering innovation with a specific focus on the development of advanced diabetes diagnostic solutions.

Type 1 Diabetes (T1D) is often diagnosed too late and normally once the patient is hospitalised due to diabetic ketoacidosis coma. This can be life threatening and lead to further damage in the body. Currently, there are no screening tests in the UK, even though early diagnosis could help identify early-stage T1D before the onset of severe symptoms and coma. Timely diagnosis can ensure a monitoring plan is developed, or potential prevention therapies can be tested more rapidly.

Multiple autoantibodies tests are required for diagnosis, often all performed in

different hospitals, making the diagnostic process lengthy, complex and expensive. This new collaboration aims to improve and expedite testing, establishing a new standard in diabetes diagnosis.

The project, facilitated by the University of Aberdeen, will focus on the following key objectives:

- Developing an accurate laboratory-based, one-step test system to screen pre-symptomatic individuals particularly those in a higher risk category.
- Developing a rapid point-of-care diagnostic test, allowing differentiation of diabetes subtypes in symptomatic cases.
- Aiding monitoring and treatment choices, and prognosis.

Ultimately, the tests will use affordable technology easily used in basic laboratories, GP practises, pharmacies, and hospital outpatient clinics. These tests will result in assured decision-making and efficient resource utilization.

[www.epitogenx.com/point-of-care-and-screening-tests-for-early-detection-of-type-1-diabetes/](http://www.epitogenx.com/point-of-care-and-screening-tests-for-early-detection-of-type-1-diabetes/)

10 REDUCED INEQUALITIES



## Landmark report explores legacies of slavery

The foundational purpose of the University of Aberdeen is to be “open to all and dedicated to the pursuit of truth in the service of others.” In keeping with these guiding principles, a comprehensive report was commissioned in 2023/24 to assess how the University benefitted from the labour and lives of thousands of enslaved people, and the reparative steps required to acknowledge how slavery shaped it.

This landmark report details the initial steps in that process and acknowledges that further research is likely to uncover more linkages and examples of the University having benefitted from slavery. While the University may not have been directly involved in the slave trade, many graduates and benefactors were, and their legacies persist today. The report is a step towards greater understanding of these issues and is the basis for developing actions and further engagement.

Reflecting on the report, Principal George Boyne, noted that: “The connections of north-east Scotland to this trade in human suffering have long been overlooked. This report is part of ongoing work to shine a light on those connections and to confront uncomfortable truths from our past.”

Vanessa Mabonso Nzolo, Student’s Association President 2022-24, said:



***As part of the student and staff cohort who have worked towards an anti-racist University over the years, we are looking forward to the impact of the report and the following listening exercise. Connecting the colonial racial legacy, that is embedded into our curriculum and social interactions, to our experiences in today’s North-East Scotland brings an opportunity to reflect on the importance of proactive anti-racism and what a decolonized education system looks like to us.***







## University secures first Race Equality Charter award

In May of 2024 the University of Aberdeen was awarded its first Race Equality Charter (REC) Bronze award in recognition of its commitment to advancing race equality. Aberdeen is just the third Scottish Institution to hold a REC award.

The Race Equality Charter's mission is to improve the representation, experience, progression and success of racially minoritised staff and students within higher education. It provides a rigorous and robust framework through which institutions work to critically reflect and act on institutional and cultural barriers standing in the way of the progression and success of racially minoritised staff and students. There are currently 101 Race Equality Charter members, holding 50 awards between them.

Professor George Boyne, the University's Principal and Vice-Chancellor, said: "In the last five years, we have been building momentum around antiracism work, engaging with staff, students, and partners and across the sector, and have

developed a progressive Antiracism Strategy, which presents our vision for creating an antiracist University."

The University's Antiracism Action Plan has been designed to target the areas where issues have been identified through the REC process and the University will work with staff and students to ensure change is tangible and impactful.

Anne Mwangi, Head of the Race Equality Charter, said:



***The Race Equality Charter Bronze award is recognition of an institution's robust foundation for eliminating racial inequalities, developing inclusive cultures and moving from commitment to sustainable and integrated bold and ambitious action. Advance HE looks forward to supporting the University of Aberdeen as it progresses its action plans to advance race equality.***



[www.abdn.ac.uk/news/23202/](http://www.abdn.ac.uk/news/23202/)



## Aberdeen professor joins elite Academy of Social Science



*Professor Philip is the latest University of Aberdeen academic recognised by the Academy*

University of Aberdeen academic, Professor Lorna Philip, is among the latest academics to be recognised by the Academy of Social Science.

Professor Philip was among 41 leading social scientists recognised for the substantial contribution their work makes in tackling the challenges facing society. Her main area of research is rural socio-economic change. She has published conceptual and empirical papers about rural social exclusion, population change and ageing in rural communities, as well as rural digital divides; and has completed research on these topics funded by UK Research Councils and government departments.

As a Fellow, she joins over 1,500 leading social scientists and is part of a community which has helped establish the UK's position as a global leader in the social sciences.

Professor Philip said:



***I am looking forward to supporting the Academy's policy and research activities, work that aligns with my ongoing contributions to policy and public debates associated with challenges and opportunities in contemporary rural communities in Scotland and elsewhere in the UK.***



Professor David Muirhead, Head of the School of Geosciences said:



***We were thrilled to hear Professor Philip had been made a Fellow of the Academy. Lorna's research expertise is critical at a time when we face such broad societal challenges, and I am delighted to see her work recognised in such a manner.***



Professor Philip, Personal Chair in Geography at the School of Geosciences, was selected through an independent peer review. The Academy's Fellowship is made up of distinguished individuals from academic, public and private sectors, across the full breadth of the social sciences. Their practice and research addresses some of the major challenges facing communities, places and economies.

[www.abdn.ac.uk/news/in-brief/22880/](http://www.abdn.ac.uk/news/in-brief/22880/)



11 SUSTAINABLE CITIES AND COMMUNITIES



10 REDUCED INEQUALITIES



## Language skills key to understanding residential segregation



Language skills are one of the key factors in explaining residential segregation and play an important role in understanding immigrant residential environments, research from the University of Aberdeen has found.

The study, published in the *Journal of Economic Behavior & Organization*, looked at the causal effects of English proficiency on the residential location choices of immigrants. Previous research had identified a correlation between language proficiency and ethnic residential clustering, and that there was a relationship between lower English language skills and living in areas with higher ethnic concentrations.

The Aberdeen study is the first in the UK to look at the causal effects of English language skills on location choices in different types of immigrant enclaves, and on location choices in neighbourhoods with differing levels of deprivation. The researchers used data from the Office of National Statistics (ONS) linking it to measures of neighbourhood deprivation in England. This revealed insights into the residential environments in which immigrants with different English language skills live.

Results suggest that those with poorer English skills tend to live in linguistic enclaves, while those with better English skills tend to live in ethnic enclaves. The authors suggest that helping immigrants improve their English skills could be effective in reducing residential clustering.

Dr Yu Aoki, Lecturer in Economics in the University's Business School, who led the study said:



***There is a significant extent of residential segregation in the UK. Given that residential environments are found to have a significant impact on social, behavioural and labour market outcomes, it is informative to know the role English language skills play in explaining immigrant residential environments.***



[www.abdn.ac.uk/news/23096/](http://www.abdn.ac.uk/news/23096/)

12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION

## Water of Life: turning whisky waste into valuable commodity

A new method to extract valuable bio-based chemicals from whisky distillery waste streams could transform manufacturing and be worth up to £90 million in global chemical manufacturing markets.

Scientists from RIPCELL, a chemical manufacturing business, are working with researchers from the University of Aberdeen to demonstrate the feasibility of recovering high-value compounds from by-products of the first and second stages of the whisky distillation process. These extracted chemicals have potential applications in sectors including pharmaceuticals, food and drink, and cosmetics, where manufacturing typically depends on unsustainable, petrochemical-derived ingredients.

The project was supported with funding from the Industrial Biotechnology Innovation Centre with by-products provided by Chivas Brothers from 12 of its distilleries across Scotland. The research team have developed a process using a separation technique known as liquid chromatography to isolate and extract compounds from pot ale. While some by-products of the whisky making process

are typically used in low value applications such as animal feeds, many are discarded.

A life cycle analysis of the process was also completed to quantify its environmental impact. The results showed that the bio-based chemicals produced through this method have a significantly lower carbon footprint compared to those produced through traditional petrochemical routes. Estimates suggest that on a global scale, the new manufacturing method for target chemicals could reduce industry emissions by 392 million kg of CO<sub>2</sub> equivalent per year.

Dr Alan Mccue, Senior Lecturer in Chemistry, said:



***The idea of utilising wastewater from a traditional industry like whisky production for the recovery of bio-based chemicals is highly innovative. It's great to see Scottish heritage being linked to sustainable chemical production.***



[www.abdn.ac.uk/news/23418/](http://www.abdn.ac.uk/news/23418/)





## Projects to tackle critical natural resource constraints



University of Aberdeen researchers are leading a project to develop a new method of recycling critical elements from electronic devices, reducing waste and ensuring a new lease of life for old smartphone and vehicle batteries along with other rare elements.

Academics from the Department of Chemistry have received a £140,000 award from the AXA Research Fund to develop a sustainable electrochemical recycling route by investigating the potential use of neoteric (green) solvents. The aim is to make the separation and recovery of critical and rare earth elements efficient, safer, and cleaner – allowing for the creation of a sustainable recycling route.

Critical and rare raw elements are essential in our modern society, powering industry, homes and our personal devices but this has resulted in the rapid and unsustainable growth in electrical and electronic equipment waste. Global accessibility to these vital resources poses a significant challenge due to their rapidly increasing demand and ever-

Dr Haytham Hussein, Research Fellow in Chemistry, who is leading the project said:



***It is essential to discover and develop efficient recovery methods of elements from waste to enable the transition to a sustainable circular economy.***



Elsewhere, University of Aberdeen scientists are to help train the next generation of critical mineral resource experts to support the energy transition. They will join the new Training and Research Group for Energy Transition Mineral Resources (TARGET), led by Leicester University, and including universities, research organisations and industrial partners.

Backed by a £2.6 million funding award from the Natural Environment Research Council (NERC) the consortium aims find sustainable ways to address the demand for critical minerals and metals.





## Emissions reporting projects recognised nationally

An emissions calculator that quantifies the climate impact of students travelling from around the world to study at the University of Aberdeen, and an innovative data dashboard that displays the University's entire greenhouse gas emission inventory, have been recognised at various national awards.

The Student Relocation Emissions Calculator, developed by Rose Lyne (Net Zero & Emissions Manager) and former undergraduate intern Estrid Jonsson (an Engineering undergraduate) from the Sustainability team in Estates & Facilities, picked up the *Higher Education Strategic Planners Association (HESPA) 'Innovation Award'* at a ceremony in London in February 2024.

The work, initially undertaken to address a gap in the University's emissions data, was so well received by the sector that it was subsequently developed as a best practice tool in partnership with the EAUC (The Alliance for Sustainability Leadership in Education) and has been shared with the UK sector and beyond.

The tool has enabled the University to quantify the climate impact of domestic and international student travel for the first time and has been widely adopted and promoted as a simple but effective best practice methodology in various emissions reporting regimes across the UK.

The calculator has since gone on to be shortlisted in the 'Creating Impact' category at the sector's Green Gown Awards, and for 'Outstanding Contribution to Environmental Leadership' at the Times Higher Education Awards.

The Sustainability Dashboard, developed to co-locate all emissions data in one place, provides a visually appealing, data-rich resource for staff, students, and the general public alike. This novel approach to sharing emissions data was shortlisted in the 'Reporting with Influence' category at the Green Gown awards.

[www.abdn.ac.uk/about/sustainable/net-zero.php](http://www.abdn.ac.uk/about/sustainable/net-zero.php)



Rose Lyne and Estrid Jonsson



## 13 CLIMATE ACTION



## Moss could have starring role in pollution monitoring

A unique experiment that began in Aberdeen during the Covid-19 pandemic has revealed how humble moss could be used by citizen scientists to monitor air pollution levels in urban environments worldwide.

Thomas Daniya, a PhD student at the University of Aberdeen, had intended to investigate how the common plants could help measure Polycyclic Aromatic Hydrocarbons (PAH) levels in various cities, but pandemic travel restrictions prevented him from doing so.

Instead, he focused his research on Aberdeen where he collected moss samples from local parks and other public spaces to act as natural sampling devices to measure levels of PAH, a major air pollutant caused by traffic. The results, which revealed surprising levels of PAH in residential areas when traffic restrictions were lifted, were published in the *Frontiers in Geochemistry* journal.

Mosses get their water and nutrition from the air and not their root systems, meaning they are very efficient at collecting airborne pollutants such as PAH. By using moss, Thomas found a convenient and novel way to track PAH levels without the need to set up additional sampling devices, thereby simplifying the data collection process.

As well as revealing the scale at which travel activities affected pollution levels in Aberdeen, the experiment has shown that mosses can be easily collected by anyone residing in urban areas and used to assess the presence of PAH. This creates an opportunity for citizen scientists to play an important role in monitoring air quality in towns and cities worldwide.

Thomas is pictured on the High Street in Old Aberdeen with his daughter Beomhinya who helped him collect moss samples as part of his study.

[www.abdn.ac.uk/news/22723](http://www.abdn.ac.uk/news/22723)





## Gardening good for the soul - until the pressure grows



What if one of the things known for helping and reducing stress and anxiety, becomes such a commitment, it leads to burn-out? It is widely believed that getting involved in community gardening projects is beneficial to health and wellbeing; in fact, participation is increasingly prescribed as a non-medical public health intervention.

A study led by Professor Donald Gray from the University of Aberdeen's School of Education, and published in *Local Environment*, has highlighted some of the unanticipated challenges faced by volunteers, in particular, the wide range of skills required to establish, fund and maintain community gardening projects and suggests that authorities could do more to support them.

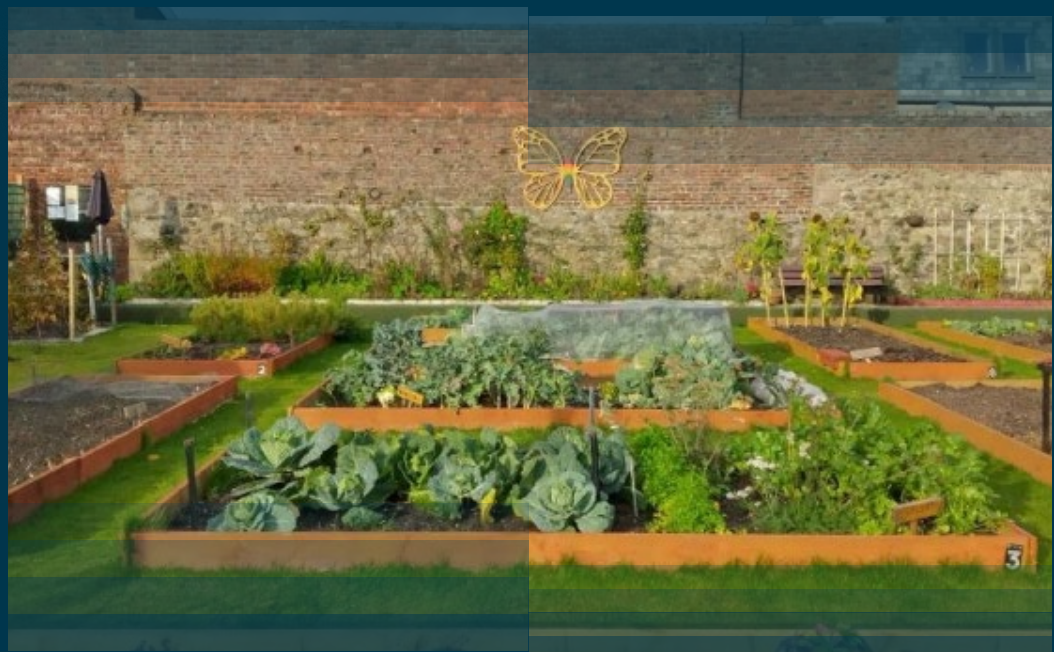
Researchers from the Schools of Education, Biological Sciences, and the Rowett Institute came together to explore the positives and negatives of being involved in urban food growing activities. Their research found that there are numerous benefits of being involved

in community gardens, including social connectivity, improved physical fitness and mental wellbeing and access to fresh food.

The advantages extend to wider society through open days and community involvement, while environmental improvements include increased awareness and action relating to urban biodiversity, climate change and food waste. But the study also found that some volunteer coordinators experienced symptoms of burnout, with pressure to secure sustainable funding and to maintain what they'd begun.

The researchers concluded that local food growing is a popular and expanding activity that supports policies at local and national level. However, the long-term sustainability of these project needs to consider the welfare of the small group of dedicated volunteers who sit at the heart of most projects and the communities they serve.

[www.abdn.ac.uk/news/22828/](http://www.abdn.ac.uk/news/22828/)





13 CLIMATE ACTION



## £1m research funding to explore deadly landslide risks



Images of landslides devastating communities, destroying homes and infrastructure and claiming lives have become a more familiar sight as the impacts of climate change are felt around the world. New research led by the University of Aberdeen is aiming to improve understanding of the risks of landslides and to mitigate the impact – felt across generations – on those caught in their wake.

The project will see experts from the University collaborate with counterparts in India to focus on the Central Himalayan region. The UK researchers are supported by a grant from the Natural Environment Research Council (NERC), part of UK Research and Innovation, and specialists in India are funded by the Ministry of Earth Sciences, India (MoES) with combined funding over £1 million.

Rapid population growth and infrastructure development in the Indian Himalayan states – together with the increasing frequency of extreme precipitation events and the presence of glacial lakes – has increased the region's vulnerability to landslides. Three-quarters of annual rain in the Himalayas arrives in the monsoon season from June to September. Within this rainy period are sudden and extremely intense cloudbursts, often concentrated on small areas.

Precipitation-triggered landslides are already happening extensively across the Himalayas and are predicted to get worse. The project will bring together geoscientists, experts in remote sensing and geotechnical analysis, social scientists and community engagement specialists to conduct mapping, monitoring, reconstruction, and analysis of landslides using satellite, drone, geotechnical, and tree-ring data.

Project Lead Dr Anshuman Bhardwaj, Senior Lecturer in Geosciences, said:



**Geohazards such as landslides cause extensive damage to essential infrastructure and local economies, leading to mass displacements. Understanding of these processes and their long-term impacts needs substantial research.**



[www.abdn.ac.uk/news/23555/](http://www.abdn.ac.uk/news/23555/)



## Long-term study aims to support Scottish salmon recovery

Six decades of ecological monitoring on a stream close to His Majesty, King Charles' Deeside home is providing the science needed in the fight to preserve one of Scotland's keystone species. Professor Chris Soulsby, Chair in Hydrology at the University, has been involved in the study for over 30 years.

Atlantic salmon have long been identified as a threatened species because they need marine and freshwater habitats during their complex lifecycle, and both are being affected by climate change.

To gain a greater understanding of this lifecycle, fish traps were installed in the Girnock Burn in Royal Deeside in 1966 to monitor the salmon population. The dataset they have been able to capture over six decades provides vital science that can support salmon restoration efforts in Scotland.

A research paper, led by the University of Aberdeen, has highlighted insights from this long-term monitoring. The study is a partnership between the University

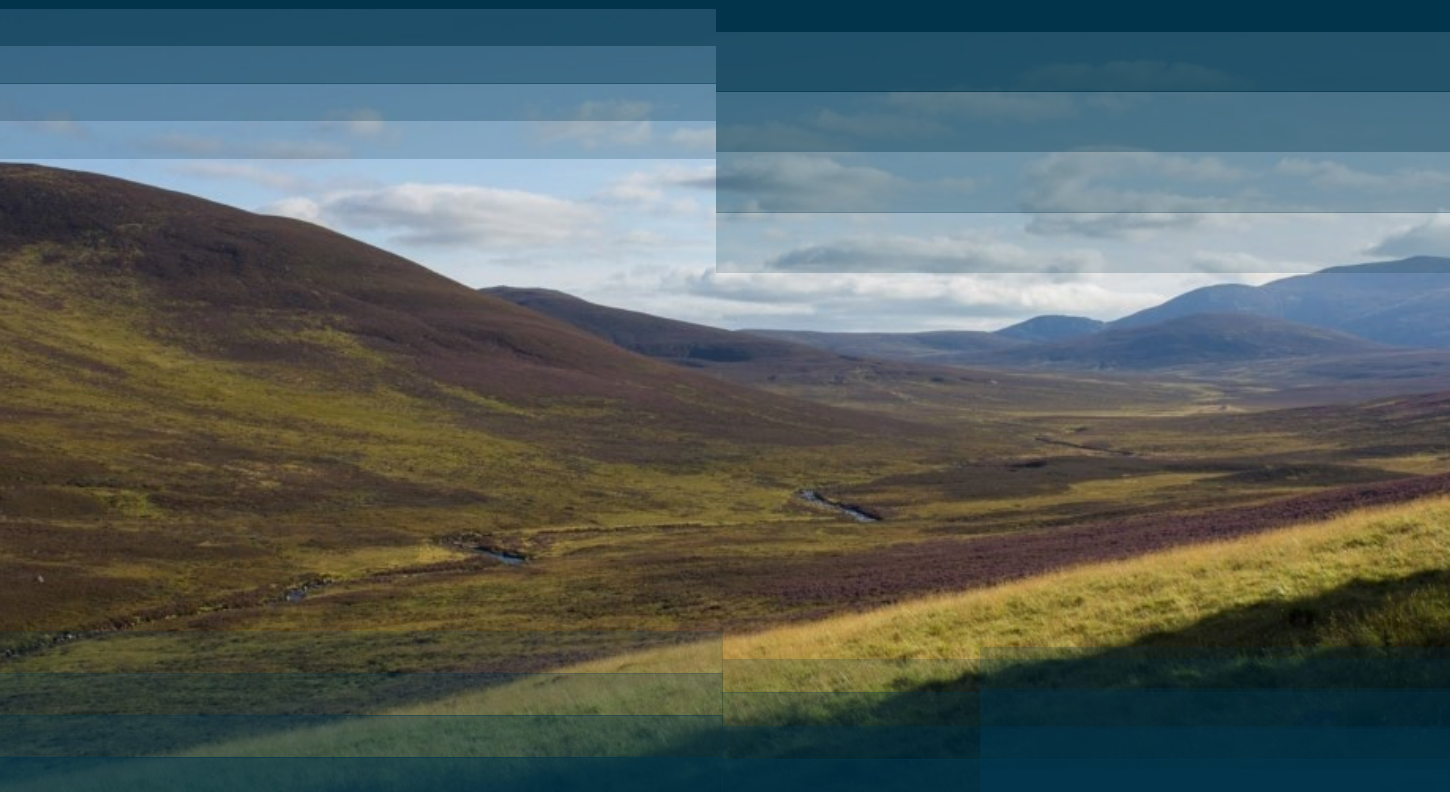
of Aberdeen, the Marine Directorate of Scottish Government, and the Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB) in Germany. It is the most detailed, long-term study of an Atlantic salmon population in the world and has revealed quantitative changes in the return rates, distribution, size, growth and age of salmon.

Professor Soulsby said:



***This 60-year dataset provides a detailed understanding of how salmon populations and their habitat use has changed as the climate has warmed. Unfortunately, this shows an alarming decline in the number of salmon returning from the sea. However, from this, we can start to build a scientific picture of what management responses to protect fish are likely to be successful.***

[www.abdn.ac.uk/news/22973/](http://www.abdn.ac.uk/news/22973/)







## Gauging the impact of decommissioning on Moray Firth porpoises



Researchers from the University of Aberdeen have published a new study examining the environmental effect of the noise created by maritime decommissioning on marine mammals. The findings shed light on the impact of decommissioning projects on marine mammals and provide evidence for the consenting process of future projects.

The removal of man-made marine structures involves activities that have the potential to impact marine mammals by increasing underwater noise levels. Marine mammals use sounds to communicate as well as for hunting, traveling, and breeding, and are sensitive to the noise produced by human activities. For instance, it was known that the presence of vessels and the noise generated by them can displace some marine mammals and decrease their foraging activity.

Scientists from the University's Lighthouse Field Station have been studying harbour porpoises in the Moray Firth for many years, so took the opportunity to monitor their reaction to the decommissioning of a small oil and gas platform, the Jacky Wellhead.

During the study, which was carried out in collaboration with the National Physical Laboratory (NPL), it was discovered that while underwater noise levels did temporarily displace the porpoises (by less than 2km), the occurrence of porpoises at the decommissioning site returned to baseline levels once the work was finished. Likewise foraging activity, which decreased slightly near the decommissioning site during the activity, returned to original levels once the process was complete.

Dr Oihane Fernandez-Betelu, Research Fellow in Biological Sciences, who led the study, said:



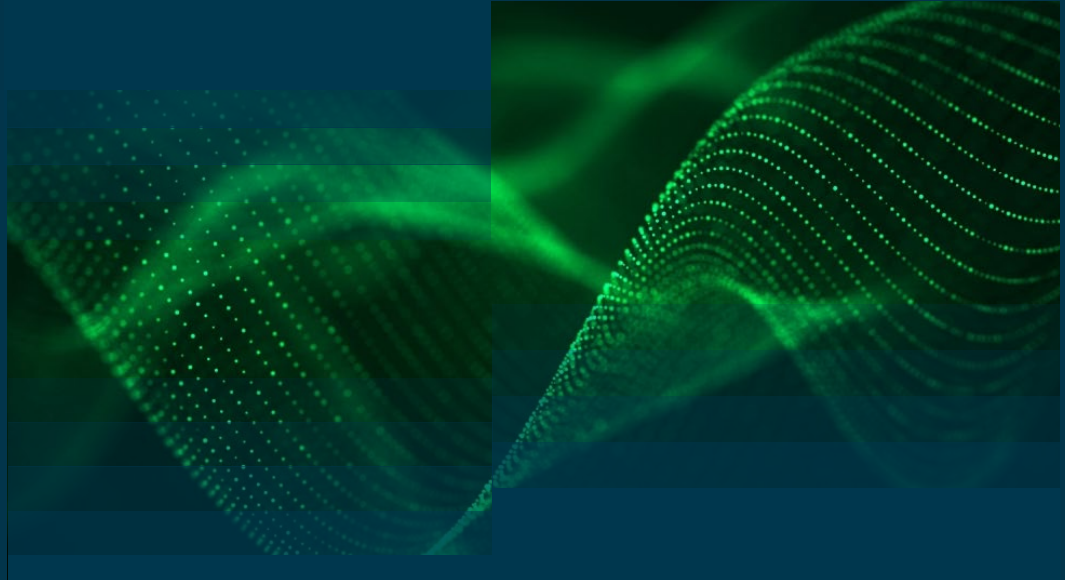
***Ultimately, the goal was to gather information on the effects of decommissioning, aiming to better inform future projects and facilitate the implementation of more effective and environmentally responsible approaches.***



[www.abdn.ac.uk/news/22908/](http://www.abdn.ac.uk/news/22908/)



## New doctoral training on the role of AI in sustainable agriculture



The SUSTAIN Centre for Doctoral Training (CDT) will train the next generation of scientists specialising in the use of artificial intelligence (AI) to promote sustainable agriculture. This major new partnership has received a £10.6 million funding boost from UK Research and Innovation (UKRI) as part of an £117 million package for AI research.

The partnership, involving the Universities of Aberdeen, Lincoln, Strathclyde and Queens University Belfast, aims to transform the UK agri-food sector's approach to sustainability while ensuring that everyone in the UK has access to food that is nutritious, delicious, affordable, and safe. Professor Simon Parsons, Professor of AI and Machine Learning and Head of the School of Computer Science at University of Lincoln, will lead the programme.

The agri-food sector is hugely important for the UK economy, but it faces challenges in terms of reducing its greenhouse gas emissions and becoming more sustainable. AI will help the sector achieve the rapid transformation needed to meet this challenge and SUSTAIN aims to train the scientists who will ensure that it does.

The project will provide a cross-disciplinary doctoral training programme across all four universities to support research in the application of AI to sustainable agri-food. This will cover the technical and social science aspects of AI alongside training in plant, animal and/or biosciences, tailored to individual student needs and interests.

Professor Georgios Leontidis, the University's Interdisciplinary Director for Data & AI and Chair in Machine Learning said:

“

***I am delighted to act as the Co-Deputy Director for the SUSTAIN CDT which will enable the University to work alongside world-leading experts, stakeholders, and students who will benefit from world-leading facilities and expert supervision.***

”

[www.abdn.ac.uk/news/22452/](http://www.abdn.ac.uk/news/22452/)



15 LIFE ON LAND



13 CLIMATE ACTION



## Funding to explore rapid evolution in Scottish seabird populations

A University of Aberdeen scientist has been awarded €2.5million by the European Research Council (ERC) to lead a team in predicting how seabird populations on the east coast of Scotland will respond to increasingly extreme seasonal weather conditions.

Researchers from Aberdeen, the UK Centre for Ecology & Hydrology (UKCEH), and the Norwegian University for Science and Technology (NTNU), will try to predict how wild populations, and in particular European shags, will evolve in response to increasing frequencies of extreme winter storms.

Many seabird species have declined considerably across northern Europe over the last 20 years and extreme climate events are one of the most important causes. The team wants to understand whether these birds can escape from increasingly tough seasonal conditions through increased seasonal migration by analysing the degree to which they change locations as the seasons pass.

Professor Jane Reid, from the University's School of Biological Sciences, who will lead the five-year study, said:



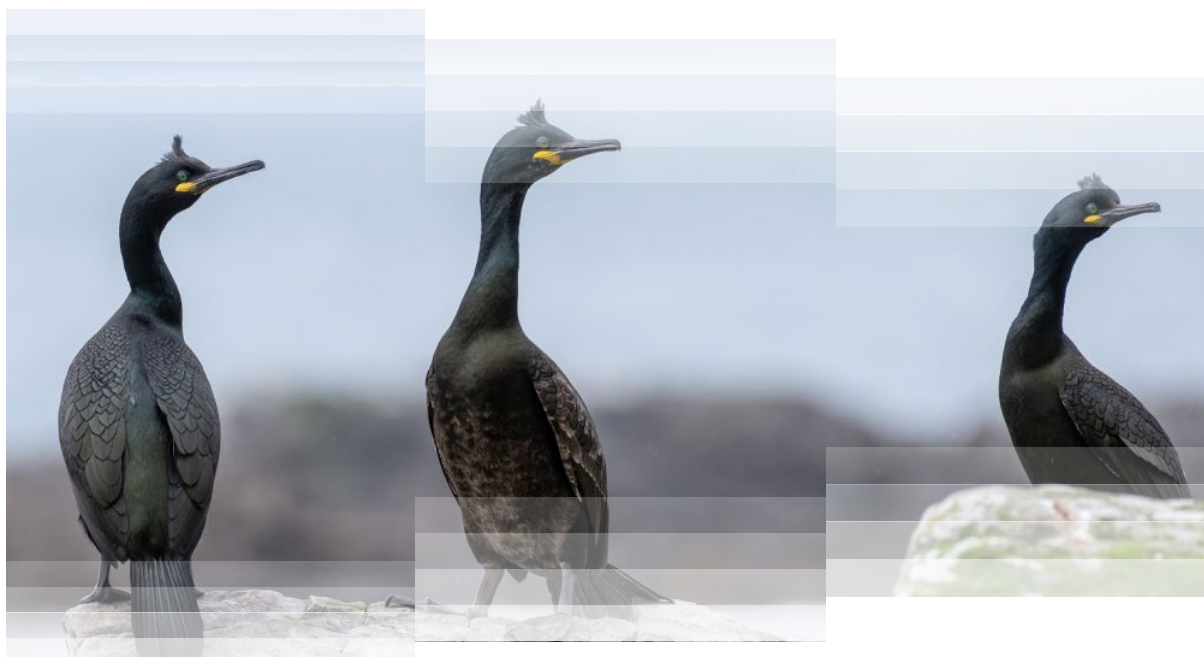
***The team are delighted to have been awarded this European Research Council Advanced Grant, which culminates from huge fieldwork efforts across Scottish coasts through recent years. This project will greatly increase our ability to predict and manage the fates of wild populations in the face of climate change.***



It is the second time Professor Reid has been awarded ERC funding. In 2012, she received an ERC Starting Grant from the European Commission worth over €1.3 million for her project on the evolution of inbreeding in wild animals.

Scotland holds numerous internationally important populations of protected species, including the study's focal species, the European shag.

[www.abdn.ac.uk/news/23040/](http://www.abdn.ac.uk/news/23040/)





## Groundbreaking study revises the origins of biodiversity

An international team of scientists has made a groundbreaking discovery that could reshape our understanding of how global biodiversity evolved. By reconstructing the evolution of species over the past 45 million years, researchers found that the geographic origins of many plants, insects and mammals are more closely linked than previously thought.

Led by scientists from the University of Aberdeen's School of Biological Sciences, in collaboration with Bangor University in Wales, Lakehead University in Canada, and several Indonesian institutes including IPB University in Bogor, the team used Southeast Asia - one of the world's most biodiversity rich regions - as a natural laboratory to trace the geographic origins of a wide range of species.

Their findings challenge long-standing theories that groups of flora and fauna evolved separately on different landmasses before diversifying across the region. Central to this research is a new evolutionary model, developed at the University of Aberdeen, which enabled the team to include extinct species in their analysis for the first time.

This innovative approach has not only provided a more complete evolutionary picture but has paved the way for a fresh understanding of how biodiversity arose and spread across landmasses. The model is now being used in international collaborations to revisit the evolutionary history of other continents, promising to reshape our understanding of global biodiversity.

Professor Lesley Lancaster, Personal Chair at the University of Aberdeen said:

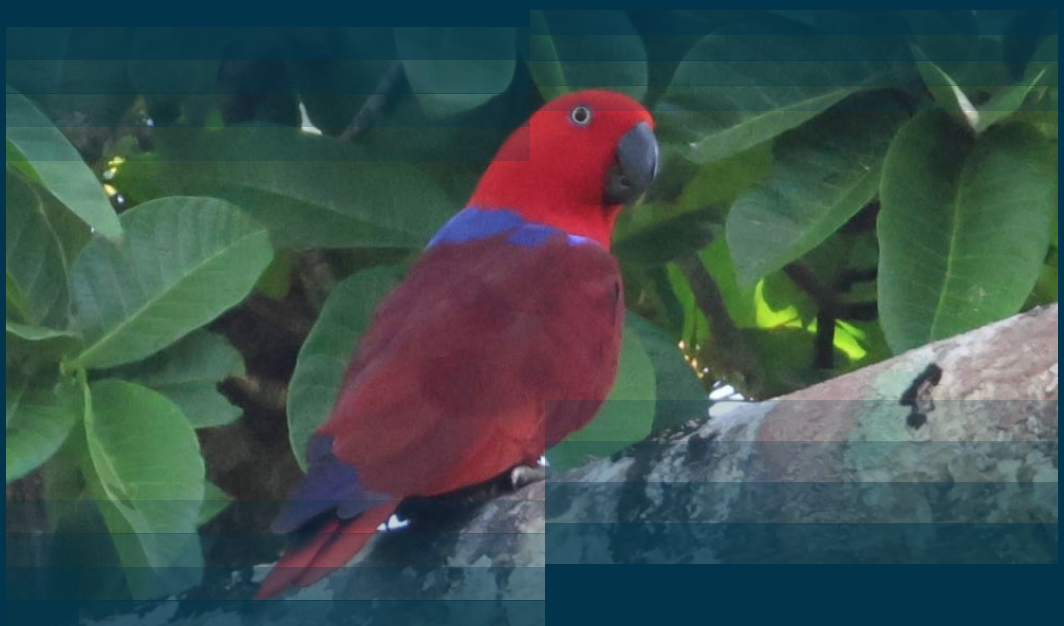
“

***This new understanding aligns with recent geological findings and could transform how we view the origins and spread of species globally.***

”

The research was funded by UKRI's Natural Environment Research Council (NERC) and the paper is published in the journal, Proceedings of the Royal Society, Series B.

[www.abdn.ac.uk/news/23570/](http://www.abdn.ac.uk/news/23570/)







## Scotland's capercaillie population offered extinction lifeline



Jack Bamber

University of Aberdeen researchers might have solved the riddle of how to save one of Scotland's most iconic protected species from eating another.

The capercaillie is a ground-nesting bird that, with only around 500 remaining in the wild, is in danger of extinction in the UK. One contributor to its decline is the eating of eggs and chicks by predators, including another protected species, the pine marten.

Now a trial in the Cairngorms which involved placing artificial nests filled with chicken's eggs and leaving deer meat in strategic locations to feed hungry predators and discourage them from further foraging during the breeding season, has seen an increase of 83% in nest survival. Direct evidence that diversionary feeding led to significant reductions in nest depredation was previously lacking

This fresh research, newly published in the British Ecological Society's Journal of Applied Ecology, shows that diversionary

feeding could be a significant contributor to saving the capercaillie from extinction, with. As a result of the study, it is already being rolled out by Forestry and Land Scotland (FLS), the RSPB Scotland and other partners in Deeside.

PhD researcher Jack Bamber from the University's School of Biological Sciences led the study, supervised by ecologists from the Universities of Aberdeen and St Andrews, alongside FLS.

Part of the Cairngorms Connect Predator Project, the research was conducted across 60km<sup>2</sup> of land managed by the Cairngorms Connect Partnership. The project was funded by NERC and the School of Biological Science at the University of Aberdeen through the Scottish Universities Partnership for Environmental Research Doctoral Training Partnership, and Forestry and Land Scotland, with support from Wildlands Ltd and RSPB Scotland.

[www.abdn.ac.uk/news/23273/](http://www.abdn.ac.uk/news/23273/)



## Professional development support for decolonising

At the start of the 2023/24 academic term, the University of Aberdeen launched a new Masters-level course on *Decolonising Society and Politics* aimed at anyone seeking to gain a deeper understanding of the complex range of issues this encompasses.

With businesses, governmental bodies and the public sector all facing calls to decolonise, this course is aimed at individuals seeking or pursuing professional careers in areas as varied as education, business, international development, arts and culture, media, public health, and the third sector.

During the course, learners will hear from an experienced and interdisciplinary team of active academic researchers drawn from anthropology, history, law, modern languages, museum studies, politics and sociology, who all have practical experience of decolonising professional practice and pedagogy in their respective fields.

The course equips its students to engage in debates about decolonisation and its relevance for real-world challenges.

It explores what decolonisation means across sectors including education, global trade, politics, health, the creative arts, language and culture, and climate governance.

Topics covered will include decolonisation in the context of the curriculum, public health, international trade and finance, museums and the arts, climate governance, foreign policy and international development.

This distance-learning, Masters-level course is delivered flexibly, and 100% online. It runs every 12 weeks and, as an interdisciplinary course, is open to graduates from any discipline.

The University's own action to support the decolonisation of its curriculum is now supported by an extensive suite of materials. These materials and the background to the University's discussion on curricular decolonisation can be found at the [\*Decolonising the Curriculum\*](#) webpages.







## Flagship research project on AI in law enforcement



A University of Aberdeen academic is part of a UK-wide research team which has received major funding from Responsible AI UK (RAI UK) to investigate the future use of probabilistic AI in law enforcement.

The four-year study entitled PROBABLE Futures (Probabilistic AI Systems in Law Enforcement Futures) is one of only three RAI UK Keystone projects and has secured funding of £3.4 million. It is one of a series of breakthrough AI projects that were awarded a share of £12 million to address the challenges of the rapid advances in artificial intelligence. The projects cover the health and social care sectors, law enforcement, and financial services.

The Northumbria University-led multi-disciplinary project will see Dr Elizabeth Tiarks, Lecturer in the School of Law, join colleagues from Glasgow, Northampton, Leicester and Cambridge Universities, alongside law enforcement, commercial technology, third sector, and other academic partners.

Dr Tiarks will bring her practice experience as a criminal barrister and research expertise in AI in criminal justice and predictive tools used in sentencing to the project.

Dr Tiarks said:



***Our multi-disciplinary project will explore probabilistic AI in law enforcement, considering both the benefits to law enforcement bodies and also concerns about decision-making based on AI and the potential cumulative effects of multiple AI systems feeding into each other.***



The funding has been awarded by RAI UK and forms part of a £31 million programme that will run for four years. RAI UK is led from the University of Southampton and backed by UK Research and Innovation (UKRI), through the UKRI Technology Missions Fund and EPSRC. UKRI has also committed an additional £4 million of funding to further support these initiatives.

[www.abdn.ac.uk/news/23142/](http://www.abdn.ac.uk/news/23142/)

## 17 PARTNERSHIPS FOR THE GOALS



# Exploring the impact of energy transition on coastal communities

The University of Aberdeen will work in partnership with Heriot-Watt, Highlands and Islands, Strathclyde, and Hull Universities, together with industry partners such as Daryl Burton Ltd and stakeholders from government, marine management and offshore energy, to explore lessons from the past which can help coastal communities cope with the move to renewable energy.

From the use of whale oil in the 1800s to the production of North Sea oil and gas in the 1970s, many coastal regions have flourished then suffered from rapid industrial changes. These past transitions will be examined by academics, led by Heriot-Watt University, with the aim of boosting the resilience of coastal communities as they respond to current changes in energy production.

The Aberdeen element of the research will be supported by a £718,000 share of the UK Research & Innovation funding and will bring together an interdisciplinary team including Dr Daria Shapovalova (Law), Professor Tavis Potts (Geosciences), and Dr Kate Gormley (Interdisciplinary Fellow), supported

by a post-doctoral research fellow and research assistants. The study will also include the Humber in England and the Orkney islands archipelago.

The researchers will combine scientific data on the impacts of past energy transitions on factors ranging from migration, employment to mental and physical health, with testimony and archive material to build a picture of 'the human side of energy transition'.

Dr Shapovalova, Senior Lecturer in Law, said:



***This project is a unique opportunity to examine the human side of the energy transition. We will use the knowledge of past transitions – for example from whale oil to petroleum – and case studies to understand how coastal communities experience change.***



[www.abdn.ac.uk/news/23437/](http://www.abdn.ac.uk/news/23437/)







## Consortium wins funding to research land use transformation



The University of Aberdeen is part of a transdisciplinary hub looking to bridge the gap between science and policy to achieve net zero. A first of its kind consortium of 34 leading research and stakeholder organisations has been established to help decision-makers across the UK develop responses to address land use and agriculture as a major greenhouse gas emitting sector.

Agriculture and land use have a major impact on greenhouse gas (GHG) emissions, as well as a wide range of other environmental, societal and economic outcomes, but progress towards decarbonisation lags other sectors.

The winning consortium was awarded a £6.5 million government grant to establish a 'Land Use for Net Zero' (LUNZ) Hub. The Hub aims to provide all four UK administrations with evidence to develop policies that will drive the land transformation required to achieve net

zero by 2050. It will also play a pivotal role in helping to communicate more widely the critical importance of land and how it is used as a major carbon sink.

The LUNZ Hub, will be co-led by the James Hutton Institute and the University of Leicester, with the funding coming from UK Research and Innovation. The consortium includes experts from research, farming and industry across issues including green finance, renewable energy, planning, soil health, afforestation and water management.

Professor Pete Smith, from the University's School of Biological Sciences, will co-lead the Soil Health and Carbon Dynamics Topic Advisory Group, bringing his expertise in Soil Science to the Hub and recognising the role of soils in establishing sustainable land use that helps meet net zero goals.

[www.abdn.ac.uk/news/22706/](http://www.abdn.ac.uk/news/22706/)



## NDC - Innovation Through Partnership

The National Decommissioning Centre (NDC) is a partnership between the University of Aberdeen, the Net Zero Technology Centre (NZTC) and industry and is part of the Aberdeen City Region Deal.



Combining industry expertise with academic excellence, the NDC is working in partnership with the energy sector to lead research and development (R&D) that supports cost and emissions reductions, improves environmental outcomes, and helps deliver sustainable net zero decommissioning.

The NDC collaborates nationally and globally with universities, R&D institutions, and innovation centres, and partners with fishing, marine, safety and environment organisations. In the past year, NDC's research has helped tackle the SDGs in many ways – notably SDGs 7, 9, 13, 14 & 17.

Work undertaken by NDC's Dr Shahin Jalili and colleagues has assessed the economic and environmental challenges of offshore wind farms as they enter the decommissioning phase. Wind energy's significant expansion to meet the demand for renewable energy, means large windfarms will eventually be decommissioned, potentially creating

serious environmental and economic challenges.

This research develops a new approach for economic and environmental assessments of this process and will support policymakers, operators and everyone in the wind energy sector.

Elsewhere, PhD researcher Abigail Davies and Professor Astley Hastings have worked to provide a first estimate of blue carbon (BC) associated with oil and gas industry marine infrastructure. Their work aims to quantify BC stocks around marine oil and gas infrastructure and finds that these neglected ecosystems store important quantities of BC and models their potential to store carbon longer term.

Their study demonstrates the potential for oil and gas industry structures to sequester carbon and suggests that current seabed practises could damage these important ecosystems, reduce sequestration potential, and release large volumes of greenhouse gas by degrading the biomass.

NDC's state-of-the-art simulator has been put to good use, helping to de-risk







future offshore use of anchors for floating wind applications. The study, undertaken at NDC, has aimed to trouble shoot the use of variable buoyancy anchors for floating wind technology.

Using a virtual prototype of an anchor system developed by Aubin Group and Oceanetics Inc., the research tested several operational and environmental factors such as underwater current, wave height and winch velocity. Published in Ocean Engineering, the research shows that virtual prototyping can be a useful tool in understanding the deployment of offshore technologies.

A publication from researchers Dr Rebecca von Hellfeld and Christoph Gade has looked at how marine mammals are coping in increasingly contaminated environments. Samples from key organs of an adult Bottlenose dolphin that stranded in 2020 were analysed. The animal was thought to be at least 37 years old and was a well-known member of the Moray Firth pod.

The findings show that marine mammals accumulate mercury in their tissues at high concentration and that, even with conventions and legislations to reduce

the use and release of mercury, the fact that mercury is not easily excreted leads to higher levels of contamination in top predators, such as marine mammals.

The NDC's partnership with the Nuclear Decommissioning Authority (NDA) has continued to grow and deliver benefits. The partnership is aimed at supporting the energy sector to reduce costs and emissions, improve environmental outcomes, and deliver sustainable net zero decommissioning. Bridging the oil and gas, and nuclear decommissioning sectors, the partnership draws on the expertise and insights in each area and supports research in several areas of mutual interest.

These include the development of AI based techniques to support risk management, sharing new technology development, analysing economic and environmental impacts, and finding environmentally safe alternatives to cement.

For more on NDC's work please visit us at <https://www.ukndc.com/>



## AUSA: working to support the SDGs



The Aberdeen University Students' Association (AUSA) is delighted to support the SDGs across a variety of different programmes and projects. Students' Union highlights from 2024 include:

Our **Zero Waste Shop** an innovative partnership with local food charity CFINE, diverts supply chain food surplus from waste, passing it on cheaply to make everyday essentials affordable for students and the community. Takings are used to bulk-buy sustainable products from a workers' co-operative, making these available at a subsidised rate, making sustainable and ethical shopping affordable.

The **Second-hand Market** allows students to pick up used items that they might only need during the duration of their studies. To reduce waste and costs, this Welcome Week initiative sees goods that have been donated or left by departing students made available to new students. We also hosted a range of local and ethical businesses to encourage students to shop locally and sustainably.

Our **Community Tool Library** has seen the SU work in collaboration with Old Aberdeen Community Council to launch a resource that will enable students, staff and the community borrow 'stuff' they may only need occasionally, reducing expense and environmental impacts. Funded via a donation from the Trade Widows Fund and community donations, items available include power tools, a projector, a carpet cleaner and much more!

The Students' Union was a key partner in September's **Envirovolution**, a free climate festival for the community held in Seaton Park. With 1000+ attendees, the festival showcased local organisations and their work to mitigate the climate crisis. From free plant-based food, to storytelling, children's crafts, and live music, there was something for everyone!

Our **Buses for All** proposal saw the Students' Union and Old Aberdeen Community Council propose an extension to the service linking Old Aberdeen, King's College, and Hillhead Student Village with the City Centre. First







Aberdeen are now trialling extended hours from 7pm to 10pm – improving public transport links for all, but notably disabled students and elderly residents. Meanwhile our campaign to retain annual student bus passes will save mature postgrad students, ineligible for free bus travel, around £400 annually!

Gone are the days when many **Welcome Week Events** involved alcohol. During Welcome Week in September 2024, the SU offered a range of inclusive events, from a Yoga morning, to a girls pamper night, to a picnic in the park. Such events help everyone find something to participate in during Welcome Week. We also host events for **Black History Month** and **Pride** throughout the year, ensuring often feel marginalised students, have events and spaces for them.

While joining a sports club is not for everyone, the benefits should be. The Students' Union has launched weekly **Casual Sports** events that are open, free, and non-competitive. These include football, tennis, and boccia - a sport that is accessible to those with some disabilities.

Two initiatives to help with **Menstruation Pain Management** are being trialled to help students experiencing the pain and discomfort that can often lead them to miss classes. Supported by the University's Development Trust, the SU is making discrete TENS devices available to help ease symptoms, while electric hot water bottles can also be signed out.

And finally, work in the coming year will see the Students' Union draft an **Ethical Framework** to categorise its suppliers based on environmental and social responsibility criteria. This follows a motion passed by our student body to find ways to quantify the credentials of suppliers in the context of net zero. The aim is to eventually see all suppliers operate in line with the framework and to encourage organisations we work with to make positive changes.

For more on the Students' Union's work on the SDGs visit the [SU sustainability pages](#).





## Golden summer for University Paralympian

It was a golden summer for Faye Rogers, one of two University of Aberdeen undergraduates to represent Team GB in the Paris Paralympic swimming events.

Faye's stunning victory in the S10 100m Butterfly final, represented a remarkable achievement for the former Olympic hopeful. A serious car-crash the day before she had been due to start at the University in 2021, resulted in injuries that would eventually see Faye reclassified as a para swimmer, but only after being told she was unlikely to swim competitively again.

As the reigning World Para Champion in the S10 100m Butterfly, Faye had entered the event as one of the favourites and managed to live up to that billing, narrowly holding off the field in an exhilarating final to take home the Gold.

Alongside Faye at the Paris Paralympics was training partner and close friend Toni Shaw (who swims in the S9 category). After an injury hit season, Toni narrowly

missed out on a medal, finishing an agonising 4th, just 0.25 seconds off the podium in the SM9 200m Individual Medley. Toni is, however, a previous Paralympic medallist, having won S9 400m Freestyle bronze at the Tokyo Paralympics.

Between them, Faye and Toni reached finals in 6 of the 7 events they entered. Faye is studying biochemistry and Toni is studying business.

The pair train as part of the University of Aberdeen Performance Swimming (UOAPS) programme where they are coached by Patrick Miley. The performance swimming programme is a collaboration between the University of Aberdeen, Aberdeen Sports Village, Aberdeen City Council and Scottish Swimming and supports both para and able-bodied swimmers.

[Faye Rogers - Paralympic Gold Medalist \(youtube.com\)](https://www.youtube.com/watch?v=...)



Patrick Miley and Faye Rogers





## Aberdeen law students pick up multiple awards

University of Aberdeen Law Diploma students Ailsa Gardyne and Callum Leeson enjoyed domestic and international success this year, winning the Scottish Client Consultation Competition before going on to pick up international honours at the International Brown Mosten Client Consultation Competition.

The Scottish competition was held at Dundee University in February and saw teams from four Scottish law schools take part in simulated lawyer/client interviews where they were marked on their performance by a panel of expert judges.

Ailsa and Callum then went on to see off teams from 22 countries across the world including Canada, Australia, Nigeria, USA, Ukraine, Malaysia and New Zealand to emerge as the overall winners of the prestigious international legal competition in Poland in April.

The theme of both this year's competitions was International Humanitarian Law, which saw the Aberdeen team tackle issues such

as asylum and human trafficking - an area of law the pair had not previously encountered. Ailsa and Callum's achievement marks the first time a team from the University of Aberdeen has won the international competition, which has been running since 1985.

Meanwhile there was success for more University of Aberdeen Law students, when Syed M. Humaid Adil and Dina Hingorani saw off stiff competition from Dundee University to win the Lord Jones intervarsity mooting competition in February.

The Lord Jones is well established as one of the most widely attended mooting competitions in Scotland and the standard of advocacy across the whole competition was very high. The win marked the first time since 2017 that Aberdeen has reached the finals, and its first win since 2006.

[www.abdn.ac.uk/news/22860/](http://www.abdn.ac.uk/news/22860/)

[www.abdn.ac.uk/news/22865/](http://www.abdn.ac.uk/news/22865/)

[www.abdn.ac.uk/news/in-brief/23073/](http://www.abdn.ac.uk/news/in-brief/23073/)



*Ailsa Gardyne and Callum Leeson*



## Working Together to Break Boundaries

This academic year saw the launch of the University of Aberdeen's 'Breaking Boundaries' campaign that focuses on the people at the heart of our world-class research.

The world's greatest challenges cross disciplines and span continents. To solve them we need people who see things from different perspectives – going beyond expectations, to spark active, positive impact. At Aberdeen, we have been going beyond traditional ways of working, proactively working together to break boundaries for over half a millennium.

Whether it's leading the global transition to a cleaner energy future, pioneering preventative healthcare for all, harnessing cultural diversity for a more equitable world, protecting the environment and biodiversity, or driving innovation forward through Data and AI; at Aberdeen, there are no boundaries for ideas and their impact.

At Aberdeen it's not about staying in our lane or sticking to the status quo, it's about breaking with convention, going

beyond traditional methods, siloes, and boundaries in pursuit of a better world. Our boundary breakers are change makers, championing inclusivity, internationality, and sustainability through a bold, interdisciplinary approach to research.

Our research themes represent research topics of historic and emerging significance. They support diverse research portfolios and deliver globally excellent and measurable benefits to society, the economy and health. Through these themes, we are working towards a brighter future, while actively supporting the UN's Sustainable Development Goals.

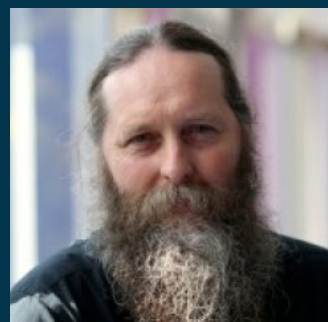
This, our 2023/24 Sustainable Development Goals Report, has showcased some of our many outstanding 'boundary breakers'. To learn more about others and the opportunities available at the University of Aberdeen, please visit our [research website](#) or see our Working Together to Break Boundaries [video](#) or the Aberdeen's Boundary Breakers [podcast series](#).



Professor Zosia Miedzybrodzka



Professor James N'Dow



Professor Pete Smith

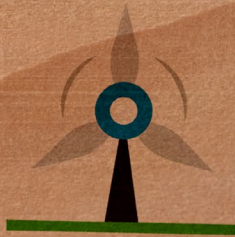


Professor Muhammad Azizul Islam



Professor Mirela Delibegovic









# Sustainable Development Goals

Annual Report 2023-24

[www.abdn.ac.uk](http://www.abdn.ac.uk)