

The magazine for
University of Galway
alumni, staff and friends



OLLSCOIL NA
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UNIVERSITY
OF GALWAY

Cois Coiribe

WINTER 23/24 | SDG CHAMPION EDITION

In this edition...

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at the Molecular Level,
Dr Martin Walsh OBE

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University of Galway:
Engaging with our Alumni

...and more.



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Cois Coiribe *Impact.*

Winter 2023/24
SDG Champion Edition

The online publication for views and opinions from University of Galway's top academics, researchers and alumni.

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Foreword from The President

Focal ón Uachtarán

Professor Ciarán Ó hÓgartaigh,
President, University of Galway

A chairde,

At the turn of the year, as we pause to reflect on the world around us, I am pleased to share with you our latest edition of *Cois Coiribe* magazine, which this time has sustainability as its focus: caomhnú comhshaoil agus caomhnú comhludair.

Sustainability is a very fitting theme given the urgency of the climate and biodiversity crises we face together. Within this *Cois Coiribe* you will see some of our own work here in Galway to advance a more sustainable planet through our teaching, our research and our work on campus and in the community. Tá an abhann faoi lán srutha.

In 2023, we were honoured to be designated as **SDG Champion** by the Government of Ireland in recognition of our collective effort. The UN SDGs — or Sustainable Development Goals — comprise 17 areas of action that the world must advance to put our society and planet on a more sustainable path forward. They include social issues like poverty, health and inequality, as well as environmental issues like climate change, clean water and life on land.

Our university community has been advancing research and action across all 17 Sustainable Development Goals and, in recognition of the extraordinary progress we are making together, this year *Times Higher Education* ranked us **first in Ireland and in the Top 50 in the world** for our impact on the SDGs.

Our researchers are recognised globally for their leadership in a broad range of sustainability issues — from designing the next generation of medical devices to

exploring the ocean for solutions to our climate and biodiversity crises.

Our teaching is developing the next generation of scientists, policymakers, activists, lawyers and entrepreneurs who will take on the world's most pressing challenges in their future careers.

Our campus team is using solar panels, geothermal energy, building retrofitting, rainwater harvesting, recycling, planting and green transport initiatives to reduce our impact on the environment and cut our greenhouse gas emissions.

Our students continue to challenge us to do more. They inspire us through their actions and creativity to secure a more sustainable future for those to come.

If you would like to discover real-world examples of how our staff and students are making an impact, I invite you to walk our new [SDG Trail](#) through campus.

Of course, we cannot rest on our laurels and simply see gaining plaudits as our aim. Our efforts must continue and intensify in the years ahead. We are open to being challenged to do more, as we must do more in our society, for our society.

In 2024, we will continue to use our status as SDG Champion to highlight the breadth of activities our staff

and students are undertaking to advance sustainable solutions and to share our learnings with others.

From January 2024, our first Director of Sustainability will lead an expanding Sustainability Office, which will soon include a Sustainability Accountant, recognising the new limited resource as carbon as well as currency, and two academic posts who will help to embed sustainability across our curriculum.

As a university committed to serving the public good, we all have a part to play in tackling climate change and preserving our precious biodiversity for generations to come. We hope that within the stories in this edition of *Cois Coiribe*, you will find new ideas, encouragement and hope to inspire you in the year ahead.

Le gach dea-ghuí don bhliain atá romhainn.





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Dates for *your* 2024 Diary

7 February

North America Virtual Alumni Event

Alumni Panel Discussion. Keep an eye on our social media and newsletters for more information.

14 March

London Alumni Gathering

Alumni Panel Discussion. Keep an eye on our social media and newsletters for more information.

10 May

2024 Alumni Awards Ceremony and Gala Banquet

Held in the Bailey Allen Hall, University of Galway. Tickets can be booked online [here](#). Learn more about our outstanding 2023 Alumni Award winners [here](#).

8 June

Cumann Caoga Bliain—50 Year Reunion

50 Year Reunion for the classes of 1970, 1971, 1972, 1973 (cancelled due to COVID restrictions) and 1974. Keep an eye on our social media and newsletters for more information.

July

Alumni Summer BBQ

We will hold our annual University of Galway Alumni Summer BBQ in July to coincide with Galway International Arts Festival. Stay connected on our website, social media and emails in the lead-up to summer for details.

7 September

1984, 1994, 1999 and 2004 Reunion

Did you graduate in 1984, 1994, 1999 or 2004? If so, you will be celebrating the 20th, 25th, 30th and 40th anniversaries of your graduation in 2024. Yes, it is that long ago!

To mark the occasion, we will hold a Reunion Celebration BBQ and party until late, in Sult College Bar on Saturday 7 September 2024.

So, pencil the date into your diary, rev up the social media posts and contact your classmates to ensure as many graduates as possible get back to Galway to celebrate! Booking details to follow.

19 September

Medical Class of 1977 Reunion


Keep an eye on our social media and newsletters for more information.

Weekend of 20 September

Medical Class of 1974 Reunion

Keep an eye on our social media and newsletters for more information.

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Understanding Viruses at the Molecular Level

Dr Martin Walsh OBE,
Life Sciences Deputy Director,
Diamond Light Source

University of Galway alum, Dr Martin Walsh OBE has spent 30+ years studying the structure of biological molecules. In his work at **Diamond Light Source**, Oxfordshire, Dr Walsh uses X-ray crystallography to image a range of biological macromolecules from proteins and nucleic acids to viruses at the molecular level. The technique relies on generating crystals of the macromolecules which are then illuminated with X-rays to determine their atomic structures.

At the outset of the COVID-19 pandemic, the skills of Dr Walsh and his team were diverted towards early drug discovery in the race to address the worldwide health crisis. Now in 2023, he has been named an Officer of the Most Excellent Order of the British Empire (OBE) for his services to Science during COVID-19.

Cois Coiribe: We would like to extend our congratulations on your recognition as OBE for services in science. Can you tell us more about your research at Diamond Light Source?

Dr Martin Walsh: It's an honour to be awarded this OBE; it was a complete shock, to be honest. Diamond Light Source is a facility that provides access to state-of-the-art instrumentation across all sciences, from physics to chemistry and biology. Over 14,000 registered scientists come here to use Diamond, the UK's national synchrotron facility. The OBE really recognises all of us here at Diamond, and what we have achieved for science during COVID and more generally.

You're probably wondering what a synchrotron is; you can think of it as a very high-powered microscope. We use the whole spectrum of light, from X-rays all the way through to

UV and infrared, but primarily X-rays because they are very penetrating and versatile. They are scattered, absorbed and diffracted by matter. So, we can use a range of techniques to understand the structure and makeup of for example many biological materials, probe the dynamics of these systems and understand their function. Synchrotron radiation is extremely versatile, so researchers can also exploit it to study new materials to aid the development of e.g., better batteries and more efficient data storage solutions. Through the range of techniques available at Diamond, we try to understand the fundamentals of materials and thereby, improve systems – eventually providing information for more applied research that benefits the general public.

A synchrotron is essentially a particle accelerator. We accelerate electrons to close the speed of light at high energy (3 Giga electron volts, 3 GeV). The electrons are bent in a circular orbit by a series of magnets losing energy in the form of synchrotron light which is then funnelled to dedicated experimental stations called beamlines. Synchrotron radiation was first observed in 1947 in Wisconsin, U.S.A and X-rays were discovered at the end of the 19th century by



With more reliable synchrotrons coming online in the mid-'90s, structural biology then became a really powerful way of driving forward the development of new drugs for diseases.

Wilhelm Roentgen. Synchrotrons were initially developed for use in high energy physics, looking at the fundamentals of atomic particles. Then during the late 50s and early 60s, people came to appreciate the characteristics of the synchrotron radiation for other techniques. Some scientists started using these facilities developed for high energy physics experiments parasitically and showed the potential of using synchrotron radiation more widely in a dedicated manner.

This led the development of what were termed second generation synchrotron sources to use this kind of radiation across a broad range of science (1). In my field, structural biology, synchrotrons have been essential in driving forward key research for the past 30 years. ▶





Image of microcrystals, courtesy of Mammoth.

Synchrotrons are a powerful tool for us to observe the structural makeup of the cell, and to look at the structure of individual proteins and viruses. Structural biology came into its own at the beginning of the 1980s with the development of molecular biology techniques. These technologies started to impact in the mid '80s. Molecular biology and recombinant protein production (cloning of genes responsible for encoding the information to produce a protein) in particular. I finished my degree at University of Galway in 1989, just as these had started to take off. With more reliable synchrotrons coming online in the mid-'90s, structural biology quickly became a powerful way of driving development in new drugs for various diseases.

CC: How has your research involved global collaboration?

MW: In the case of the pandemic, collaboration was unplanned and evolved naturally. I had worked with Chinese collaborators on proteins from the original SARS virus in 2002, which is very similar to SARS-CoV-2. Due to the small number of deaths, there was unfortunately no incentive from big pharma or governments to

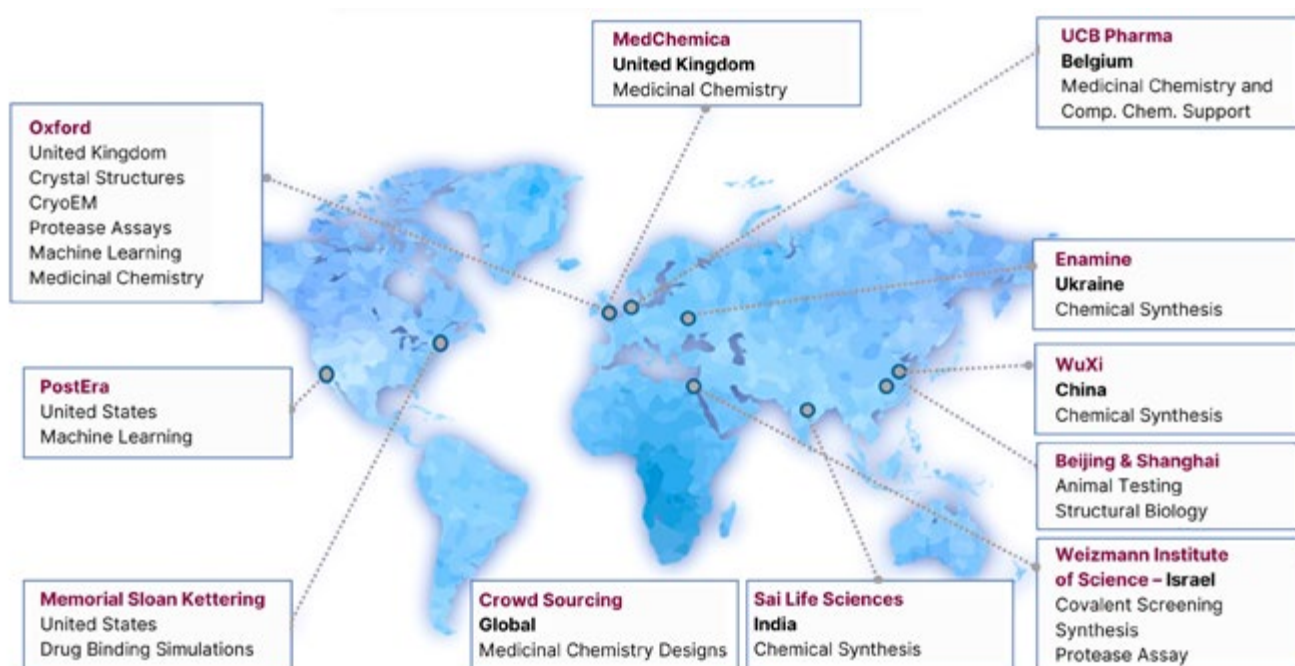
Due to the small number of deaths, there was unfortunately no incentive from big pharma or governments to provide adequate funding for drug discovery targeting the 2002 SARS virus. The irony is — had they have provided that funding, we would likely have had antivirals ready to use on SARS-CoV-2.

provide adequate funding for drug discovery targeting the 2002 SARS virus. The irony is – had they have provided that funding, we would likely have had antivirals ready to use on SARS-CoV-2. So, for a small amount of early investment, they could have potentially saved many lives and avoided the massive economic impact of the SARS-CoV-2 pandemic. So, you can see why there is now an emphasis on preparedness for future potential pandemics.

In the past, we worked with colleagues in China in particular Prof Zihao Rao (Beijing & Shanghai) and Prof Haito Yang (Shanghai). There is a synchrotron in Shanghai which is similar in capabilities to Diamond and their groups did an amazing job in starting structural work immediately as the SARS-CoV-2 virus, first isolated in Wuhan, was sequenced.

Each protein has a specific sequence of amino acids. Once the genome of the virus was sequenced, the Chinese group were able to overproduce proteins encoded by the viral genome for structural studies. They were able to quickly target specific proteins that would provide crucial structural data for drug and vaccine development. They selected a key viral protein that is essential for viral replication and made crystals of this protein, which is an enzyme known as the main protease; proteases chop up a protein at specific sites in their amino acid sequence.

They were then able to determine the structure of the protein using X-ray crystallography. Amazingly,



Moonshot and beyond – a global effort. Image courtesy of Dr Martin Walsh OBE.

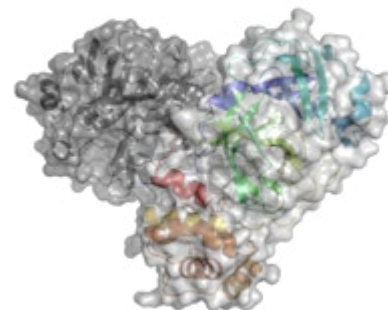
they managed to solve the structure in early January 2020, but their synchrotron was scheduled to shut down for a maintenance period and so, they contacted us to see if we could help. We said, “Yes,” just as China went into complete lockdown at the end of January. They couldn’t FedEx their samples to us with this lockdown in place. So, we ended up having to redo that work.

It was a special situation that saw us expand from a team of four at Diamond to a network of academics and industry leaders across the globe. Our unplanned project had developed into a compound that was a serious candidate for drug discovery within 18 months.

We were lucky. If we had started a few days later, we wouldn’t have achieved our goal in time because a lot of the laboratory supplies, especially for molecular biology, are

sourced from China. With the lockdown in place, you couldn’t get consumables essential to the experiments. Avoiding that obstacle, we managed to clone and produce the protein by the 14th of February. On Valentine’s Day 2020, we had our first protein crystals – reproducing the work of the Chinese group with their advice on what had worked for them. From then on, it was a roller coaster. There were many challenges to overcome but luck was on our side and we overcame what could have been major problems.

After the experiment, we decided to release all the information immediately. Developing a new antiviral can take 10–20 years; we didn’t expect to move things forward at that speed but we had diverted all our resources to this project from this very early stage before we even went into lockdown in the UK. While everyone was sat at home in April of 2020, I sent out a **Tweet** telling everyone what we had done. It may not have been viral by influencer standards but it certainly was viral for me as a scientist. All I could hear was the, “Ding, ding, ding” of my phone. We received a massive response.



SARS-CoV-2

Of the companies keen to engage, the first was **PostEra**, a start-up that uses AI machine learning to accelerate the design of new compounds to be taken forward for drug discovery. Working with PostEra and another group from Israel, we made the data more accessible through an interactive database. Additional Tweets were published asking medicinal chemists to look at the data and suggest compound designs. We also got other academics and industry partners involved.

One partner, a Kiev-based chemical company called **Enamine** had a ►

major library of compounds and the expertise to synthesise new chemical designs proposed by the chemists who engaged in the call. With Enamine, we started to synthesise designs from 350 chemists across the world, analysing their interaction with our protein. It was a special situation that saw us expand from a team of four at Diamond to a network of academics and industry leaders across the globe. Our unplanned project had developed into a series of compounds which were credible drug-like compounds that were serious candidates for taking to clinical trials, all of which happened in approximately 18 months.

We now have \$67 million in funding from the NIH (the U.S.A National Institutes of Health) for an official three-year project coined ASAP, involving many original partners. That funding will allow us to apply a similar methodology to the range of viruses that could potentially start another pandemic. One major thing to come from COVID is awareness around pandemic preparedness. Horizon Europe, for example, are now funding researchers to work together to make educated guesses on viruses that could potentially cause the next pandemic.

Doing open science when you want to deliver a commercial drug is challenging, but the COVID Moonshot project shows that this is possible.

CC: You have taken an open-access approach in your work on the proteases of SARS-CoV-2. How important was this decision and did you face any challenges?

MW: Doing open science when you want to deliver a commercial drug is challenging, but the COVID Moonshot project shows that is possible and will continue through our NIH-funded ASAP centre, which uses a combination of experimental techniques and AI to develop antivirals against a plethora of potential pandemic-causing viruses. A lot of research on third-world diseases go unfunded because there is no market incentive in developing countries. From our perspective as scientists, the project was easy to start but when it

comes to the nitty gritty of licensing and clinical trials, there is some work involved. We're now taking this pilot project forward with DNDI (Drugs for Neglected Diseases Initiative), a non-profit NGO that helps to fast track new therapeutics for neglected diseases and their expertise was key for taking forward the COVID Moonshot initiative with funding from the Wellcome trust, a charitable organisation based in the UK which provides support to scientists in the life sciences.

Sir Dave Stuart was looking at new variants as they emerged, characterising the binding of antibodies to them in near real time — it was completely crazy.

CC: You're often observing life at a cellular level. Has this shaped your outlook on the world?

MW: I first got into crystallography at University of Galway, after some convincing from Prof Patrick McArdle who has a way with words and of sharing his enthusiasm for chemistry. At the time, everyone told me I was completely mad because it was the very beginning of protein crystallography in Ireland, and there was no money. But understanding the synchrotron and having the opportunity to do experiments there – really was a pull.

I started looking at things that people had never seen before, understanding them at the atomic level. I don't think this necessarily changed my general outlook on life, but it is cool to look at something so small and be able to understand how it works. Now the field is changing again. We can do amazing things through cryo-electron microscopy (Cryo-EM), where electrons are used instead of X-rays. With cryo-EM we can now look at the structure of proteins in their natural cell environment on the nanoscale (10⁻⁹ M or 1 billionth of a metre!).

Exploiting molecular biology techniques, we are able to clone proteins and purify them in high enough quantities to then crystallise them and use X-ray crystallography to determine their three-dimensional structures where we can distinguish

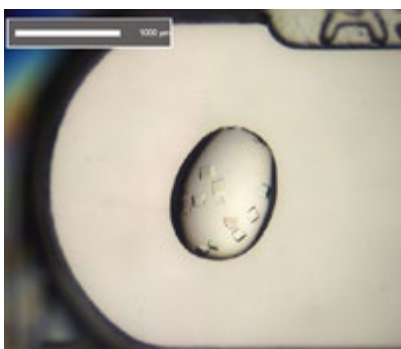
individual atoms. With electron microscopy, we can bypass the need to grow crystals and can even take single cells, freeze them and use a technique whereby you look at the structure of the protein(s) in their natural cellular environment at resolutions close to atomic resolution.

Other groups here in Diamond worked with the Oxford Vaccine Group which developed the AstraZeneca vaccine. The AstraZeneca vaccine uses the spike protein of the SARS-CoV-2 virus as the antigen to generate an immune response. At Diamond, to ensure the vaccine generated the active structural conformation, researchers used cryo-EM to visualise the structure of the spike protein produced by the vaccine in the cell. The spike protein is presented on the outside of the virus structure and is essential for the virus to penetrate the cell. The spike protein has a dynamic structure with different conformations before and after it fuses with cells. Through electron microscopy, we were able to show at high resolution that the spike protein produced by the Oxford/Astra Zeneca vaccine had the right conformation when produced in the cell to raise a strong immune response to SARS-CoV-2. Being able to see viruses in the cell at the nanoscale is a new frontier for structural biology.

CC: It must have been surreal to look at the virus up close while the pandemic unfolded around you. How can this help us prepare for future pandemics?

MW: Our director here at Diamond, Sir Dave Stuart, was looking at new variants as they emerged, characterising the binding of antibodies to these variants in near real time – it was completely crazy. They were identifying the variants of concern very quickly, and assessing the changes in the spike protein structure that allowed the virus to evade the antibody response. Investment in Diamond since its establishment in 2022 has been around £1.3 billion, but we've generated far more impact than that. It was recently estimated that we have had a £2.6 billion impact on UK science and economy since 2007. We just received funding of just over half a billion from the UK Government and the Wellcome trust to upgrade the whole facility by 2030. That will prove essential in preparing for the next pandemic and for other challenges like antimicrobial resistance.

Even though the pandemic was massive, people can quickly forget. Sometimes it takes someone falling off a bridge for us all to decide to fix the railing. We can't simply react; we have to prepare for these things. And we need to work hard to raise public awareness on the impact of continued investment in science. If we had never received the support and training here to work on the first SARS pandemic in 2002, we would never have achieved the same progress with the work we did on SARS-CoV-2. To bring together good scientists and solve global challenges, you need consistent funding.



Crystals of the two SARS-CoV-2 proteases produced in the Walsh group at Diamond Light Source. Left: the initial crystals obtained for the SARS-CoV-2 main protease were utilised in the X-ray fragment-based screening experiment¹ that led to the unique open-science, crowd-sourced COVID Moonshot project. Right: crystals of the papain-like SARS-CoV-2 protease – another potential target for development of antivirals against SARS-CoV-2. Images courtesy of Dr Martin Walsh OBE.

CC: As a kid growing up in Westport, did you show an early interest in science?

MW: People often have wonderful answers to this question – “At the age of five, something happened and I thought, ‘Oh yes, I want to be a scientist!’” I never related to this, for me it was more a journey of fortunate encounters or accidents. I think everyone finds science fascinating. I do remember getting a

chemistry set from Santa at eight though, which was great fun.

I started secondary school in England before moving back to Westport. In the UK, I was given my first taste of doing practical science experiments as well as woodwork and metalwork classes. I had only spent my first term of secondary school in England before moving back and ending up in sixth class (due to the different school system). By the time I started Irish secondary school, I was excited to get back to doing science practicals, but it wasn't until I entered fifth year, I finally got to do hands-on experiments in science as well as building projects through doing building construction for the leaving cert.

Back in the 80s, everyone I knew wanted to be an electronic engineer. I didn't know what I wanted to do but I liked science. Prof Frank Gannon ran a Master's in biotechnology course at University of Galway. In fifth year at secondary school, I wrote to the department, and they actually replied. I was surprised to hear back from them, and that always stuck with me. They recommended a basic degree in the sciences before moving onto doing something like biotechnology through a Master's degree.

So, in the end I decided to do the B.Sc. degree at Galway which was a great decision. In first year science, all the sciences were taught, and I took a real interest in chemistry but for the more focused areas of biology i.e. microbiology and biochemistry, there were a short series of lectures and for microbiology these were given by Prof Peter Smith, and he was exceedingly charismatic. So, I ended up focusing on chemistry microbiology and maths in second year science ultimately taking Chemistry as my major and microbiology as my minor subject and hence my windy road from not doing chemistry at school to ending up as a chemist.

By the time I finished up at university, I was having so much fun in Galway and enjoying the science. A bunch of us thought, “Who wants a job at 21?” So, being keen to do research we did a Master's or PhD instead. You shouldn't say those kinds of things, but many of us from the class of '89 have remained in academia. So, it wasn't such a bad thing! I didn't have

a vision – just a rocky road influenced by the people I came into contact with. Fortunately, Prof Patrick McArdle, Prof Des Cunningham and Prof Tim Higgins had started a crystallography group in the chemistry department and had visited a world-leading protein crystallography lab at York university in the UK during the summer of 1989 to learn what was needed to do protein crystallography. Their enthusiasm convinced me to do my PhD in protein crystallography.

I still keep in contact with the University of Galway and people in Mayo. Strangely, at that time, I was convinced that Ballina had the highest concentration of trained crystallographers in Ireland. **If there was an all-Ireland competition for crystallographers, Mayo might still win.**

(1) The first dedicated synchrotron was built just outside Manchester in Daresbury, UK in 1980. In 1994, 12 European countries came together to build the first third-generation synchrotron in Grenoble, France. This is a 6 GeV machine and was followed by other similar machines in Japan and the U.S.A. The technology developed to realise ESRF and other synchrotrons led to more compact medium energy machines being built across the globe by individual countries as national facilities such as Diamond in the UK which is a 3 GeV machine, Elettra in Trieste (2.4 GeV), Soleil in Paris (2.75 GeV) and Alba in Barcelona (3GeV) to name a few.

Dr Martin Walsh OBE is Deputy Director of Life Sciences at Diamond Light Source. Walsh is also a Research Group Leader at the Research Complex at Harwell (RCaH). He joined Diamond in January 2009 from the Medical Research Council (MRC), France. After graduating from University of Galway (formerly UCG) with a first class Honours degree in Chemistry in 1989, he remained at University of Galway for his PhD which used X-ray crystallography to characterise the bacterial protein flavodoxin.

In 2009, Walsh joined Diamond Light Source with responsibility for life science research. He was made an Officer of the Most Excellent Order of the British Empire (OBE) for services to Science during Covid-19, in the King's first Birthday Honours List in June 2023.

The Real-World of Cyberbullying

Dr Mairéad Foody,
Assistant Professor, School of Psychology,
University of Galway

Easy access to virtual social space has seen young people face dangers of cyberbullying, sextortion and online victimisation. Many primary schools have taken steps to ban smartphones on school grounds, following the launch of government guidelines on restrictions of smartphone use among young people. According to Assistant Professor of Psychology, Dr Mairéad Foody, research is key in informing quality prevention and intervention among schools, parents and guardians.

Cois Coiribe: How important is research and education in preventing online victimisation among young people?

Dr Mairéad Foody: It is extremely important! Research has the power to inform high quality prevention and intervention efforts in schools. We know, for example, that bullying behaviours change with age where more overt and physical bullying is associated with primary school, but more covert and indirect bullying and cyberbullying becomes more common in post-primary school.

In Ireland, the rate of bullying is around 25% and this drops to approximately 10% for cyberbullying alone. We also know that there can be a gender element where physical bullying is more prevalent among boys but relational bullying (e.g., spreading rumours about someone) is more common for girls.

In terms of impact, the literature is clear that bullying and cyberbullying can have a devastating psychological impact on young people. It has been associated with higher rates of anxiety and depression, as well as higher school dropout rates and early school leaving, unfortunately.

Research can also remind us of important things in our lives. For example, other research I have been involved in has suggested the importance of friendships in 'buffering' the negative impact of cyberbullying experiences. It might not prevent victimisation, but having a good social network can sometimes increase a person's resilience to stressful situations.

Regardless of the location (online or offline), preventing victimisation of our young people is best done with a whole-community approach. This involves all members of the school community from admin staff to teachers, to tutors, principals, students and parents, in efforts to tackle bullying and harassment. That said, research involving all of these stakeholders (and not just the young people themselves) is also essential, so that they have the necessary skills and strategies to deal with it in an effective manner. ►

The literature is clear that bullying and cyberbullying can have a devastating psychological impact on young people. It has been associated with higher rates of anxiety and depression...



Effects

Society can still be a very unfair place for young girls in particular, and despite some positive developments in many cases, they are often held accountable for their own victimisation.

CC: Some of the sub-goals of (UN Sustainable Development Goal) SDG 16 include preventing violence, abuse and exploitation. Which issues in particular call for urgent action in your view?

MF: It is difficult to say that one sub-goal is more important than another when they are all generally working towards improving the lives of children. As you mentioned, SDG 16.2 relates specifically to the reduction in violence against, and exploitation of, children and teenagers. Dangers in digital and online environments fall within this remit and my work has focused on the negative impact of cyberbullying and image-based abuse of teenagers. Such negative experiences are far-reaching, and examples include unwillingly receiving images of a sexual nature or having personal images shared online without one's consent. I do think this area needs urgent attention in terms of research and policy, especially given recent developments in Artificial Intelligence. For example, there have been cases recently in Europe of bullies using AI to create nude pictures of young girls and sharing them on social media. I worry that AI could be used to target more victims in the future and think it is an area requiring urgent regulation.

These demands are sometimes financially motivated or in some cases, a way of seeking more intimate images and videos and/or further sexual interactions.

CC: What are some of the key factors slowing down progress in these areas?

MF: I think we still approach the issue of online victimisation through a victim-blaming lens. Society can still be a very unfair place for young girls in particular, and despite some positive developments in many cases, they are often held accountable for their own victimisation. In addition, many of our efforts to help end up placing more responsibility on the victims which further feeds the problem. This is particularly true of image-based abuse where prevention efforts are focused on stopping young people from sharing images. While these are worthwhile, they often fail to have a long-lasting effect because they haven't focused on the perpetrators.

CC: We have seen a soar in 'sextortion' cases in recent years. Can you give us an idea of the scale of this issue and its impact on mental health & wellbeing, particularly among young people?

MF: Sextortion relates to threats to distribute intimate images or videos of an individual if they don't comply with the demands of the perpetrator. These demands are sometimes financially motivated or in some cases, a way of seeking more intimate images and videos, and/or further sexual interactions. Investigations into sextortion in adolescent populations are only starting to emerge in the psychology literature and one recent study by Gámez-Guadix and colleagues in Spain reported a prevalence rate of 2.6% for victimisation. This is thankfully lower than the rates of cyberbullying and bullying but still an important issue when you consider the negative impact such an event can have on young people's mental health.

Online safety should be something every member of society knows about, as it has implications for preventing fraud and other cybercrimes. I also think, in terms of image sharing, that adults could be better role models.

CC: What are we still getting wrong in our approach to online safety?

MF: I sometimes wonder if online safety campaigns are often too focused on teenagers and young adults specifically. Online safety should be something every member of society knows about, as it has implications for preventing fraud and other cybercrimes. I also think, in terms of image sharing, that adults could be better role models. For example, we rarely ask for each other's consent to share images and yet we tell young people they should do it with highly sensitive photos — photos that they are probably embarrassed to talk about, never mind ask permission! How many times have you been in a WhatsApp group where someone has shared a video or a picture of someone that they might not even know? I think all members of our society, not just teenagers, need to be more responsible when it comes to the images and videos we share.

CC: How do you deal with the emotional charge of issues such as cyberbullying and online victimisation, given the time you commit to your research and the difficult conversations involved?

MF: Thank you for asking that question — it isn't one I have been asked before. For some research studies, I have had to read literature on child sexual exploitation and that really is a difficult space to work in. It is very hard not to become emotional when you think about child victims of sexual abuse and exploitation. I guess I believe in the power of research in that it can be used as a vehicle to create positive change in society. Research can be used to improve the lives of children; that is what keeps me motivated.

It is very hard not to become emotional when you think about child victims of sexual abuse and exploitation. I guess I believe in the power of research in that it can be used as a vehicle to create positive change in society.



Dr Mairéad Foody is an Assistant Professor in Psychology at University of Galway. She has a PhD in Psychology and several years of international applied research experience with young people. Dr Foody has published widely in the area of developmental psychology and is particularly interested in the impact of cyberbullying and bullying on psychological development. She holds several prestigious awards for her research such as the Government of Ireland Postdoctoral Fellowship, the James Flaherty Scholarship and the Marie-Sklodowska-Curie COFUND Research Fellowship.



Food Systems are Failing SDG Efforts: What are the Trade-offs?

Dr Anne Mullen,
Lecturer in Climate Change, Agriculture
and Food Security, University of Galway

According to Dr Anne Mullen of the School of Biological and Chemical Sciences and the Ryan Institute, sustainable food systems are a key entry-point to accelerate progress across multiple SDGs. University of Galway is uniquely placed to understand and act on food systems—and our designation as SDG Champion gives us an even greater voice and responsibility to do so.

In 2015, the United Nations shared an ambitious vision for 2030; the Sustainable Development Goals (SDGs) are committed to tackling poverty, health, education, inequality, economic growth, environmental degradation and climate change. We are now mid-way in the 2030 agenda, and the stocktake is sobering; it looks like none of the goals and just 12% of the targets will be met. Progress has been dealt a series of blows from a 'toxic cocktail' of COVID-19, regional geopolitical conflicts, a global cost-of-living crisis and the devastating impacts of increasing climate change.

Down but not out, the 17 SDGs and their 169 targets are still recognised as one of humanity's best shots for a prosperous and resilient future; but to regain ground and accelerate progress towards the 2030 agenda, we need to shift focus from individual SDGs to thematic entry points that span multiple SDGs. The *Global Sustainable Development Report* identifies six of these themes¹, one of which is sustainable food systems.

Contemporary food systems are responsible for one-third of anthropogenic greenhouse gas emissions, immense biodiversity loss, environmental pollution and natural resource degradation.





What are food systems?

Global food systems — the complex, networks of actors and actions involved in food production, processing, distribution and consumption — are currently not sustainable. They are responsible for one-third of anthropogenic greenhouse gas emissions, immense biodiversity loss, environmental pollution and natural resource degradation. With 750 million people facing hunger, three billion people unable to afford a healthy diet and one third of the world's population affected by overweight and obesity, it is clear that food systems are also failing human health. Furthermore, they are characterised by gross inequalities, corporate power concentrations and uncoordinated institutions for governance.

So, what does a sustainable food system look like? Sustainable food systems are based on the majority of the SDGs – including zero hunger, life on land, life below water, decent work and economic growth, responsible production and consumption, climate action, gender equity, and peace, justice and strong

institutions. But the goals and targets of the SDGs don't always synergise for food systems.

Fostering interdisciplinary sciences (life, physical and social), University of Galway is well-placed to broker the difficult conversations on trade-offs in sustainable food systems transitions.

Professor Charles Spillane, Director of the Ryan Institute highlights that “There is a lot of rhetoric on sustainable food systems at present, but the reality is that there are contested pathways towards more sustainable food systems, that all involve significant trade-offs and co-benefits with other development outcomes. In addition, the evidence base (from local to global) to support sustainable food systems transitions or transformations is lacking. University of Galway’s Ryan

Institute is now conducting research and innovation with national partners across Eastern and Southern Africa, South East Asia and Small Island Developing States. These are interdisciplinary research projects, with a strong emphasis on social inclusion to ensure that the most marginalised are not negatively impacted by sustainable food systems transitions.”

Fostering interdisciplinary sciences (life, physical and social), University of Galway is well-placed to broker the difficult conversations on trade-offs in sustainable food systems transitions. The recent designation as national SDG Champion for 2023–24 gives us a unique platform to champion science-based, socially responsible and politically-supported food systems transformation. ►

Barriers to sustainable development

The goals and targets of the SDGs don't always synergise — there are trade-offs — and fixation on individual SDGs is a hurdle for progress. Mechanisms that zone in on achieving zero hunger can compromise targets for sustainable development of life on land and life below water, for example. Sustainable development of food systems and the SDGs was discussed at a recent event held by the School of Biological and Chemical Science during the University of Galway's inaugural SDG week¹. The Sustainable World Section of the school convened an audience of staff and students from across the University to discuss the risks that today's food systems pose to human and planetary health, technological and scientific solutions — and the greatest challenge of all, humanity's willingness to change.



Panelists (seated) Gretta Fitzgerald, Ronan Sulpice, David Styles, Adam Mullins, Rachel McArdle and facilitator (standing), Anne Mullen. 'Sustainable Food Systems and the SDGs' event at University of Galway in September, 2023. Photo by Martina Regan.

We must steer towards a robust vision that connects technological options for emissions abatement with carbon sinks and land use change — but are Irish citizens, food producers and politicians willing to change?

The greatest challenge is human willingness

Millions of people are living on the precarious edge of hunger today, even though, globally, we have the resources and the technology to end hunger. Gretta Fitzgerald, Food Security & Nutrition Policy & Advocacy Adviser at Concern Worldwide, explained that what's missing is a cohesive, coordinated response to the food crisis that will transform food systems for the future. That includes investing in agriculture in low-income settings to ensure sustainable economic returns for farmers and the communities they live in, but also for restoring the environment and biodiversity — a win-win for food security and climate action. David Styles, Associate Professor in Agri-sustainability, also noted a gap in visionary leadership for Ireland's future with food production. Current land-based food activities are big emitters and responsible for biodiversity loss and environmental degradation. Ireland must look to diversify agricultural activities, shift national land use to increase carbon sinks and substitute GHG-intensive products with biobased value chains. We must steer towards a robust vision that

connects technological options for emissions abatement with carbon sinks and land use change — but are Irish citizens, food producers and politicians willing to change? Regarding the potential of marine biodiscovery and innovation for sustainable food systems and food security, Dr Ronan Sulpice from the School of Biological and Chemical Sciences was cautious. While aquaculture is seen as favourable, cultivating high trophic level species, such as carnivorous fishes, has negative impacts on water quality, the release of nutrients and emissions. Cultivating seaweed captures carbon and decreases nutrient levels in water but, at large scale, may impact phytoplankton biomass essential for functioning marine ecosystems. This is just one of many gaps in our knowledge about SDG trade-offs; in this case, we don't fully yet understand the future impact of large-scale cultivation of seaweeds on the local ecosystems. These questions need to be considered by policy makers and scientists in a concerted effort if we want to develop sustainable marine-based food production.



L-R: Adam Mullins, Gretta Fitzgerald (Concern), Nicole Olweean, President Professor Ciarán Ó hÓgartaigh, Dr Rachel McArdle, Dr David Styles, Dr Anne Mullen and Dr Ronan Sulpice. Photo by Martina Regan.

While Gretta, David and Ronan highlighted gaps at the interface of science and policy, Lecturer in Social Sciences, Rachel McArdle spoke about the interface of science and policy in sustainable food and energy systems. Again, one of the main challenges identified was human agency — our individual and collective willingness to change. That agency was exemplified by Adam Mullins, an Astrophysics student at University of Galway. Aware of the problems for students regarding food costs, skills and waste from supermarkets (food waste alone accounts for 20% of emissions from the food system), Adam set up the Student Pantry, supported by the Students' Union. The pantry now serves 400–550 University of Galway students per week with food from supermarkets that would otherwise go to waste. Adam's commitment to food systems transformations in the University of Galway has been recognised by the Irish government, where he was an invited member of Ireland's Youth Delegation to the FAO's World Food Forum in 2022. This is precisely the kind of synergy needed to carry through the UN's ambitious plan for 2030, and sustainable food systems offer a lens through which we can build these synergies.

¹ This event was held by the School of Biological and Chemical Science and facilitated by Anne Mullen.

Dr Anne Mullen is a Lecturer in Climate Change, Agriculture and Food Security in the University of Galway. Anne's research and teaching is on developing sustainable food systems that deliver nutrition and health for all within planetary boundaries. As a researcher and lecturer at the London School of Hygiene and Tropical Medicine and King's College London between 2005 to 2014, Anne's work was predominantly on maternal and child nutrition and health within HIV endemic communities in Zambia and Uganda. In science communication roles, Anne was the Director of Nutrition for the Dairy Council of Great Britain (2014 to 2018) and the launch Chief Editor of Nature Food (2019 to 2023). As a moderator, she has facilitated sessions and side-events at the UN Food Systems Summit Science Days and Nutrition for Growth Summit in 2021, and the FAO's Science and Innovation Forum and International Congress of Nutrition in 2022.

The goals and targets of the SDGs don't always synergise — there are many trade-offs — and fixation on individual SDGs is a hurdle for progress.

In Conversation— Dorothy Creaven, Rent the Runway

Dorothy Creaven,
VP, Managing Director and site lead,
Rent the Runway

Since its 2009 launch, Rent the Runway has made headlines as a sustainable alternative to fast fashion, and more recently as the first female-founded company with a female CEO, COO and CFO to go public. Rent the Runway’s e-commerce service allows users to rent clothes from 800+ designers, disrupting a trillion-dollar fashion sector. At its European HQ in the heart of Galway City, University of Galway alum Dorothy Creaven is transforming the company’s digital infrastructure as VP and Managing Director. We sat down with Dorothy to discuss the impact of her work in building a sustainable future for fashion.

We estimate that our business model has displaced the need for new production of 151,523 garments in 2022... We have a 100% diversion rate and none of the Rent the Runway garments that we dispose of end up in landfill.

Cois Coiribe: Tell us about Rent the Runway and why sustainability is at the heart of your company’s mission?

Dorothy Creaven: Rent the Runway is disrupting the trillion-dollar fashion industry and changing the way women get dressed through the ‘Closet in the Cloud’, the world’s first and largest shared designer closet. Our customers can subscribe, rent items à-la-carte and shop resale from hundreds of designer brands. Our platform, built out of Galway and New York, is powering a new frontier for fashion, where women buy less and wear more. So, our customers are contributing to a more sustainable future.

Rent the Runway takes a really unique approach to sustainability because of the business model that we have, and we go beyond the typical commitments, such as decarbonisation, that you see from other brands.

The majority of fashion’s environmental impact occurs at the manufacturing stage. Rent the Runway’s rental subscription model allows us to prioritise access to fashion over excess production. We’re encouraging customers to rent versus purchasing new. From our November 2022 Member Survey, we can see that 82% of subscribers buy fewer clothes than they did prior to joining RTR. We estimate that our business model has displaced the need for new production of 151,523 garments in 2022 (full details are in our 2022 Annual Report).

Several ambitious sustainability initiatives have already been successfully implemented at Rent the Runway. For example, renters have 100% of their estimated carbon emissions offset from shipping, mitigating the footprint of back-and-forth shipping. That sustainability thread extends through the life cycle of Rent the Runway’s clothes. We send nothing to landfill, even after the clothing has come to the end of its





life. We have a 100% diversion rate. Rent the Runway was founded on the concept of a circular economy, and none of the Rent the Runway garments that we dispose of end up in landfill.

CC: What role does the Galway technology office play in supporting Rent the Runway's growth and sustainability targets? Is there much collaboration with your colleagues in the US?

DC: The Rent the Runway team in Galway is essential in designing and building innovations that allow us to deliver on business and ESG targets. We are a digital business and technology is the foundation. The infrastructure we have built has enabled Rent the Runway to disrupt the trillion-dollar fashion industry and set new sustainability standards in the fashion world.

A good example of this is our recent design and development of an award-winning machine learning

algorithm, which was built on user garment fit feedback from 18 million rented items in the US. The success of this innovation has driven more effective utilisation of inventory and enhanced the customer experience. Rent the Runway engineers in Galway continue to work and innovate in other deep learning technology areas which have innumerable potential applications for the field of fashion.

Having two technology locations (New York and Galway) allows for a super productive workflow. Our engineers in Ireland can work uninterrupted in the morning as the US comes on stream in the afternoon. Similarly, the US has their afternoons uninterrupted by the Galway office and collaboration happens in that cross over period. This kind of model helps the company to have services always online, with the team split across several time zones.

The technology teams on both sides of the Atlantic are always working collaboratively to make improvements

to our tech stack. Recently, we completely migrated to the cloud to allow for greater scale, enhanced resiliency, and faster site-speed. This is an important milestone which we think will be key to unlocking even better resiliency, performance, and reliability at Rent the Runway, as well as helping us to scale the company more efficiently. ►

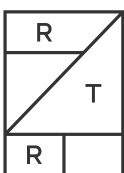
Proximity to the University of Galway formed a strong basis for our decision to set up our European Headquarters in the heart of Galway.

CC: Why was Galway selected for Rent the Runway's first office outside of the US, and did the University of Galway play a role in the decision to locate here?

DC: Ireland has a strong reputation for top tier technology talent, especially given the significant investment the government has made in education over the past three decades. Rent the Runway attracts tech talent from across Ireland and internationally but the strategic positioning of the Galway office near some of the best universities in Ireland gives Rent the Runway access to strong up-and-coming talent within the area. And this includes the University of Galway and ATU engineering department graduates. So yes, proximity to the University of Galway formed a strong basis for our decision to set up our European Headquarters in the heart of Galway.

In addition to academic excellence, Galway was also chosen as it feels like a natural second home for Rent the Runway. We feel strongly that the diversity and values of both the city and the company are culturally and creatively aligned.

Since 31 January 2023, 75% of our U.S. corporate employees identify as women or non-binary, and 44% of our U.S. corporate employees identify as a racial or ethnic minority.



CC: Rent the Runway famously was the first female-founded company with a female founder/CEO, COO and CFO to go public. How important do you think diversity has been to the success of RTR?

DC: Rent the Runway has disruption at its core and diverse teams bring diversity of thought which helps the disruptive process. Great ideas come from the widest range of people and their diverse expertise and experiences.

Lots of companies talk about diversity, but we walk the walk. This awareness of bias helps us avoid accidental exclusion at the hiring stage, and our company teams and structures directly and positively reflect this. Since 31 January 2023, 75% of our U.S. corporate employees identify as women or non-binary, and 44% of our U.S. corporate employees identify as a racial or ethnic minority.

CC: What advice would you give to graduates entering the tech workforce today?

DC: We often see in industry that different technologies come and go, but the core fundamentals remain the same. My advice for graduates is to make sure you are extremely competent in the core fundamentals of any technology or programming language. Continue to educate yourself and have a growth mindset. Read as much as you possibly can about a topic, subject, or industry. Aim to become an SME (subject matter expert) in the area that you operate in, no matter how big or small that area may be. That includes reading all documentation, industry articles and whitepapers, or by simply asking people more experienced than you about their thoughts on a particular topic. Join tech discussion groups, both in the office and outside, to see what nuggets of gold you can pick up along the way. You will always learn something from everyone.



Dorothy Creaven is Vice President, Managing Director and site lead at the Rent the Runway in Galway. She is an Electronic Engineering graduate from University of Galway, and has 20 years' experience in enterprise software, tech start-ups, and leadership for SMEs and multinationals alike. Her professional experience also includes working with international corporate companies such as Google, Abbott Vascular and EPAM Systems, a US publicly listed Forbes Fast 25 Tech company. Listed as one of Ireland's top 25 women in engineering, Dorothy also co-founded her own multi-award-winning technology startup, Element Wave, successfully operating globally from Galway from 2010 to 2017. Most recently, Dorothy joined the Board of Directors of Croí Heart & Stroke Charity, and continues to mentor early stage tech startups in her spare time.

Learn more about Rent the Runway [here](#).

A Legacy of Knowledge

Over many decades, alumni and friends of University of Galway have been generously supporting education and research through a donation in their will. A legacy gift is a special way for our community to support the future of the University and have a lasting personal impact.

If you would like to learn more about planned legacy giving, please contact Julie Stafford, Director of Development and Alumni Relations at julie.stafford@universityofgalway.ie.

A photograph of three students walking down a set of stone steps. On the left is a man with a beard wearing a green t-shirt and blue shorts. In the middle is a woman with long red hair wearing a colorful patterned top and a black skirt. On the right is a woman with braided hair wearing a red top and black pants. They are walking towards the camera. In the background, there is a large stone building with a prominent archway. The scene is brightly lit, suggesting a sunny day.

University
ofGalway.ie

Sustainability at a glance...

Top 2% 

of universities in the QS World rankings

In 2023
University of Galway designated a national 
SDG Champion


World top
34
for progress towards the UN-SDGs
Times Higher Education Impact Rankings 2023



1st
in Ireland for sustainable development
Times Higher Education Impact Rankings

Since 2020
we have spun out
14 companies

Research collaborations with **5,015** institutions
in **178** countries

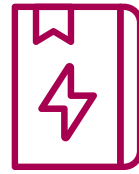


With over
19,000 students
 **18%** of which are international
122 students from countries

€71m 
research fund
>50 research collaborations with industry in 2021

Ranked
Responsible Consumption and Production
5th
 in the world
 for SDG 12
 Times Higher Education
 Impact Rankings 2023

The SEAI Annual Report
 2022 on Public Sector
 Energy Performance



52% *energy savings*

highlights our 52% energy savings since the baseline year.

University of Galway
 recognised with a



Stars Gold Rating
 2021-2024

AASHE

Awarded



An Taisce Green-Campus Ireland Flag

2018 and 2022

Most
biodiverse
 university campus in Ireland



Our students were winners of the

ENLIGHT

Global Citizenship Award 2023



Ranked
Top performer

AASHE 2023 Sustainable Campus Index



20 e-car charging points across campus

Awarded



An Taisce Green Flag for parks

2023

Ranked
120

in the QS Sustainability Rankings 2024

Aligning our Research with Sustainable Development Goals

Prof James Livesey,
Vice President for Research and Innovation, University of Galway

In today’s hyper developed and interconnected world, we see isolated actions give rise to global repercussions like never before. As a framework for addressing global issues, the UN Sustainable Development Goals are a call to action for universities to consider the wider impact of their research. Here VP for Research & Innovation, Prof James Livesey explains how the SDGs have inspired a new approach to research strategy and prioritisation.

Cois Coiribe: How does the university integrate SDGs into the overall research agenda?

James Livesey: It’s easy to dismiss SDGs (UN Sustainable Development Goals) as another buzzword, but these goals matter. They provide a blueprint and framework through which we can address global issues. We need to consider the SDGs in the wider context of the green and just transitions. Green and just transitions are other terms that may have lost their impact from overuse. They ask us to develop new criteria of assessment for everything that we do. It means that we have to work out — not just new ways of doing things — but also what is worth doing. People who work in universities are often passionate about their own particular field. We are now asking researchers and academics to lift their eyes and ask, what is the wider context? One of the best things about the SDGs is that they offer an agreed international set of metrics. Many have poured thought into these metrics, and they help us decipher what is worth doing in the collective drive towards a more resilient planet. These metrics encourage us to ask ourselves: where are we making positive contributions?

For example, our university is the best in Ireland on SDG 14, *Life Below Water*. That’s no surprise; Galway has been involved in marine science for 50 years. But this engagement has a wider impact. We also live in a region with some of the most important wetlands in Western Europe. We are developing a better understanding of the incredible role of peatlands in carbon sequestration (the capturing and storing of atmospheric carbon dioxide). The SDGs reinforce our strategic intent, giving shape to what was our own ambition to begin with. With this external signal, we’re clear on where we can make a difference.

Internally, the SDGs also help to fairly explain our decision making around scaling and support. Support for research comes down to a set of criteria to which we’re all committed. However, the SDGs as a quantitative measure are not enough. We also need stories. What are some tangible examples of positive change created by our research? We need to get better at telling those stories.

What do we need to do to grow our work in creative practice and research to the same amplitude as MedTech?





CC: Do the SDGs play a role in determining University of Galway's key strategic research pillars?

JL: A university has an effective strategy when its internal capacity responds to the opportunities in the external world. Sometimes that world is at your doorstep, sometimes it's on a different continent. The only developed industrial cluster in Ireland currently is MedTech (Medical Technology). Galway is at the centre of one of the five top MedTech hubs in the world, creating large-scale impact in SDG 3 (*Good Health and Wellbeing*). When you look at the studies on the role of the university in providing talent, ideas and spinouts, our impact is clear up and down the stack. So, committing to *MedTech* is the easiest decision we're going to make. MedTech projects Galway on a global stage, particularly through its international corporations based in Galway.

SDG 11, *Sustainable Cities and Communities* indicates our strength in urban studies, and our impact in this domain. Our scores signal new interesting capacities developing there. Galway has grown more than

any other Irish city over the last 30 years. We are all aware of the specific challenges we face in Galway, but we also have enormous amounts of social capital to confront those challenges. Similarly to SDG 11, SDG 14 crystallises an intuition that we already have. ►

Our ability to live in harmony with marine life is going to determine whether or not we manage the green transition. If we go about it right, we could put Galway at the spearpoint of that economy.

Learn more about University of Galway's research impact case studies [here](#).

The next pillar we're looking at is *Creativity*. The university has a well-deserved reputation for nurturing creative talent. Galway City has had tremendous success with things like Druid Theatre and the Galway International Arts Festival. What we haven't really developed to the extent that we have developed in MedTech are modes of organisation that take advantage of Galway's position as a small city with the capacity to mobilise creative talent internationally. To give one example of the international potential of creativity in Galway: **Druid's three O'Casey plays** were recently brought to New York to critical acclaim by the *NYT* (*New York Times*) and others. For the university then, creativity is a promising challenge. We're now asking: what do we need to do to grow our work in creative practice and research to the same amplitude as MedTech?

Our third pillar, *Marine Sciences*, is a fascinating area. Although we are best in the country in SDG 14, the industrial cluster for the marine sciences is not yet developed. So, we are now creating a hub for the new blue economy in Galway. In GPD terms, the current marine economy is not huge but given the resources to be extracted in the next 40 years, we know that this area will be extremely important 40 years from now. Our ability to live in harmony with marine life is going to determine whether or not we manage the green transition. If we go about it right, we could put Galway at the spearpoint of that economy.

This a wonderful example of how a university is a store of social capital. You never know what kind of expertise you will need, but that expertise is usually there in the university, ready to be deployed when the moment arrives.

CC: With that in mind, can you tell us more about Ireland's construction technology centre, **Construct Innovate**?

JL: The importance of Construct Innovate lies in its capacity to drive sustainable innovation, boost competitiveness and help drive economic development within Ireland's construction industry. When the national housing emergency occurred, we already had a cluster of brilliant engineers and scientists ready to offer leadership in solving the housing crisis. Don't forget: this is not an issue to be solved across one axis. Construct Innovate is not only looking for solutions to housing scarcity; they're doing so in a way that meets the demands of the green transition. This a wonderful example of how a university is a store of social capital. You never know what kind of expertise you will need, but that expertise is usually there in the university, ready to be deployed when the moment arrives. Research prioritisation is also key. We focus on particular areas, but that doesn't mean that the standard will be different elsewhere. As a comprehensive research university, the standard is the same across disciplines; it's just that we have scale in particular areas.

CC: What surprises you about the kind of research we do?

JL: I was surprised by the efficacy of social programmes like **Active* Consent**. Active* Consent is co-created and inspired by leading research with *enormous* impact, and what's more, the actual research-led play is a great work of art. When I was in the Cork Theatre Company in the '80s, we competed with Druid and always lost. I knew that Galway was good at theatre, but I wasn't aware of the power and efficacy of this kind of emerging interdisciplinary work.

Then we have Astrophysics. This big systems modelling carried out in **Mace Head** relates to the **ICHEC** (Irish Centre for High-End Computing), and links back into **Insight** (the Insight SFI Research Centre for Data Analytics). We haven't completely connected

those pieces together yet, but that space is going to be very impactful. With Ireland now aligning with **ESO** (European Southern Observatory) and **CERN** (the European Organization for Nuclear Research), this work will find new domains and become more visible in the future.

Western countries don't tend to prioritise the issues that are much more visible and pressing in the Global South. Charles Spillane's work in food scarcity is important in this sense.

We are not always leading, however we are always excellent. You can't lead out on all 17 SDGs; that's just not how it works. There is a strong correlation between a country's wealth (GDP) and which goals are covered in research. I think we could purposely address the goals that attract a stronger focus in the Global South, such as SDG 1 (*No Poverty*), SDG 2 (*Zero Hunger*) or SDG 6 (*Clean Water and Sanitation*). Western countries don't tend to prioritise the issues that are much more visible and pressing in the Global South. Charles Spillane's work in food scarcity at the **Ryan Institute** is important in this sense. We now need to link that research with our internationalisation work in Global Galway.

In the next iteration of our SDG strategy, I would love to seek out partners in the Global South that would help us lean into those goals. As a developed, modern economy, we're going to perform well in SDG 7 and SDG 9 anyway, so why not begin to act on the other issues that we haven't planned for? In the future, I would particularly like us to excel in 16: *Peace, Justice and Strong Institutions*. That's the one that will make a real difference in the long term.

Professor Jim Livesey joined University of Galway as Vice President for Research and Innovation in February 2021. Jim joins University of Galway from the University of Dundee, where he has been Dean of Humanities since 2014. Originally from Cork and a graduate of UCC, Professor Livesey did a BA in History and Philosophy and an MA in History. He undertook his PhD at Harvard, where he was later a visiting professor, and also held positions at Trinity College Dublin, Harvard, and at the University of Sussex.

Prof Livesey continues to research in the fields of Global and Revolutionary History and his latest monograph entitled, *Provincializing Global History*, appeared from Yale University Press in 2020. Jim's latest projects are as P-I on the HEA funded Atlantic Futures collaboration and the Horizon Europe funded PACESETTERS.



The Secrets to our Future, preserved in Climate Archives

A 32-Day Research Expedition

Dr Audrey Morley,
Lecturer in Physical Geography,
School of Geography and Archaeology,
University of Galway

Observing marine sediments in the Arctic and Sub-Arctic Seas, Dr Audrey Morley looks to the past to further understand the future of climate change. Here, the University of Galway lecturer reveals to *Cois Coiribe* how she prepared for a 32-day-long journey across the Arctic aboard the RV Celtic Explorer, and what Research Project SiTrAc's findings tells us about climate change's tipping points.

Cois Coiribe: Your research looks to changes in climate from the past to understand the current crisis. Can you explain what this looks like in practice?

Audrey Morley: Paleoceanography is the study of the oceans as they were in the past, from a few hundred years to billions of years ago, using this information to understand possible climatic and biotic changes in the future. We measure past climates through indirect measures called proxies archived in marine sediment cores. These proxies can be physical, chemical or biological. As a geoscientist, I focus mainly on small marine organisms called planktonic foraminifera, a ubiquitous group of hard-bodied marine protists. They are unique among marine protists because their calcite shells are well-preserved in marine sediments providing the opportunity to establish the composition of planktonic foraminifera communities in the past. Like a time-capsule, the geochemical composition of their shells also provides a snapshot of the chemistry and climate of past oceans. This allows us to gain a better understanding of how marine environments have changed over time and crucially, an understanding of long term climate trends and the impacts of climate change on

Like a time capsule, the geochemical composition of foraminifera provides a snapshot of the chemistry and climate of past oceans.

oceans and ecosystems. My work focuses on two areas. First, I develop geochemical and microstructural climate proxies recorded in foraminifera, to reduce uncertainties associated with past and thereby, future climate predictions. Second, I am passionate about past changes in large-scale ocean-atmosphere climate dynamics during past warm climates to improve our understanding of future climate change.

We felt privileged to be near the ice edge and experience the beautiful scenery, never forgetting the precariousness of the Arctic and its vulnerability to climate change.

CC: Expedition CE23011 recently took you on a month-long journey across the Arctic and sub-Arctic Seas. Can you tell us about that experience?





Iceberg near Sermilik Fjord, East Greenland.

AM: Expedition CE23011 was a 32-day voyage onboard RV Celtic Explorer aimed at studying the Arctic environment and climate change to meet the scientific objectives of SiTrAc, a GSI-SFI Frontiers for the Future Project. The vessel set off from Killybegs, on the coast of Donegal, Ireland, on the 21st of July and headed northwards to as far as 78° north off the west coast of Svalbard, Norway — continued to work southwards along the east and south coast of Greenland — before steaming due east back home to Galway. The survey was a huge success, and due to phenomenal weather, and a great team of scientists, we exceeded our work program objectives. We felt privileged to be near the ice edge and experience the beautiful scenery, never forgetting the precariousness of the Arctic and its vulnerability to climate change. The material collected will now be analysed by a team of international researchers from Ireland, Norway, Germany and the USA led by the University of Galway. ►

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Left

L–R: Dr Audrey Morley (Chief Scientist, University of Galway), Avery Fenton (RA, University of Galway), Dr Alison Jacobel (Middlebury College, USA), Adele Westgard (PhD student Tromso University) preparing for CTD deployment from the dry lab on board of the Celtic Explorer. Credit: Alan Burns.



Blue Whale, East Greenland.





Iceberg in the Greenland Sea.

My investment in these expeditions leads to significant advances in paleoceanography because pivotal questions can only be answered at sea. Considering the pressures to publish fast and plentiful, this is a commitment that fewer and fewer scientists are willing to make.

CC: How did you prepare for the expedition and what challenges did you face?

AM: Preparations for the survey began in early 2023; materials and equipment had to be purchased or borrowed from collaborators abroad to ensure time-sensitive analyses could be performed on board. For example, a Multinet that allows the

collection of marine plankton at five different depths was sent from MARUM, the University of Bremen to Galway for the survey. Similarly, the scientific team had to be chosen and prepared for the survey. Regular meetings over six months preceding the survey ensured that we were able to meet the scientific objectives of the SiTrAc work program. Finally, the Marine Institute assisted with preparations every step of the way. They have a phenomenal team supporting seagoing scientists, I couldn't have done it without them.

CC: Can you explain the significance of your findings?

AM: SiTrAc develops an ambitious new approach to assess essential climate variables recorded in modern and fossil planktonic foraminifera using interdisciplinary methods developed in planktonic foraminifera ecology, micropaleontology, biomedical engineering, and geochemistry to significantly advance the field. My

goal is for SiTrAc to become a reference point for novel, cross-disciplinary research in palaeoceanography, providing better qualitative and quantitative reconstructions of essential climate variables. This information will enable a major leap forward in our ability to assess the sensitivity of Arctic climate and its role and variability within the global climate system. This will lay the foundation for novel conceptual interpretations, and thereby, an improved understanding of climate change.

The excitement of discovery is omnipresent, whether that's an exciting experiment, a blue whale or icebergs drifting past in the midnight sun.



Dr Audrey Morley (Chief-Scientist, University of Galway and Dr Nicolaas Glock (Hamburg University) performing micro-respiration experiments in the Nordic Seas during the SiTrAc Survey on the Celtic Explorer.

Dr Alessio Fabbri (Post-Doctoral Researcher, University of Galway) imaging and cataloging foraminifera during the SiTrAc Survey.

CC: These surveys require a lot of time and commitment. Where did your passion for this research originate?

AM: My investment in these expeditions leads to significant advances in paleoceanography because pivotal questions can only be answered at sea. Considering the pressures to publish fast and plentiful, this is a commitment that fewer and fewer scientists are willing to make. Unfortunately, this trend stifles progress and can prohibit the generation of key knowledge on how climate and ecosystems will respond to anthropogenic climate forcing. My passion for understanding how the climate system functions developed from childhood through my education and research at multiple international academic institutions. I love the challenge and the complexity of the climate system and will always strive to advance our understanding of what abrupt climate change will look like. At sea,

I love the collegiality among researchers from all over the world. Everyone is literally in the same boat and the focus is on collaboration and never on competition. The excitement of discovery is omnipresent, whether that's an exciting experiment, a blue whale or icebergs drifting past in the midnight sun. My expeditions also provide a crucial service to the community by training the next generation of ocean-going scientists.

CC: What advice would you give to students entering this field?

AM: Climate research is trans- and interdisciplinary, which means that there is room for every talent and interest. Students and researchers in my research group come from multiple backgrounds including Geography, Ecology, Chemistry, Maths, Geology and Biology. All these combined and more is Palaeoceanography and I find this diversity exciting and enriching. In Geography, at the University of

Galway, we are developing a Centre for Paleoenvironmental Research (PRU) which includes five PIs/ Lecturers, five Post-Doctoral Researchers and nine PhD students. Our research is supported by multiple state and international funders. The PRU is a really exciting group and research environment to be part of and I would encourage everyone interested in Paleoclimate research to contact us for current and future opportunities.

Dr Audrey Morley is a lecturer in Physical Geography at the University of Galway, and affiliated with iCrag, the Ryan Institute, and the PRU. In addition, she is the President of the Network of Arctic Researchers in Ireland (NARI) and the Director of the new BSc Programme in Geography and Geosystems. Audrey's research focuses on the development of palaeoceanographic tools and understanding climate dynamics of warm climates.

“Water is at the of the climate

Rory Moses McKeown,
University of Galway Alum; Senior Technical
Consultant, World Health Organization

As a fundamental human need affecting a range of SDGs, access to clean and safe drinking-water is essential to a sustainable future. Rory Moses McKeown, University of Galway alum and Senior Technical Consultant at WHO, shares his views on the challenges to water safety and access in a climate crisis, and the emerging role of water in global conflicts.

Cois Coiribe: Can you take us through an average week as a senior technical consultant for the World Health Organisation?

Rory Moses McKeown: A typical week may start from my remote office in Dún Chaoin in Corca Dhuibhne (Dingle Peninsula, West Kerry). Although my head office is in Geneva, I have been fortunate enough to be able to work remotely for the past ten years — even before it was a thing. When in Ireland, I split my weeks between working from home and renting a co-working space in the Dingle Hub which gives me a great sense of balance.

My work is hugely varied. A big part is supporting the development of WHO’s global guidance on drinking-water quality, through engagement and capacity building with partner organisations and national governments — all of which would feature in a typical working week.

My work also includes a fair amount of travel, which is not easy from West Kerry. On any given week, I could be travelling to countries within WHO’s six regional areas across the globe.

CC: As a consultant, you raise awareness and advocate for global guidelines on water safety. What impact does this work have on policy formation?

RMK: WHO’s global guidelines offer evidence-based recommendations and a framework for safe drinking-water management. They are used by policymakers and public health authorities across the world to develop, monitor and evaluate these safe drinking-water management systems. WHO guidelines are considered a point of departure for national health authorities to adapt and contextualise for the country’s needs and health priorities. In many cases, countries will have policy instruments in place and existing institutions. It can take time to work with all stakeholders and institutions towards change, but that change is a very rewarding part of the job.

We have provided support to Ukraine on safe drinking-water supply management in emergency and conflict contexts, as well as supporting planning efforts for the recovery phase.



centre crisis."

SDG 6 really is central to the attainment of all SDGs because it addresses such a fundamental aspect of human well-being, that is clean water and adequate sanitation.

My work would vary according to the country context and support needs. For example, in some of my support work, I have helped with the development of national strategy for drinking-water quality in Madagascar. We have also supported Bangladesh, Ethiopia, Liberia, Mali and Nepal in introducing and scaling up risk-based approaches to water supply management. So in that case, we're working on development on scaling. This can be quite different from the work we do in, say, Ukraine. We have provided support to Ukraine on safe drinking-water supply management in emergency and conflict contexts, as well as supporting planning efforts for the recovery phase. My work focuses mostly on African, South-East Asian and European Regions. ►



CC: As a fundamental human need and basic human right, SDG 6 (*Clean Water and Sanitation*) traverses several other SDGs (for example, poverty, reduced inequalities, good health and well-being). Can you explain some of these overlaps?

RMK: SDG 6 really is central to the attainment of all SDGs because it addresses such a fundamental aspect of human well-being, that is clean water and adequate sanitation. This link is clear for goals such as SGD 3 on good health and well-being. However, SDG 6 can be indirectly linked to all SDGs. For example, unsafe drinking-water can result in increased burden of disease, which leads to children missing school or adults being unable to work and provide for their families. Situations like these ultimately affect other SDGs in turn, including those relating to education, decent work and economic development, poverty and hunger.

Similarly, women and girls are often disproportionately affected by the lack of access to water and sanitation, and closing this gap would contribute greatly to achieving SDGs centred on gender equality and reducing inequality overall. Adequate sanitation also is critical to ensure environmental protection, which contributes to SDGs 14 and 15 (*Life Below Water* and *Life on Land*). I could go on, but the point is: it's hard to see how the global community could achieve the ambitious SDG targets as a whole, if SDG 6 cannot be realised.

Many of the countries that I have visited are experiencing the worst effects of climate change, despite contributing the least to global CO₂ emissions.



Supporting effective operational monitoring at water treatment plants, Wangdue, Kingdom of Bhutan.

CC: How has your work adapted to consider emerging challenges in the last ten years, including those relating to climate change and inequalities?

RMK: Water is truly at the centre of the climate crisis. Many of the countries that I have visited are experiencing the worst effects of climate change, despite contributing the least to global CO₂ emissions. The impacts from climate change on water quality and quantity have been a significant driver for the uptake of the risk-based approaches to safe drinking-water management that WHO advocate for.

WHO have broadened our risk-management guidance in recent years to consider the growing uncertainties that water suppliers experience in facing a changing climate. Guidance today helps countries to identify all threats to safe drinking water supplies, including those arising from current and future climate impacts. One of the main tasks for us is to help identify those priority needs, so that limited resources can be used more effectively to progressively strengthen the resilience of water supplies.

People in informal settlements may have to collect, transport and store water at household level — often at higher prices. That is a very different experience to those fortunate enough to have a safe and continuous water supply direct to their home.

Given that the promise of the UN's 2030 *Agenda for Sustainable Development* is to “leave no-one behind,” a light has been shone on the disparity in access to safe drinking water. One example is the disparity between rural and urban settings. Even within urban settings, people in informal settlements may have to collect, transport and store water at household level — often at higher prices. That is a very different experience to those fortunate enough to have a safe and continuous water supply direct to their home.

Over the last number of years, these growing needs from Member States have greatly informed our work. Our goal is to ensure that the full diversity of water users — including the disadvantaged — have equitable access to more resilient, safe and affordable drinking-water supplies, meeting their domestic and health needs.

CC: Did your interest in this kind of work first emerge as a University of Galway student?

RMK: I felt lucky as a student to understand the science of water safety, knowing how fundamental it is to human life. I started to understand the microbiology underpinning the wastewater treatment process, and the consequences to public and environmental health when these processes fail, or are absent to begin with.

During this time, between visiting researchers and international conferences, I gained excellent insights and networking opportunities to better understand the importance of safe drinking-water management and adequate sanitation, with regards to public health protection. My time at Galway was instrumental in confirming where my interests lay and opening up opportunities to guide me on this career path.

Aside from climate change, on a global scale, one of the most concerning trends that I have witnessed over my career to date is the emerging role of water in conflict.

CC: What should our readers know about the future of water safety, and what role can the island of Ireland play in this future?

RMK: Aside from climate change, on a global scale, one of the most concerning trends that I have witnessed over my career to date is the emerging role of water in conflict. Water plays a crucial and multifaceted role in conflicts.

“Water is at the centre of the climate crisis.” Rory Moses McKeown



Strengthening the resilience of rural water supplies to the effects of climate change, Mekele, Ethiopia.

Factors like changing climate, economic development, population growth, urbanisation and migration put increasing pressure on regions of the world where water is already scarce. These competing demands, coupled with mismanagement, are increasing tensions and disputes both within countries, and internationally (where transboundary management issues may arise).

Water is also increasingly being weaponised in conflict contexts, where intentional or inadvertent damage to water supply infrastructure or critical power sources impacts significant numbers of the civilian population. The UN recognises access to safe, acceptable and affordable drinking-water as a fundamental human right. And these trends concern me the most. In order to resolve water-related conflicts, significant diplomatic efforts are needed to foster collaboration and agreement between the many actors involved with competing viewpoints.

I feel that as a neutral country, and given our prior standing on the UN Security Council, Ireland has strong global standing to contribute to

global stability and security, including where water is concerned. We have a platform here that should continue to be used for active engagement in international affairs, through diplomatic means and contributions to global peace efforts.

Disclaimer: The views expressed in this article reflect the interviewee's, and do not represent the views of the World Health Organization.

Rory Moses McKeown holds a PhD in microbiology from the Microbial Ecology Laboratory, School of Biological and Chemical Sciences and Ryan Institute, University of Galway, and has over 15 years' experience in drinking-water quality and public health. He currently supports global drinking-water safety activities at WHO Headquarters in Switzerland, with a focus on water safety planning for enhanced climate resilience. Prior to this, he has worked in the water industry in Australia, and as an academic in the field of environmental microbiology.

The Student Pantry: A Solution to Food Waste

Adam Mullins,
Founder, The Student Pantry,
University of Galway

Astrophysics student, Adam Mullins is the founder of The Student Pantry, a student-led solution to food waste and insecurity based in the University of Galway. When 22 year-old Adam isn't in the lab studying, he is out collecting 1000kg of wasted food items from Galway's supermarkets to provide free, healthy meals for a growing student population. Here, *Cois Coiribe* sits down with Adam to discuss the importance of removing the barriers to sustainability and food security, and his future plans for The Student Pantry.

Cois Coiribe: The **Student Pantry** is a student-led organisation that is unique to University of Galway. How did this model come about, and can you see this working in other universities?

Adam Mullins: I moved to Galway to study at University of Galway in 2019. Between college, socialising, work and the cost of groceries, I was struggling to get in healthy meals. I had worked on a similar food waste project at home in Donegal, and started to think, "If we have a lot of food waste at home, in the countryside, there must be way more in a city like Galway." So, I talked with my mum (and my role model), Bébhinn, who manages the Clonmany Community Pantry at home. We talked about the logistics of a similar project in Galway. I reached out to Food Cloud then, a social enterprise set up by two Irish women, Iseult Ward and Aoibheann O'Brien. Food Cloud link me to outlets like Tesco, Lidl and Aldi.

Through Food Cloud, I can get food for the Student Pantry that would otherwise be destined for the landfill. Every meal generated is made up of waste items. We don't charge, so students availing of the Pantry are making a choice that's both environmentally and financially sustainable. Sustainable items usually cost more. The aim of the Student Pantry is to remove the barriers to sustainability that exist in society. The Student Pantry is also massively combatting the poverty and housing crisis by reducing student living costs for students.

I see this a super easy option for other universities to pick up. It's a pipe dream for me, but the goal is to take this model to every university in Ireland, then start looking at other countries. It can be a daunting idea at first, but some other universities have already expressed an interest. I will work with as many as possible once I have the time to develop the Pantry further.

CC: When you finish studying Astrophysics maybe! What does your workday at the Student Pantry look like?

AM: Fridays, Saturdays, Sundays and Mondays are collection days, and I open the Pantry to students on Fridays. To give an example, I usually have a lecture at 9am on a Monday. At 10am, I drive to Lidl to collect food. I drop off the food to the Pantry, do some safety checks,

The aim of the Student Pantry is to remove the barriers to sustainability that exist in society. Students availing of the Pantry are making a choice that's both environmentally and financially sustainable.





then go to my 11am lecture. After that, I'll drive to Aldi and go through the same process.

A delivery day involves more work. I arrive at the Pantry at 11am, clean and set up. My delivery arrives at 12pm, and I unload the food and spend three hours setting up. I break down the larger bags of food, and recycle the packaging. We found that students were initially taking bigger bags that would only go towards a couple of meals. So, I now divide large bags into smaller baskets. This means more students are leaving with one meal's worth, rather than 20 meals' worth with half going to waste.

By the end of the month, we'll have collected 1.5 tonnes per week which will obviously have a huge impact for students. We see a minimum of 100 students per day at the Student Pantry.

The room empties out by 4:05pm. There might be a few Lunchables lying around, so I snack while working. Everyone gives out to me and offers to drop by food but I'm too busy. After clean-up, I go home and eat my first meal of the day at 5pm. I'll have been up since 8.30am without a single break. I relax at home for a couple of hours before the next set of donations. I accept these before driving around Galway once again for collection. I unload the food again at 9–10pm. Depending on the amount, I could be there from 10 minutes to two hours. Every item I receive has been written off, so safety checks are rigorous. You can't risk someone's health. Of all the food I receive, 98% is in perfect condition.

Sustainability is a core value of the university, and that demand came most strongly from students. In semester two, we plan to hire a few students to join the Pantry. One of the best things about teaming up with the Students' Union is that they don't pay minimum wage; they pay the living wage. That was a mandatory condition in my head, given all of the free time I've put into

this. Students take a lot of time out of their busy schedule to contribute, so it's important that they're properly compensated.

CC: Can you describe the scale of this project, and the impact for students?

AM: We currently get through over a tonne (1,000kg) of food every week. By the end of the month, we'll have collected 1.5 tonnes per week which will obviously have a huge impact for students. We see a minimum of 100 students per day at the Student Pantry. On some days, we see 400–500 students lining up. The more food I can get, the more I can serve. At the moment, we have a healthy influx of people who check in every week. The goal is to double the amount of food in our Monday delivery and provide food for at least another 100 students. ▶



Our impact is significant, and not only in terms of cost of living. We are trying to also incorporate health education into the project. We're partnering with local businesses to provide education on sustainable and healthy meals. I've partnered with Jess Murphy from Kai to share recipes on social media, and she's keen to do more in the future. We now have a wide reach among students; if we can give them free food and healthy recipes, we're educating students while combating food waste and poverty.

CC: How did you initially get these partners on board?

AM: Shops always have excess waste. We were lucky in the sense that Food Cloud works closely with many supermarket head offices. They have a great relationship with these businesses, and I have a great relationship with Food Cloud. So, it's a smooth process. More waste means more work for staff, and they hate to see food go to waste. So, I also generally get on well with the staff. Those relationships help when I'm rushing or late to a collection; staff are still happy to see me. Companies are also now mandated by their head offices to be more sustainable. When I first started working with Food Cloud, there weren't many shops willing to take those measures but now, every Tesco, Lidl or Aldi are obliged to donate.

CC: With the rising cost of living in Galway, are you seeing more students at your doors?

AM: There is an interesting mix of students availing of the Pantry. Some align with our morals while others might drop in for a snack; there is also a huge influx of those affected by this woeful cost of living crisis. There is no hesitation among the students to receive help while supporting a solution to food waste and insecurity.

We are trying to also incorporate health education into the project. I've partnered with Jess Murphy from Kai to share recipes on social media, and she's keen to do more in the future.

CC: What advice would you offer students looking to get more involved in their community?

AM: Just do something. If you see a problem, act on it. Speak to people who know more than you about the issue, and learn from them. I have protested and taken part in strikes, and will continue to show up in that way, but a lot of people are afraid to take the next step and act on something. The worst thing that can happen is that you fail or stumble; you're still moving in the right direction. Protesting only gets you so far. Eventually, you have to take

a stand and do something. A lot of people my age think of action in terms of social media. They might post a story on Instagram, but that's not going to achieve much.

If you feel strongly about something, all it takes to get started is a good problem-solving session. Sit down and try to understand the roots of a problem, the system that surrounds it, then look at solutions/preventions. We often think somebody else will be the person to solve a problem, but sometimes that person has to be you. I have been affected by ageism in my work at times. As a student-run initiative, the Student Pantry's impact is sometimes underestimated. But you have to take it on the chin, and use it as fuel. As long as your heart is in the right place, the worst case scenario is a lesson learned.

If you see a problem, act on it... We often think somebody else will be the person to solve a problem, but sometimes that person has to be you.

You can learn more about the Student Pantry [here](#).



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Cultural Values in a Sustainable Future

Lillis Ó Laoire,
Professor, Gaeilge (Emeritus),
University of Galway

We may not associate SDGs with culture, but the UN's 2030 Agenda acknowledges the need to safeguard the world's diverse cultural heritages, and the role of culture in fostering a collective sense of responsibility and belonging.

Award-winning writer and singer, Professor Lillis Ó Laoire asks: how can we steward our cultural heritages to protect and realign them with sustainable futures?

The development of viable goals for environmental survival and prosperity are urgent topics for everyone nowadays. In considering environment, people mostly gravitate towards issues of water and air quality and the protection of flora and fauna. To broaden the discussion, it's relevant to ask what a reflection on cultural sustainability can bring to the debate. As a human-made solution to a human-made problem, sustainability calls for a greater understanding of ourselves — our sense of belonging, cohesion and responsibility as social beings. How can we steward our cultural heritages to protect and realign them with sustainable futures?

Despite being nurtured and socialised in an Irish-speaking environment, the hard reality of 'progress' meant this heritage had to be jettisoned or abandoned in order to prosper in the real English-speaking world.

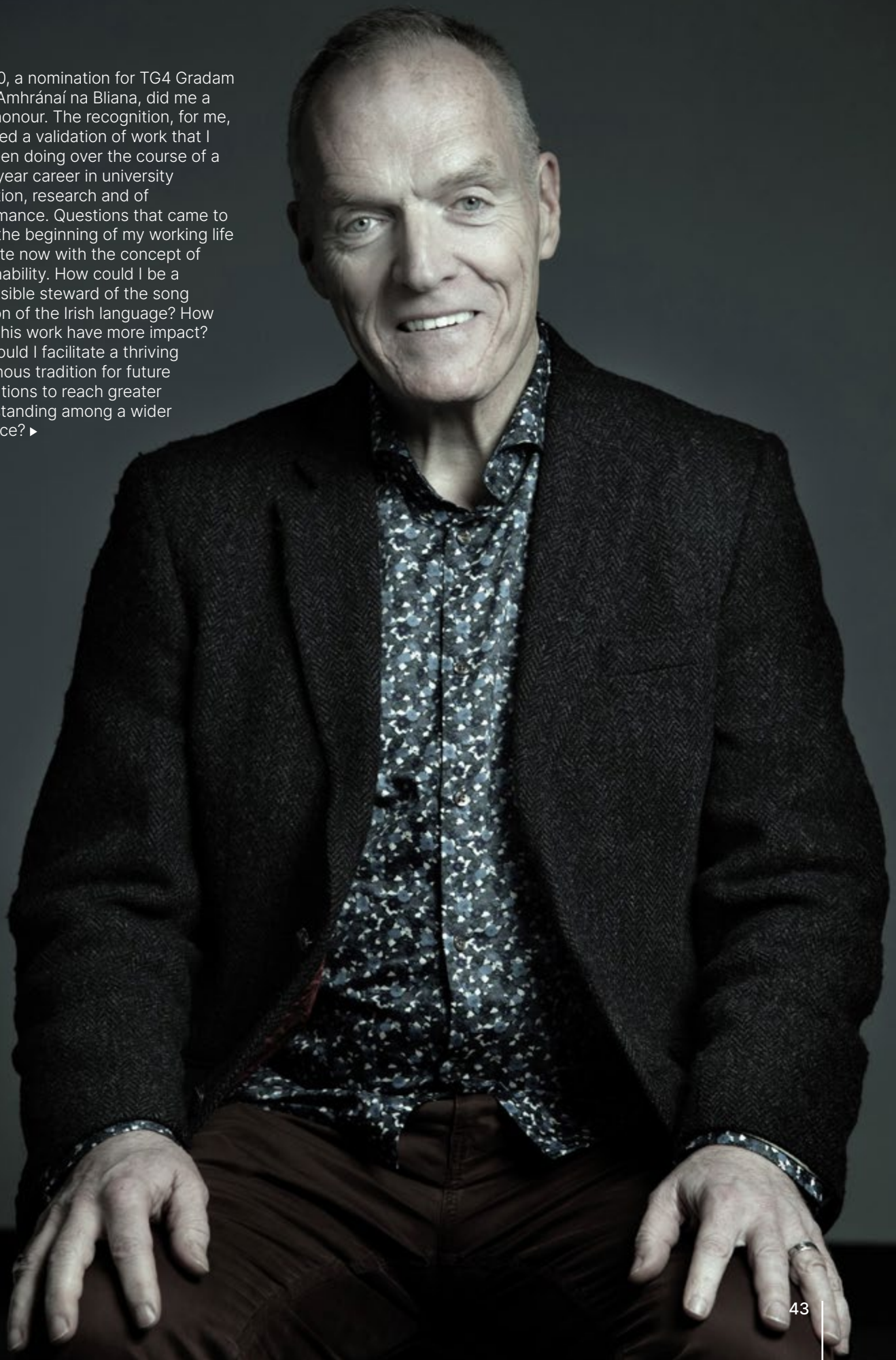


Prof Lillis Ó Laoire sings "Teacht na Féil Pádraig", Gradam Ceoil TG4 2020.



Right: Prof Liam Lillis Ó Laoire
Image: Con Kelleher

In 2020, a nomination for TG4 Gradam Ceoil, Amhránaí na Bliana, did me a great honour. The recognition, for me, delivered a validation of work that I had been doing over the course of a thirty-year career in university education, research and of performance. Questions that came to me at the beginning of my working life resonate now with the concept of sustainability. How could I be a responsible steward of the song tradition of the Irish language? How could this work have more impact? How could I facilitate a thriving indigenous tradition for future generations to reach greater understanding among a wider audience? ►





Toraigh; sometimes referred to as Tory Island, Co. Donegal. Image: Shutterstock.

Take Tory Island, the most remote inhabited island in Ireland, for example. Tory Island is an area of intense cultural interest located off the north coast of Co. Donegal. Despite being collected and archived by various individuals and agencies, the island's rich song tradition was in danger of being forgotten by a young generation striving to navigate a rapidly changing cultural and economic environment. Change meant adaptation to a present in which the past was a liability, a barrier to progress. Progress to these young people often meant getting away, succeeding abroad and assimilating to the culture of their adopted city. Despite being nurtured and socialised in an Irish-speaking environment, the hard reality of 'progress' meant this heritage had to be jettisoned or abandoned in order to prosper in the real English-speaking world.

We may not associate the SDGs with culture, but the UN's 2030 Agenda acknowledges the need to safeguard the world's cultural heritage, and the role that culture plays in promoting social cohesion, diversity, identity and wellbeing.

My first project, *Ar Chreag i Láar na Farráige: amhráin agus amhránaithe i dToraigh*, which also appeared as *On a Rock in the Middle of the Ocean: Songs and Singers in Tory Island*, addressed these issues by describing and explaining the inherent richness of this culture, that had allowed its bearers to live well in a remote and often isolated location for hundreds of years. A strategic intervention aimed at honouring older song custodians and re-awakening interest among the young, it has worked well. The project has given rise to younger generations of singers in Irish, keeping the maintenance of this culture at the forefront of island life. Although not conceived with sustainability in mind, I can see, on reflection, that sustainability as a concept

encompasses my objective. We may not associate the SDGs with culture, but the UN's 2030 Agenda acknowledges the need to safeguard the world's cultural heritages, and the role that culture plays in promoting social cohesion, diversity, identity and wellbeing. In connecting with these songs, a new generation can understand itself as part of a greater story, extending across generations. Placed in a historical context, my work has intuitively followed a thread of cultural stewardship central to the vision of University of Galway from the start, reaching back well before the Queens Colleges emerged in the second half of the last century.

A pivotal nineteenth century book on Irish song was *Irish Minstrelsy* (1831), compiled by historian James Hardiman, later Queen's College Galway's first librarian (1849-55), out of fear that Irish song was being lost and forgotten. Hardiman's work as a custodian and guardian reflects much of what the disciplines of History and Irish continue today. One of Hardiman's followers, Tomás Ó Máille, first Professor of Irish in University College Galway (1909), also showed keen interest in sustaining and developing the local performative heritage of the Irish language. Having studied in

Liverpool and Germany, his doctoral work in Old Irish, and his activism for sustaining and developing Modern oral culture likewise blazed a pioneering trail. True to his word, he established a 'great centre of Irish Learning' (Ó Madagáin 1999). His use of modern sound recording devices captured the voices of Irish speakers in areas of Connacht and Clare where the language was almost gone. Lying unheard for over ninety years, these recordings remained viable and have now been digitised.

Over 500 audio tracks are gradually being released by the Hardiman Library and can now be heard for the first time since they were recorded [here](#).¹ On the second recording on the site, you can hear the celebrated singer Máire Ní Scolaí (1909-1985), an early luminary of [National Irish Language Theatre of Ireland] An Taibhdhearc with three songs, one in Scottish Gaelic.



Album cover for Máire Ní Scolaí's Gael Linn LP.

Dr Deirdre Ní Chonghaile (Co-PI) has dedicated many hours to aiding this amazing recovery. Deirdre and I developed a travelling exhibition highlighting Prof Ó Máille's work as an innovator who instinctively understood the importance of sustainability.² Recent funding from the President's Office ensures that the project remains sustainable, supporting public lectures in each venue. *Saíocht agus Saoránacht: Tomás Ó Máille* has appeared on Campus, in the Royal Irish Academy in Dublin and throughout the West: in Corr na Móna and Mám in Co. Galway, Ceathrú Thaidhgh and Westport in Co. Mayo,

and most recently in Ennis, Co. Clare, to great acclaim. The exhibition engages local rural communities and scholarly audiences alike. On several occasions, descendants of those recorded have, proudly and poignantly, communicated their association with Ó Máille's far-seeing cultural stewardship. Such contacts help us to see how important it is for individuals and communities to see that their forebears' lives mattered, and to recognise their efforts in handing down the rich heritage of Irish to future generations.

Audiences can now appreciate that all was not toil and effort, but that music and story empowered people to rise above the drudgery and danger that characterised their existence.

Rev. Daniel J. Murphy, a Sligo native, assembled a massive collection of over 1,200 songs and other material in Irish from migrants to the coal mining districts of Pennsylvania from the 1880s to the 1920s. After Murphy's death in 1935, his manuscripts came to Professor Ó Máille at the University of Galway in 1936. Though Ó Máille himself died just eighteen months after the arrival of this historic archive, his handwritten notes on the pages show that he had begun his research to bring this incredible treasure of pre-Famine memory to the eyes and ears of the public. The goal now is to ensure that Ó Máille's replenishing vision of cultural ecology will be realised — a vision of sustainable traditional capital that holds enormous potential for renewing community and enhancing transglobal links. In commemorating this heritage, we are bringing the lives of the singers, their hardships and their struggles, vividly to life. Audiences can now appreciate that all was not toil and effort, but that music and story empowered people to rise above the drudgery and danger that characterised their existence.

The talented and enigmatic sean-nós singer, Joe Heaney was the subject of another collaborative international project that I had the privilege of leading. Assembled by the University of Washington after Heaney's death in 1984, a copy of the archive later came to the University of Galway. Together with the publication of an award-winning biography of Joe's life, co-written with Professor Sean Williams of Evergreen State College, Washington, the archive was digitised with support from the Irish Research Council. Maintained by Mícheál Mac Lochlainn of Acadamh na hOllscolaíochta Gaeilge, the archive is now a **dynamic site comprising of over 300 items**, mostly songs and Heaney's narratives about them. The local community in Carna engages in the maintenance and promotion of the archive as part of the area's renowned song tradition.

The biography *Bright Star of the West: Joe Heaney, Irish Song Man* (2011) and the archive also provided invaluable assistance for Pat Collins' **multi-award-winning** feature film *Song of Granite* (2016). [Here](#), you can listen to and see Joe Heaney sing 'Caoineadh na dTrí Muire' or 'Caoineadh na Páise,' a stirring religious song about the crucifixion of Christ, learned in his own community. The trailer for *Song of Granite* shows a Joe Heaney in his prime singing for Frederic Lieberman, an American ethnomusicology and two others in New York. The diasporic connection is important in that it reveals the links to Rev. Murphy's collection and to Ó Máille's wide-reaching vision for the sustainability of Irish oral performing arts. ►



Official US trailer for *Song of Granite*, directed by Pat Collins. Oscilloscope Laboratories.

Such initiatives resonate clearly with Hardiman's goals for fostering Irish song — preservation from loss, close study and wide dissemination. In parallel with these initiatives, cross-disciplinary [partnerships with project leader Marie Mahon in Geography, and Political Scientist Brian McGrath](#), have extended my enquiry into the sustainability of a wider range of rural arts and cultural initiatives.³

As time capsules of human relationships, identity and hard-earned perspective, songs and stories foster connection and shared knowledge across generations.

Although investment in these initiatives has been modest, we have already seen remarkable results from modest means. The maintenance of professional cultural workers with the necessary acumen and skill to realise the goals of sustainable development is crucial. Technological innovation alone will not solve the climate crisis, and many of the skills and lessons necessary for progress can be found in Ireland's past. They are ripe for repurposing to support a sustainable future. As time capsules of human relationships, identity and hard-earned perspective, songs and stories foster connection and shared knowledge across generations. This cultural enrichment is fundamental to the university's vision — an essential part of a well-rounded university experience.

Learn more about the university's Tomás Ó Máille collection [here](#). You can hear present-day singers performing material from the archives [here](#), and learn more about the archives in this [video](#) from the Heritage Council.

¹ This digitisation was enabled through funding from The Department of Tourism, Culture, Gaeltacht, Arts, Sport and Media, the Heritage Council, Roinn na Gaeilge, and Oifig an Mheabhránaí, together with a generous donation from his youngest son, Dr. Éamonn Ó Máille, who was only two years old when his father died in 1938.

² With funding from the University 2020 fund, Oifig an Uachtaráin and Foras na Gaeilge.

³ Mahon, Marie & McGrath, Brian & Ó Laoire, Lillis. (2018). "[The transformative potential of the arts and culture in sustaining rural futures.](#)" *Journal of Rural Studies*. 63. 214-216.



The great sean-nós singers Níoclás Tóibín and Joe Heaney (Seosamh Ó hÉanaí) in conversation. Credit: Kim Clancy, used by kind permission.

References

Breandán Ó Madagáin. 1999. "Irish: a Difficult Birth." *In From Queen's College to National University*. Ed. T. Foley. Dublin: Four Courts, 1999, 359.

Pól Ó Muirí. "[Songs coming in from the sea.](#)" *The Irish Times*. 17 September, 2002.

Catherine Foley. "[The songs that bind.](#)" *The Irish Times*. 16 June, 2007.

Éanna Ó Caollaí. "[An Máilleach: nasc leis an am atá thart.](#)" *The Irish Times*. 3 October, 2022.

Michael Malone. "[Early recordings of the West to be showcased for first time since 1930.](#)" *Galway Daily*. 30 March, 2022.

Donald Clarke. "[Song of Granite review: An intoxicatingly odd ode to Joe Heaney.](#)" *The Irish Times*. 30 November, 2017.

Philip Concannon. "[Pat Collins: 'Song of Granite is as much about humanity as it is about Irish identity.'](#)" *Sight & Sound*, BFI. 11 December, 2017.

"[Tomás Ó Máille An Taibhdhearc.](#)" *Raidió na Gaeltachta Programme* (May 2022).

"[University exhibition celebrates legacy of Professor Tomás Ó Máille.](#)" University of Galway. 30 September, 2022.

"[An Gaodhal, the first Irish-language newspaper ever published.](#)" Digital Collections: University of Galway.

"[An Stoc](#), founded in 1917, edited by Tomás Ó Máille. Digital Collections: University of Galway.

"Culture and Citizenship — Prof Tomás Ó Máille (1880–1938)." Royal Irish Academy. 21 April, 2023.

Professor Lillis Ó Laoire lectured and taught Irish Folklore, Literature and Celtic Civilisation at the University of Galway from 2007–2023. Previously, he lectured at the University of Limerick.

An award-winning writer and singer, he published works on the singing of Tory Island, on the life of Seosamh Ó hÉanaí, with Sean Williams, and an edited collection of essays on sean-nós song today with Tiber Falzett and Philip Fogarty. He won the highest accolade in sean-nós singing, Corn Sheáin Uí Riada in 1991 and 1994, was the recipient of awards by Éigse and Spidéil (2009) and Sean-nós Cois Life (2011) and in 2020 was nominated as TG4 Amhránaí na Bliana.

Although retired since September 2023, he continues to research and perform. A volume of essays, co-edited with Moyra Haslett and Conor Caldwell, titled, *The Oxford Handbook of Irish Song*, will appear from OUP in 2024.

Imagine a Future Sustainable City Galway and D

Prof Padraic Kenna,
Professor of Law,
University of Galway

We like to mix the global and the local in Galway. We talk a lot about climate, justice, land and housing, which is why the Sustainable Development Goals mean so much to us. Our greatest task now is to envisage the carbon-free, sustainable and inclusive communities of the future. **'THE LINE'** offers a glimpse into what these could look like.

The Weather

At all times of the year in Galway, the weather is a great conversation opener, as alumni will remember. Perfect strangers can express strong views. It always ends in agreement — it could be better. The climate, and how it impacts on our enjoyment of life, is ever-present. And we want to keep on enjoying this into the future here — we love the idea of sustainability. Indeed, sustainability has been one of the core values of the **University Strategic Plan** since 2020. **Our Climate Action and Sustainability Strategy**, commits us to providing “leadership to inform the transition to a sustainable future,” and we aim for carbon neutrality by 2030.

Here in Galway, we support the **UN Sustainable Development Goals (SDGs)** — a plan of action for people, planet and prosperity, signed by 193 countries in 2015. The SDGs propose a range of national targets for 2030, in health, education, gender equality, clean water, affordable and clean energy, industry and infrastructure, climate action and peace, with a commitment to **“leave no-one behind.”** The key message is that the SDGs are for everyone in society, and everyone can make a contribution to their success.

The University has signed up to the **SDG Accord** promising to inspire, celebrate and advance education in delivering these goals, through education, research, leadership and engagement activities. Indeed, we are the only Irish third level body to be awarded **“SDG Champion”** status for 2023/24. In the wider university network, students, academics, staff and alumni all pitch in to achieve the 17 SDG Goals. ▶

Some claim that land (and its modern equivalent, housing) ownership is in our rural DNA. Indeed some, but not all, trace this to the impact on our collective psyche of Famine era evictions.



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Drowned Galway, conceived and directed by Ríonach Ní Néill, photomontages by Joe Lee.

Climate, Land and Housing

Climate change is the most urgent issue of our time, with the potential to negate all sustainability actions. As a coastal city, we are prone to rising sea levels and flooding. Projections of Galway City under water, guided by predictions as soon as 2030, have been created.

Land is important in Galway. Some claim that land (and its modern equivalent, housing) ownership is in our rural DNA. Indeed some, but not all, trace this to the impact on our collective psyche of Famine era evictions. Today, in the context of climate change, new terms are becoming part of our conversations, such as managed retreat, displacement, climate gentrification and active land management — all now becoming political issues too. For example, “green grabbing” — or foreign appropriation of land for biofuel production, carbon emission trading, ecotourism or conservation of biodiversity — results in a pattern of unjust development.

SDG Goal 15 (*Life on Land*) asks us to commit to the protection, restoration and promotion of sustainable use of land and forests, while halting biodiversity loss. Ireland has now also committed to providing universal access to safe, inclusive, accessible and green public spaces, in particular for women and children, older persons and persons with disabilities.

We have accepted the SDG target of ensuring access for all to adequate, safe and affordable housing and basic services, by 2030. The key word here is affordable, generally defined as requiring no more than 30% of net income to be spent on housing costs.

Of course, now in 2023, the word “crisis” is so pervasive so as to almost lose its meaning — there seems to be a crisis everywhere. Such fatalism is debilitating.

Housing is a hot topic in Galway, as a growing “Univercity” with high rents, some squalid offerings for students and many homeless families living in emergency accommodation. But housing is also a major part of the climate change debate. Housing carries a major ecological and carbon footprint, between construction (use of concrete), urban sprawl, soil sealing, energy consumption, water use, pollutants and loss of biodiversity. Indeed, use and construction of buildings account for **37% of energy related carbon dioxide emissions globally**. The International Energy Agency expects that **650 million air conditioners will be added by 2030 and another two billion by 2050**.

SDG Goal 11 commits us to making our cities and human settlements inclusive, safe, resilient and sustainable. We have accepted the SDG target of ensuring access for all to adequate, safe and affordable housing and basic services, by 2030. The key word here is affordable, generally defined as requiring no more than 30% of net income to be spent on housing costs. Under the European Green Deal, we have committed to upgrading the Energy Performance of our housing to Grade E by 2030, with housing legally offered for sale or rent requiring such certification. So, we know what we have to do, but knowing and doing are not the same.



3D render of THE LINE, Saudi Arabia, courtesy of NEOM.

The Future

Some apocalyptic narratives, such as *The Collapse of Western Civilization: A View from the Future* by “future historians” Naomi Oreskes and Erik M. Conway, set in 2093, looks back to a world where climate change has utterly reshaped life on Earth.

Of course, now in 2023, the word “crisis” is so pervasive so as to almost lose its meaning — there seems to be a crisis everywhere. Such fatalism is debilitating. We must move beyond climate anxiety which undermines any effective actions, and it is important to recognise that there are many hopeful developments.



While few States have undertaken such monumental policy development on integrating the SDGs as China, which plans to create a “**Beautiful China**” by 2050, Colin Murphy points out that more than half the world’s publicly listed companies now have “net zero” targets.¹ So do the long list of countries covering 90% of the world’s emissions, GDP and population. It is not inevitable that the Earth will become uninhabitable.

Ireland’s public service played a key role in developing the SDGs. Ireland and Qatar were co-facilitators of negotiations on the political declaration of the **SDG Summit** in September 2023.

Of course, as with all great plans and goals — support for and the effectiveness of the SDGs will come down to their impact on peoples’ lived experience. Indeed, the **376-page Irish Report** in June 2023 sets out Ireland’s whole-of-government and political approach, where every government department is involved, and consultation with “stakeholders” is extensive — including a specific youth consultation process. The Report reframes most Irish State policies in terms of the SDG goals. The principle of “leaving no-one behind” forms a significant part of the Irish State report, based on a consultation Forum addressing various issues (education,

employment, social protection, health, community engagement and inclusion, housing, climate action and the circular economy). The Forum also focussed on people’s lived experience of what it meant to be left behind. ▶

¹ **“Colin Murphy: ‘Amid all the bad news, there’s fresh hope we can reverse climate change. Now there are tentative signs we can still reduce global warming and prevent Armageddon.’”**
Colin Murphy. *Sunday Independent*, 22 October 2023.



3D render of THE LINE, Saudi Arabia, courtesy of NEOM.



The LINE

Hope is one human value which keeps us going — and it is in real demand when we talk about climate change and sustainable development goals. But hope is not enough; we must envision new models of society which are carbon-free, inclusive, liveable and enjoyable — new models which enable everyone to achieve their full potential.

The path towards sustainability calls for a blend of small, tangible steps and big picture thinking. We need to be able to see what a sustainable city of the future could look like. One example happening now is **THE LINE** — a futuristic planned city with one million residents by 2030. THE LINE will make up a 170-kilometer-long belt (about the distance between Galway and Dublin) of hyper-connected, sustainable communities, powered by 100% renewable energy resources, with all services and amenities accessible within a five-minute walk. Residential areas, leisure and entertainment zones, business districts and research facilities will all be integrated.

The city's infrastructure will prioritise sustainability and environmental conservation, with extensive green spaces, designed to minimise environmental impact and maximise sustainability practices. THE LINE will integrate advanced technologies like artificial intelligence, robotics and the Internet of Things to enhance the quality of life for its residents. Free of roads and cars, an ultra-high-speed transit will be provided through autonomous vehicles.

Of course, this particular project will only be available to wealthy people, and will disrupt some eco-systems. Nevertheless, the model has sparked productive discussion as a futuristic vision of a sustainable city that leverages technological advancements to create a high-quality living environment. We can adapt it into a socially inclusive model through our political engagement.

Could we now imagine such a future sustainable city on the 170kms between Galway and Dublin? Of course, we would need a few gaps for cows, snails and others to cross, but remember, the travel time from end to end would be 20 minutes — now there's a thought.



Professor Padraic Kenna lectures in land law, housing law and policy and housing rights, at University of Galway, having published some six books and 50+ journal articles on these topics. As Director of the Centre for Housing Law, Rights and Policy, he leads housing law, rights and policy research at national and European level. Recent publications include Integrating EU Charter Housing Rights into EU Economic Governance and Financial Supervision.

Smart Sustainability at the World's Largest Sports Air Dome

Connacht GAA's John Prenty, CEO; Kurt Reinhardt, Facilities Manager and Cathal Cregg, Provincial Coaching & Games Manager

As 2023 SGD Champion, the University of Galway Connacht GAA Air Dome is a beacon of sustainable innovation for Ireland. In this SDG Champion Edition, *Cois Coiribe* asks the team about its partnership with University of Galway, its dynamic Green Clubs programme and the complexities of managing the world's largest sports air dome — a versatile indoor facility, accessible to clubs and visitors throughout the region and beyond.

Cois Coiribe: We're here today in the world's largest sports air dome. How does this structure operate?

Kurt Reinhardt: The dome is a structure made of canvas that stretches upwards from a knee-height concrete base. We control the air flow through negative pressure, using various blowers placed around the perimeter of the dome. If there is 900 Pa (unit of pressure) outside the dome, there will be 300 Pa inside.

If we were to build a structure of this size using standard building practices, we would be looking at upwards of €30 million but we delivered this dome at €3.1 million. From a sustainability point of view, we manage the dome's energy in different ways, primarily through 1000 solar panels installed onsite. We also control the air pressure in an economical way, depending on weather conditions. The dome is a *smart* structure with 4000+ IP addresses; your laptop for example, only has one IP address. So, every light bulb and sensor brings our attention to different environmental challenges. We have our own weather station that also helps us make decisions around energy.

We have been thinking about renewable energy for a long time now. In 2011, when we built the main building, we installed a 72,000-litre rainwater harvesting tank. That rainwater is now used

throughout our lavatories. We upgraded our sensors to help conserve water in 2019, allowing us to run the overall toilet system on the one tank.

Cois Coiribe: Is it fair to say that Connacht GAA is leading in sustainability since the development of this new structure?

KR: Given that it's the world's largest sports air dome, it is a leader in its own right. We have 210 clubs in Connacht, and they come here for advice, whether that's coaching, administration or now, renewable energy. Our site is unusual as an 85-acre site with programmes in sustainable energy, transport, waste management and biodiversity. We plan to ban single-use plastic by 2024. We have bee hives and bug hotels, two kilometres of natural walkway and 13,000 native trees planted. What I'm saying is: it's not all about the big ticket items.

Our entire 85-achre site here is powered by data... For phase two, we will install three 30-kilowatt wind turbines. The dome and flood lights are all backed up with hydrogenated vegetable oil.





University of Galway Connacht GAA Air Dome. Image by Meadhbh McNutt.

Small steps make a difference. For example, we recently banned black rubbish bags, so that we can see what's in the waste. This helps us understand how best to drive policy and change behaviours amongst our staff and visitors.

We have seen a fourfold increase in footfall, and human behaviour affects resource management. We are supported here by people employed in the back-to-work scheme, and we work hard to place them in recognised positions in the centre. That respect makes for happier people and better outputs. We also think about all aspects of waste, from plastic bottles to ammonia levels in sewage. There is nothing more sobering than the air dome energy bill. Part of our community outreach is helping people understand their ESB bill, and possible savings. Our entire 85-acre site here is powered by data. When I arrive in the morning, the platform will tell me the weight and number of rubbish bins on site. A light-weight bag of rubbish suggests that we're not segregating the waste enough. That data then drives practical policy and change. In the last 12 months, we've gone from recycling 26% to 54% of our waste. That's huge considering the jump in visitors from 40,000 to 182,000.

We have created a 10-year master plan with our sustainable energy community here in Connacht. That plan has a value of €2.8 million. Translated back into our games, that will allow us to continue free access to all our education bodies. For example, none of the children training here pay to use the facilities, but a revenue stream is needed to continue this. Our sponsors and profit centres see the value of the coffee shop and the medical centre, and their significance to the accessible GAA culture.

For phase two, we will install three 30-kilowatt wind turbines. The dome and flood lights are all backed up with hydrogenated vegetable oil. We

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are not entirely carbon-neutral because visitor transport complicates that formula, but we are carbon-neutral in all other activities. Since automating our pitch markings with a solar-powered robot, the staff who used to do those jobs are now deployed to our waste programme.

Our social programmes around exercising and planting trees are also sometimes underestimated. Something Connacht GAA has done well is team sandwiches and believe me, that is fundamental to the social fabric of the region. You are able to measure the trees planted, but you can't measure the smiles — that can't be quantified.

John Prenty: The dome was a catalyst for sustainable change in all of those other areas. Without the dome, we probably wouldn't have been so quick to act on biodiversity, for example. This site is now a model to show other counties what is possible.

KR: We are a centrepiece for the national Green Clubs programme, and that emerged from the MOU signed between the government and the GAA. The 'SDG Champion' designation from the UN has also been a driver of change. ▶

Cois Coiribe: How has the dome benefited players and the local community?

Cathal Cregg (hereafter CC): We don't have the best weather in the West of Ireland, and we used to struggle to get pitches for games due to the rain. Over the last couple of months, we've seen clubs from other counties use our indoor space. A high volume of secondary school games are also played here throughout the year. So, there is now a large cohort of players enjoying world-class facilities that may otherwise have been left without a venue.

Another factor is coach education. Prior to the dome, the weather wouldn't allow for practical sessions throughout winter, during the coaches' downtime. We had a national coaching conference here 18 months ago and we have two more coming up, with have a few hundred in attendance. We have our national academy days in the summer, with county teams playing blitzes against each other. We also hosted both GAA Féile here, and a range of competitions over the years including the Sigerson Cup and the Ashbourne Cup. So, players from all over Ireland have benefited.

The last piece is our sports science area where Daniel Ford, our Strength & Conditioning Officer, oversees fitness testing and programme design for players at all levels, particularly academy squad players and adult club players. Our fee is very inexpensive compared to other providers.

Around 60% of our numbers here are made up of Ladies' Gaelic Football and Camogie players.

Cois Coiribe: Young girls start playing Gaelic Football at an early age but their interest tends to drop off in their teen years. Can facilities like these help girls stay active in sports?

CC: Of course. For both girls and boys, these facilities can give players an overall positive

experience of the GAA. While we don't directly facilitate the (LGFA) Ladies' Gaelic Football Association at the moment, we're hoping that this will happen in the near future. We have lots of LGFA and Camogie activity.

KR: Around 60% of our numbers here are made up of LGFA and Camogie players. For example, we're hosting the Connacht Camogie finals here this weekend.

CC: A large bulk of our coaching also goes toward primary schools, benefiting players across genders. One of our flagship projects is Cúl Camps — 200+ camps for boys and girls throughout the province every summer. There is a near-50:50 split there. We're very passionate about promoting the games to all players, and the sooner we have equal opportunity, the better.

We've had 182,000 visitors in the last 12 months. Players and visitors come from across the country to experience the world's largest sports air dome; it's a unique experience.

Cois Coiribe: Do you anticipate a continued increase in visitors?

JP: We built the dome mainly to cater for school games and coaching, but now we have visitors from across the country. We have kids coming from all different regions and backgrounds, with different abilities. We recently hosted 110 U10 kids from Portumna; we put on the music from the Sunday game, and they came running in through the tunnel.

KR: We've had 182,000 visitors in the last 12 months. Players and visitors come to experience the world's largest sports air dome; it's a unique experience. It's very fulfilling for them, and for us. One of the most fulfilling things for us is to sit on the side lines and watch those nurseries come in. We recently had three events that brought in 12,000 children to use the facilities.

CC: The dome is located right in the centre of Connacht, so accessibility is key. We're seeing players visit from Dublin because it's a drivable distance. We've also had successful events here including University of Galway events.

Cois Coiribe: Tell us about your partnership with University of Galway, and what this means for both the university and GAA communities.

JP: From day one, we wanted to partner with an educational institution and the biggest one in the province is University of Galway. There are 700+ students in the university playing GAA this year, and the air dome is available for all university clubs. School children from across the province come here to play GAA and the first thing they see when they enter is a University of Galway banner at the far end of the pitch. That's bound to create an impression for aspiring players.

The partnership is also important for coaching education and research links, not to mention keeping the door open and the lights on. The air dome is for the Connacht region. It's not a Mayo thing, it's ultimately a national thing because it's the only dome of its size in Ireland. We're a leader in our field and we intend to lead into the future.

Cois Coiribe: Connacht GAA were designated as one of Ireland's SDG champions this year. What are some of the key sustainable changes that supported this award?

KR: The government initially engaged Croke Park with a view to bring forward climate action, signing an MOU (a memorandum of understanding). In Connacht, a lot of our programmes were already underway. As the GAA moved into this space, they leveraged our progress across the programmes. That gave us a structure to follow in putting together the Green Clubs programme with the Health and Wellbeing department, allowing us to create an online toolkit for all clubs. In the next phase of the programme, we ran pilots here in partnership with the local authorities, the SEAI (Sustainable Energy Authority of Ireland) and the



John Prenty, Kurt Reinhardt and Cathal Cregg in the air dome.

University of Galway Connacht GAA Air Dome. Image by Meadhbh McNutt.

It's not a Mayo thing, it's ultimately a national thing because it's the only dome of its size in Ireland. We're a leader our field and we intend to lead into the future.

All-Ireland Pollinator Plan. We now have sustainable energy community models rolled out at County Board level.

The GAA has something that no other sport has; it has a network of over 2,000 clubs that are essentially the hub of nearly every community in Ireland. So, we have something special in that sense. Barcelona Football Club has visited with their facilities team as part of an Erasmus programme. We have also worked with FA Wales and FC Porto in various sustainability programmes.

The GAA is an 100-year-old structure, made up of community, clubs, county boards, provincial councils and Croke Park. That structure allowed us to test these models and make adjustments where needed. For example, over

77% of Mayo clubs now engage with Green Clubs. Similar models are now underway in Galway, Sligo, Cavan, Waterford and Wexford. The big ticket items aren't for everyone, but there are also other programmes in waste management and biodiversity that are applicable to all. Those small steps help build momentum.

We're at a pivotal point now where 200+ clubs nationally signed up to Green Clubs. The programmes position Connacht as a leader to inspire people to do the right thing. Everyone gets down and out about climate change, but they can come here and see climate action. When you support Connacht GAA, you're supporting more than the air dome. You're supporting every county and every club around the province.

JP: We also have a physio centre where elderly people can do exercises. We're in negotiations to get an MRI scanner, a DEXA scanner and an X-ray machine. That's not for the GAA; that's for the community. Everyone who invests in this place can see the value of that support.

School children across the province come here to play GAA and the first thing they see when they enter the dome is a University of Galway banner at the far end of the pitch. That's bound to create an impression for aspiring players.

Learn more about the University of Galway Connacht GAA Air Dome [here](#).

Críochoa an Ch An Artist's Ret the Heartland

Christina McBride in Conversation

A residency in the University of Galway's Gaoth Dobhair Centre in 2022–23 allowed Glasgow visual artist **Christina McBride** to explore the natural and built environment of her mother's homeplace in nearby Bun an Inbhir in a series of analogue photographs developed using local fauna and peatland materials.

McBride's residency in Donegal and the resulting exhibition, *Críochoa an Chroí / Heartland*—was made possible by a partnership involving the University, Údarás na Gaeltachta, Ealaín na Gaeltachta and the Regional Cultural Centre in Letterkenny. In autumn 2023, a second exhibition, *Thall Udaí / Over By*, focusing on the people of the place, was mounted in Sean-Scoil Bhun an Inbhir and a third is planned for Glasgow in 2024.

A daughter of immigrants, Christina McBride was reared in the Gorbals and Toryglen in Scotland. In the 1950s, her mother, Neilí an Dálaigh, of Bun an Inbhir, Gaoth Dobhair, had emigrated from Donegal to Glasgow, where she met and married Barney McBride, a native of Dunfanaghy.

"My interest in the natural landscape can be traced back to my early formative years, moving between the tenements of the densely packed Gorbals in Glasgow, to the open expanse of the wild and windblown Atlantic coastline at my grandparents' home at Bun an Inbhir, Gaoth Dobhair, Co. Donegal," says Christina.

Produce from both land and sea has been essential to the survival of the Donegal community, so I knew I wanted to use these materials to create works that acknowledge that resilience.



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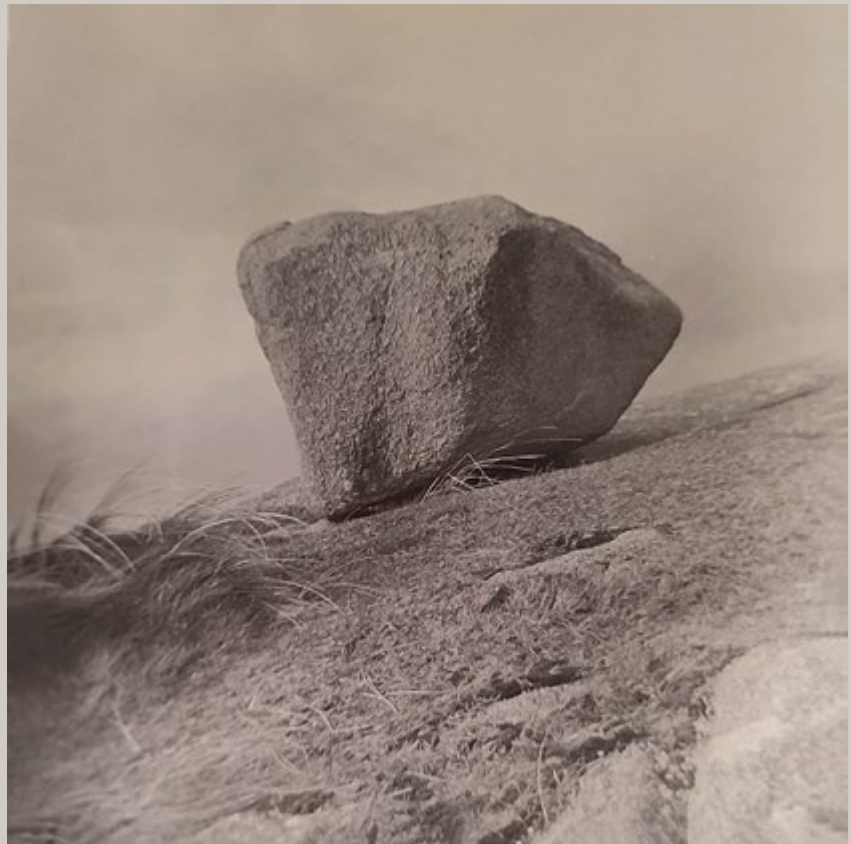


Críocha an Chroí, exhibition by Christina McBride, An Gailearaí, Gaoth Dobhair. Image courtesy of the artist.

“My practice is embedded in the medium and processes of analogue film—its responsiveness to light and time. In recent years, I have worked with alternative printing processes, expanding the use and understanding of more environmentally conscious materials. Like my mother’s family, I use and carry something of my past. Produce from both land and sea has been essential to the survival of the Donegal community, so I knew I wanted to use these materials to create works that acknowledge that resilience.”

“During my residency, I explored the plants and fauna which survive in peatland conditions to create natural and sustainable photographic developers, including some of the native and invasive species. I also tested the properties of the seaweeds such as sloak, dulse and carrageen moss. Larger images were printed onto re-cycled paper which, over time, will simply return to the land.”

Christina’s residency had two independent yet connected areas of focus — firstly, a new body of lens-based works responding to the specific landscape of Gaoth Dobhair, and secondly, a photographic archive focusing on issues of migration, particularly in the Glasgow/Donagal ▶



Críocha an Chroí – Heartland, analogue image printed with wild ferns 50 × 50cm. Image courtesy of the artist.



An Mhucais, analogue image installed in artist's studio. Image courtesy of the artist.

diaspora. This work culminated firstly in a solo exhibition in An Gailearaí, Gaoth Dobhair in July 2023, followed by an exhibition of works selected from the archive at the old Bun an Inbhir national school. Christina plans to continue her work in Glasgow with more exhibitions to follow.

I am part of a generation of Irish immigrant families who have spent a lifetime oscillating between a home in Glasgow and a home in Donegal. It was our generation who would arrive with instamatic cameras, photographing a landscape and way of life which contrasted starkly with dark tenement life in the city.

"I am part of a generation of Irish immigrant families who have spent a lifetime oscillating between a home in Glasgow and a home in Donegal. It was our generation who would arrive with instamatic cameras, photographing a landscape and way of life which contrasted starkly with dark tenement life in the city. The photographs in *Críocha an Chroí / Heartland* visualise and validate an important narrative, but they exist in a very dispersed and undocumented form in homes across Glasgow and Donegal. The purpose of the archive is to collate and digitise these images and to make them available for current and future generations."

Christina McBride lives and works in Glasgow, Scotland. After completing a degree in Fine Art Photography at the Glasgow School of Art, McBride undertook a Masters at the Slade School of Art, London. Her practice has included outdoor public art works, installations and is now rooted in lens-based enquiry through photography and film. She has exhibited both nationally and internationally and undertaken residencies in Japan, Canada and the USA. She has had solo exhibitions in New York and Mexico City. McBride also teaches part-time on the Master of Fine Art and Fine Art Photography programmes at the Glasgow School of Art.



Christina McBride prepares anthotypes (an image created using photosensitive material from plants). Image courtesy of the artist.

“Ragged Desolation of Men and Things”?

In an essay published in July 2023 in the catalogue for Christina McBride’s *Críocha an Chroí / Heartland* exhibition in An Gailearaí, Gaoth Dobhair, historians **Breandán Mac Suibhne** of the University of Galway and **Laura Kelly** and **Niall Whelehan** of the University of Strathclyde respond to her images of the rock-strewn landscape of north-west Donegal.

In July 1752 Richard Pococke, a forty-eight-year-old Englishman soon to become bishop of Ossory, travelled through north-west Ulster when on a more extensive tour of Ireland. Generally stopping with Church of Ireland landowners and clergymen, he rode from the core of the region through its northern and western periphery, that is, from the port-city of Derry through the plantation towns and rolling countryside of the Laggan, looping around the peninsula of Inishowen, before striking across the mountains, bogs and coastal plains of north and west Donegal.

Among those with whom he stopped were the Stewarts of Horn Head (18–19 July), the Wrays of Ards (20 July), and the Olpherts of Ballyconnell (21 July). Further west, there were neither gentlemen nor clergy: he spent the night of 22 July in the “cabin” of an anonymous Gaoth Dobhair “farmer” who wryly

informed the English minister—who had insultingly refused to share his host’s food—that he was “the first that ever eat of his own provision in his house.” And from that humble abode he pressed south through Na Rossa, the Rosses.

Pococke was no ordinary traveller. He had spent five years touring the Middle East in the late 1730s and early 1740s, and his three volume *A Description of the East and Some Other Countries* (1743–45) was a foundational text in the production of European images of the “orient”. A diary he kept as he travelled through Ireland in 1752—not published until the late nineteenth century—is of a lower literary order, being little more than jottings on the “romantic” landscape and things that catch his eye; there is hardly any extended historical or political commentary such as appears in *A Description of the East*. But details accumulate in those jottings and ▶

his diary is a valuable account of life in the north-western corner of Ireland in a period from which there are few. And it is a fine example too of how outsiders have often framed the west of Ireland as strange and “uncivilised”.

As he continued north-west, people became poorer: Tully consisted of ‘a few poor scattered houses’; Kilmacrenan was a ‘very poor village’ and Dunfanaghy ‘a very poor small town’. And the landscape, if still romantic, became evermore strange.

For Pococke, the district between Derry and Letterkenny was impressive because it was, to him, like England. The city was “like Guilford”, on a height above a river, and its “handsome parish church”—in fact, St Columb’s is a cathedral—was “something like many churches in large country towns in England”. Likewise, the view over the Swilly as he approached Letterkenny reminded him of the Aire in Yorkshire. It was “a well improved hilly country”; “an exceeding fine country”; it had towns and “large” villages—some of which, like Manorcunningham and Newtowncunningham, had names requiring no glosses—and roads and charter schools, “handsome” houses and land under corn.

But Letterkenny, the gateway between the core and its western periphery, he thought “more beautiful in prospect than when one enters it”. The town had “one street meanly built, with gardens behind the houses and the remains of an old square castle; “the chief trade ... consists of shops to furnish the country to the north, and a market for oats and barley, wheat, some yarn and flax.” As he continued north-west, people became poorer: Tully consisted of “a few poor scattered houses”; Kilmacrenan was a “very poor village” and Dunfanaghy “a very poor small town”. And the landscape, if still romantic, became evermore

strange. There were mountains and bogs to be crossed and rivers to be forded; he was “extremely surprised” when, from a height, he saw “spots of corn”. The mode of living was different too. Just a few miles west of Letterkenny, he remarked on strange houses built of sods supported by a wooden frame: “the poor people sometime leave with their effects when the hearth money [payment-date] approaches.” The pockets of “civilisation”—marked by clusters of trees and Protestants—around gentlemen’s seats at Cranford, Ards, Horn Head and Ballyconnell only accentuated the “wildness” of their surroundings.

Ultimately, Pococke finds himself going beyond “civilisation”. On leaving the Olpherts of Ballyconnell—a “large eagle” terrified fowl in the yard as he was bidding farewell—he had to hire two men as guides as “there are no more gentlemen to the west nor to the south for near thirty miles, till one comes to Inniskeel”. Later that day, after crossing several bogs “with difficulty”, he sat down by a river to dine, near Bun an Leaca, south of Cnoc Fola:

Some poor came about me and I bless God Almighty that I had [something] to feed them! The Irish Grace was said.
*Raghnakoude nrahan, agles da jesk ring Dieu erna Koub Mille; diring Dieu rockown re dering ren en ring er argoud, agus er argoron.*¹ In English thus, God blessed the five loaves and the two fishes and divided them among the five thousand; may the blessing of the Great King who made this distribution descend on us and on our provision.

If the Gaoth Dobhair woman lifting her gown is not the sexually promiscuous Egyptian of Orientalist fantasy, Pococke’s diary—its observations, occlusions and imaginings—is now detailing an excursion into the exotic.

Perhaps Pococke’s most striking description of a “native” is of a woman encountered later that day:

I saw a woman carrying one [a curragh] to a Lough and two children following her, she paddled it along at the head, sometimes on one side, sometimes on the other, and when a puff of wind came she held up her gown for a sail. He cried out to her *Bra haskin* (well-done) and she answered *Maugliore* (well enough).

If the Gaoth Dobhair woman lifting her gown is not the sexually promiscuous Egyptian of Orientalist fantasy, Pococke’s diary—its observations, occlusions and imaginings—is now detailing an excursion into the exotic. Travelling along the coast, he reached the Rosses, a place which he, who had seen the Sahara, thought the “most desolate and ... uninhabited part in the world”; and that remark reveals how he was framing what lay before him, for he subsequently notes a yearly cattle fair suggesting the place was not all that “desolate”.

But by then, not only has Pococke’s way of looking become similar to that of *A Description*, so too had his subject. In discussing whiskey in Cloich Cheann Fhaola, he had taken a philological detour, comparing the Irish use of the word “Usquebaugh” [*uisce beatha*] to Arabs’ use of the word *Arrack*. In Gaoth Dobhair, he had gone on a similar tangent, comparing the “corhougan” [*corr-shúgáin*], for making ropes, with an Egyptian hieroglyphic. And now in the Rosses not only is *ros* [headland] “probably an old word derived from the Arabic *Ross*, a head or cape of land” but the very rocks of its sodden mountains and bogs are “of the same red granite as that of Egypt, of which the Obelisks are made.”

Derry had put Pococke in mind of Guildford and the Swilly of a river in Yorkshire; surveying the Rosses, he saw the Middle East.

Over quarter of a millennium has passed since Richard Pococke passed through north and west Donegal. And in that time many other visitors have seen its

landscape as strange. The “crag and heather desolation” of Gaoth Dobhair appalled the Scottish writer Thomas Carlyle who visited in 1849. Its people he thought the “wretchedest ‘farmers’ the sun now looks upon”: “Black huts, bewildered ricket fences of crag; crag and heath; unsubduable by this population, damp peat, black heather, grey stones and ragged desolation of men and things.”

Discerning a great many houses dotted between “crag and heath”, visitors also often remarked with wonder that north-west Donegal could support a large population; and they did so of nowhere more than of Gaoth Dobhair, and of there of no place more than the stone-walled fields that stretch south from Cnoc Fola through Bun an Leaca and An Ghlaisigh.

Here, as elsewhere in Ireland, a shift from an oatmeal- to a potato-based diet—a change beginning to take hold around the time of Pococke’s visit—had allowed more people to subsist on less land and land of lesser quality: the country’s population doubled from about 2.5 million around 1750 to 5 million at the century’s end, and it would continue to increase, to about 8.5 million when the blight came in 1845.

There is the puzzle, then, that in Gaoth Dobhair—and most especially around Cnoc Fola, the area with the lowest valuation of agricultural land per capita in the west of Ireland—the population not only did not fall during the Famine but continued to grow...

Yet in north and west Donegal other factors drove population growth, not least of which, from the late eighteenth century, was seasonal migration to east Donegal, Derry and Tyrone to labour on large farms and to Scotland to work on farms, roads and construction projects. There is the puzzle, then, that in

Gaoth Dobhair—and most especially around Cnoc Fola, the area with the lowest valuation of agricultural land per capita in the west of Ireland—the population not only did not fall during the Famine but continued to grow through the nineteenth century and into the twentieth. And there is an explanation: people came home every autumn with Scottish pounds.

For sure, some people from north-west Donegal settled in Scotland, integrating into the Irish communities that grew around the mines and factories of the Lowlands. But in Gaoth Dobhair, Cloich Cheann Ghaola and Na Rossa, seasonal migration to the large farms of the Borders proved remarkably enduring, only tapering off in the decades after the Second World War, its end ordained by the mechanisation of agriculture and the opportunities, for men and women, in and around industrial Glasgow, when, in the bleak 1950s, there were few at home.

Christina McBride’s parents were part of that mid-twentieth-century outflow to Glasgow. Born in Bun an Inbhir, Neilí an Dálaigh (1934–2017)—in English, Nellie O’Donnell—left for Glasgow in the 1950s, where she found a job with Woolworths and met and married Barney McBride (1923–2010). A native of Dunfanaghy, between Gaoth Dobhair and Letterkenny, Barney had given up the family farm to emigrate to Scotland where, in time, he got good work as a steel erector in Caldwell’s Steelworks.

Living in the inner-city Gorbals and later in Toryglen, in the south of the city, Neilí and Barney had seven children, six of whom survived to adulthood. Eileen, who they lost at three months, was buried on St Patrick’s Day with a wreath of shamrocks, symbol of a place she had not lived to see.

Ireland was never far away. Each long summer and school break, the young McBrides left the dark tenements of Glasgow to return to Bun an Inbhir, to stay with Neilí’s parents, Sarah Mhór and Andy. And every Sunday until her death in 2017, Neilí used to sit chatting in Irish with Gaobh Dobhair friends who congregated in the back pews of St Brigid’s Chapel in Toryglen.

Every Sunday until her death in 2017, Neilí used to sit chatting in Irish with Gaobh Dobhair friends who congregated in the back pews of St Brigid’s Chapel in Toryglen.

A child of immigrants, Christina McBride has, like many her of generation, reared in the Gorbals and Toryglen, Govanhill and Coatbridge, been familiar since childhood with the landscape and language of her mother’s homeplace. She is of the place, one of its people; she knows what she sees. She sees Bun an Leaca, An Ghlaisigh and Bun an Inbhir—her heartland, *críocha an chroí*.

¹Identified by Dónall P. Ó Baoill as English orthography for an Irish-language grace once prevalent in the district: Bail na gcúig n-arán agus an dá iasc / A roinn Dia ar an gcúig mhíle a bhí sa tslua / Bail an Rí a rinne an roinn / Go dtígidh ar ár gcuid agus ar ár gcomhphroinn.

About the authors

Breandán Mac Suibhne is a historian and director of Acadamh at the University of Galway. His publications include *The End of Outrage: Post-Famine Adjustment in Rural Ireland* (Oxford, 2017) and, as editor, with Gearóid Ó Tuathaigh, *Ag Cur chun Fónaimh: Údarás na Gaeltachta ó 1980 i Leith* (An Spidéal, 2023).

Laura Kelly works on the social history of medicine and gender history in modern Ireland at the University of Strathclyde, Glasgow. Her most recent books are *Irish Medical Education and Student Culture, c. 1850–1950* (Liverpool, 2017) and *Contraception and Modern Ireland: A Social History, c.1922–92* (Cambridge, 2023).

Niall Whelehan of University of Strathclyde, Glasgow, has written extensively on modern Ireland and the Irish diaspora. Among his many publications are *The Dynamiters: Irish Nationalism and Political Violence in the Wider World, 1867–1900* (Cambridge, 2012) and *Changing Land: Diaspora*.

Flóra na Gaeltachta: saibhreas na bithéagsúlachta mar áis foghlama

Dr Seathrún Ó Tuairisg,
Riarthóir Aonad na Teicneolaíochta
Faisnéise, Acadamh na
hOllscolaíochta Gaeilge

Tugann Seathrún Ó Tuairisg léargas ar phlandaí coitianta agus neamhchoitianta atá le feiceáil i gceantar Chois Fharraige i gConamara, Co. na Gaillimhe. Tugann an obair seo spléach ar a thábhachtaí atá an bhithéagsúlacht don timpeallacht agus don tsochaí — ábhar atá thar a bheith tráthúil anois agus muid in éigeandáil aeráide agus i ngéarchéim bhithéagsúlachta. Is réimse é seo a luíonn isteach go mór le straitéis Ollscoil na Gaillimhe i leith na spriocanna forbartha inbhuanaithe (SDG) — Sprioc 15, Beathra Talún, go háirithe.



Bhí spéis i gcónaí agam sa timpeallacht agus sna plandaí atá ag fás thart timpeall orainn, agus nuair a chuir mé fúm i gceantar Chois Fharraige i gConamara thug mé suntas do na plandaí a bhí ag fás sa ngarraí timpeall an tí. Shocraigh mé na cineálacha éagsúla plandaí sa ngarraí a chomhaireamh agus pictiúir a thógáil díobh, agus faoi dheireadh an tsamhraidh bhí os cionn 75 planda difriúil le bláth aimsithe agam. Is ansin a thuig mé an éagsúlacht, nó an bhithéagsúlacht, de phlandaí a bhí ag fás sa bpaiste beag talún timpeall an tí. Tuigean muid anois an tábhacht atá le bithéagsúlacht — dá mhéad plandaí, ainmhithe agus feithidí éagsúla atá thart timpeall orainn sé is fearr é don timpeallacht agus dúinn féin, mar shochaí.

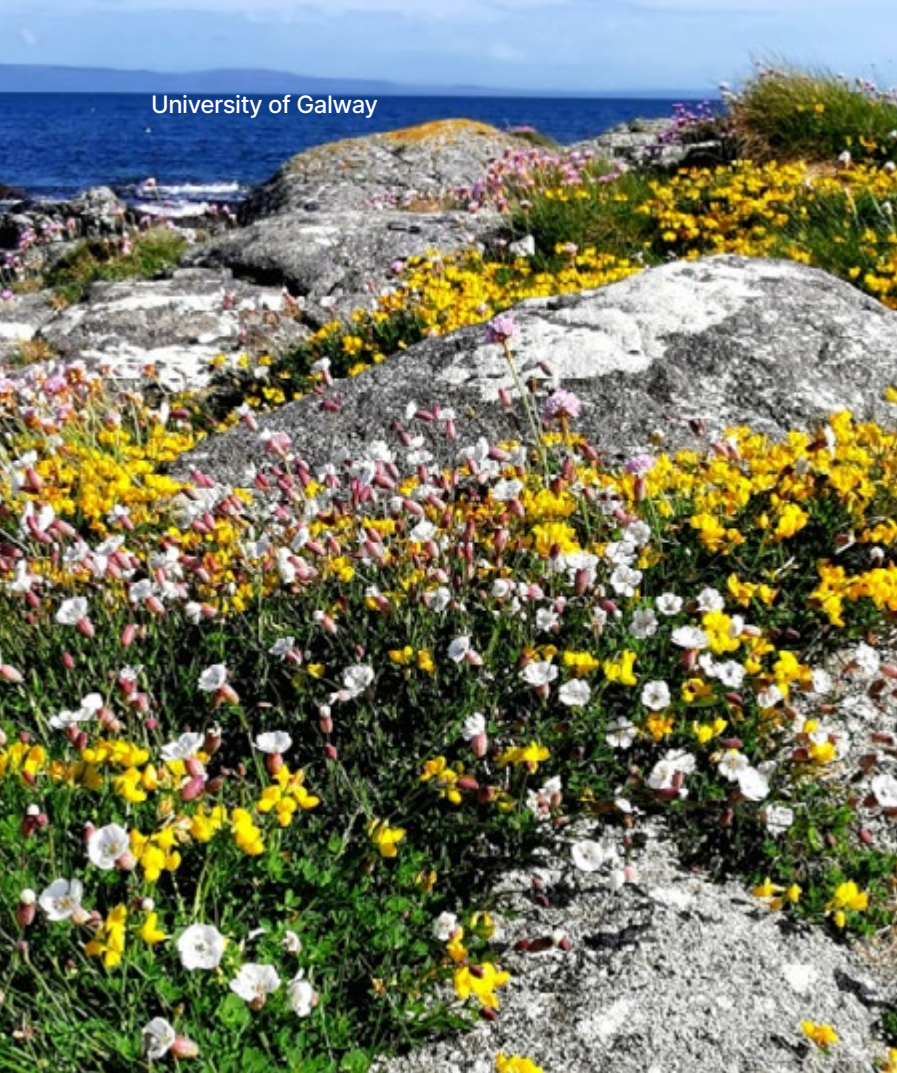
Flóra Chois Fharraige

Agus mé i mbun na hoibre seo smaoinigh mé, má tá an oiread sin plandaí i mo gharraí beag féin, cé mhéad planda eile atá ag fás taobh amuigh den gheata? Shocraigh mé an cheist sin a fhreagairt agus suirbhé a dhéanamh de fhlóra an cheantair ina bhfuilim i mo chónaí, agus taifead den obair seo a chur ar an suíomh idirlín Flóra Chois Fharraige (www.florachoisfharraige.ie). Go dtí seo, tá os cionn 400 speiceas difriúil feicthe agam sa gcoirnéal beag seo de Chonamara — agus neart eile fós le haimsíú.

Is aistear foghlama atá anseo domsa. Mar nach raibh mé in ann ainm a chur ach ar phlandaí coitianta ar nós an nóinín, an caisearbhán agus an dris, shocraigh mé oiliúint a chur orm féin agus na hainmneacha Gaeilge ar chuile phlanda a fhoghlaim. Bhí sé seo éasca le déanamh le plandaí coitianta, ach chun plandaí eile a aithint ba mhínic dom leabhair luibheolaíochta a úsáid freisin. Bíonn ruainne bleachtaireachta i gceist le plandaí a aithint. Ní leor an bláth amháin a úsáid, ach caithfear breathnú ar thréithe eile an phlanda, amhail an gas, na duilleoga agus go deimhin an ghnáthóg ina bhfuil sé ag fás. Bhí uaim go mbeadh gné áitiúil ag dul leis an tionscadal — is é mo cheantar dúchais féin é, agus bhí mé ag iarraidh go mbeadh tús áite tugtha ar an suíomh don ainm is mó atá in úsáid go háitiúil. Ach tá ainmneacha eile Gaeilge na bplandaí áirithe ar an suíomh freisin, agus is nuair a fheictear iad le chéile mar sin go dtuigtear an saibhreas teanga atá in ainmneacha Gaeilge na bplandaí. Tá leideanna iontu faoi úsáid an phlanda san am atá caite, nó faoi sheanchas éigin a bhaineann leis an bplanda.

Caoróg Mhara; Nóinín an Chladaigh, *Armeria maritima*.

An Méaracán Gorm.



Clocha Costa



An Bacán Bán



An Glaschreamh

Ról an Acadaimh agus na hOllscoile

In ainneoin gur tionscadal pearsanta é seo domsa, ar thug mé faoi i mo chuid ama féin, tuigim freisin an tábhacht a leagann Ollscoil na Gaillimhe ar an mbithéagsúlacht agus an inbhuanaitheacht, agus ar na spriocanna forbartha inbhuanaithe (SDG) atá leabaithe i straitéis na hOllscoile. Tá mé lonnaithe in Ionad Acadamh na hOllscolaíochta Gaeilge, Carna agus cuimsíonn an mana atá againn — *“timpeallacht, teanga, traidisún”* — go leor den obair atá ar bun san Ionad. Chuige sin, shocraigh muid go bhforbródh muid sraith painéal (10 gcinn ar fad) a thugann léargas ar ghnáthóga an cheantair. Chuir scoileanna áitiúla an-spéis sna painéil seo, agus nuair a chroch Scoil Sailearna in Indreabhán iad ar bhallaí na scoile thug muid suntas don spéis a chur na gasúir, na tuismitheoirí agus na múinteoirí iontu. Tá an ghlúin óg spreagtha ag an nádúr chuile uair a théann siad amach taobh amuigh — ach tá ábhar oideachasúla trí Ghaeilge uaidh theagascóirí agus tuismitheoirí le gur féidir níos nó a mhúineadh dóibh faoin ábhar tábhachtach seo.

Nuair a thosaigh na múinteoirí á n-úsáid mar ábhar teagaisc roinn muid na painéil leis an gComhairle um Oideachas Gaeltachta agus Gaelscolaíochta (COGG). Thuig siadsan luach an ábhair freisin, agus scaip siad iad ar os cionn 40 meánscoil ar fud na tíre.

Tá muid ag tógáil ar an obair seo. D’fhorbair muid taispeántas preabsheastáin a thugann léargas níos doimhne ar phlandaí an cheantair. Tá an taispeántas anois ar chamchuairt chuig láithreacha éagsúla i nGaeltacht Chonamara, a bhuíochas d’oifigigh pleanála teanga Chonamara Láir. Tá ceardlanna á reáchtáil againn le scoláirí dara leibhéal faoi thábhacht na bithéagsúlachta agus tá oícheanta eolais a n-eagrú chun feasacht an phobail faoin gcomhsaol a ardú. Tá muid ag tabhairt faoin obair seo le fonn agus le díograis mar go dtuigeann muid gur le chéile, mar phobal, a shárófar na dúshláin aeráide agus comhshaoil atá romhainn.

Tuilleadh eolas

www.florachoisfharraige.ie
[@florachoischarraige](https://twitter.com/florachoischarraige)



Coláiste Cholmcille, Indreabhán, Paul Bheilbigh, Aodhán Ó Donnchadha, Daniel Mac Eochagáin. PicMoose.

Ó Chois Fharráige go COP28: Céard atá le rá ag an nglúin óg in Éirinn faoin athrú aeráide?

John Caulfield,
Stiúrthóir Feidhmithe Straitéise,
Oifig an Uachtaráin,
Ollscoil na Gaillimhe

Dear World — sharing a youth message for COP28. University of Galway supports local school students as official observer delegation attends Dubai summit in December 2023. We asked 20 Gaeltacht teenagers what they would like to say to the world leaders meeting at COP28 in Dubai. They expressed their hopes and fears about climate change, and described its impact here in the west of Ireland.



D'oibrigh foireann Ollscoil na Gaillimhe in éineacht le dhá mheánscoil Ghaeltachta i nGaillimh chun dóchas agus inní a ndaltaí a roinnt leis an domhan mór.

Ní hionann an t-athrú aeráide gach áit ar domhan. Feicimid triomach, falscaithe agus leá na n-oighearshruthanna i dtíortha eile. Ach ar chósta thiar na hÉireann is iad an t-ardú ar leibhéal agus teocht na farraige, an méadú ar líon na báistí, agus an scrios ar an mbithéagsúlacht is mó údair inní.

Tháinig 20 dalta meánscoile ó Choláiste Chroí Mhuire, an Spidéal, agus Coláiste Cholmcille, Indreabhán, le chéile i mí na Samhna chun tuilleadh a fhoghlaim faoin ngearchéim timpeallachta. Ghlac siad páirt i dtrí cheardlann le haoichainteoirí ar ábhair éagsúla, lena n-áirítear, flóra dúchasach an cheantair, ról speisialta an phortaigh, an creimeadh cósta agus tionchar an athrú aeráide ar an bhfeirmeoireacht.

D'oibrigh siad le háisitheoirí ollscoile chun a gcuid tuairimí agus mothúchán féin a chur in iúl. Bunaithe ar an aiseolas ar fad ó na déagóirí, cumadh an litir thíos (agus an físeán thuas) chuig an domhan mór.

Dar le stiúrthóir an togra, an Dr John Caulfield: "Tá tionchar an athrú aeráide le feiceáil timpeall orainn anois, agus murar féidir linn dul i ngleic leis, is iad an t-aos óg is mó a bheidh thíos leis. Tá teachtaireacht láidir á roinnt acu anseo agus ní mór dúinn éisteacht. Roinn muid a litir leis an ngrúpa taighdeoirí a d'fhreastail ar COP ar son Ollscoil na Gaillimhe."

Reachtáladh an togra ar fad trí Ghaeilge le haoichainteoirí spreagúla atá ag cur fúthu sa cheantar. Thacaigh Fóram Chois Fharráige um Phleanáil Teanga go mór leis an togra agus is iad an comhlacht Gaeltachta Moose a rinne an físeán. Tá tuilleadh eolais faoin togra 'Cois Fharráige go COP' ar fáil ag: www.universityofgalway.ie/cop28



Coláiste Chroí Mhuire, an Spidéal, Chloe Ní Choisdealbha, Ella Níe Dhomhnaill, Kate Ní Raghallaigh. PicMoose.

A Dhomhain Mhóir,

Ón bpobal beag seo ar imeall na hEorpa, tá bhur gcuid cúnamh á éileamh againn.

Tá cónaí orainn ar chósta thiar na hÉireann, idir portach agus cladach, áit a raibh meas riamh ann ar an bhfarraige. Nuair a bhíonn sí socair téimid ag snámh agus ag iascaireacht. Ach le teacht an athrú aeráide, tá na rudaí is luachmhaire linn ag éirí ina mbagairt.

Léiríonn an taighde go bhfuil leibhéal agus teocht na farraige ag fás go leanúnach. Feicimid go bhfuil stoirmeacha an Atlantaigh níos cumhachtaí, níos coitianta. Tá líon na báistí ag méadú gan stad. Is cosúil go bhfuil na séasúir féin as a riocht.

Táimid buíoch as an trá, na garrantaí, an portach agus gach a mhaireann ann. Ach táimid buartha freisin. Fiú le linn ár saoil, feicimid taisce na timpeallachta ag dul i léig.

Ní hé an t-aos óg a dhóigh an ola, a bhain an mhóin, a leag na crainnte. Ach is muid a bheas thíos leis. Tá an ghlúin seo réidh le tabhairt faoin athrú aeráide le fonn agus fuinneamh. Ach an bhfuil sibhse?

Seasaimis le chéile, mar phobal daonna domhanda, is déanaimis beart de réir ár mbriathar.

Is muide le dóchas,

Déagóirí Chois Fharráige.



John Caulfield, Stiúrthóir Feidhmithe Straitéise, Oifig an Uachtaráin.

The Learning A Library, Rein

Monica Crump,
Leabharlannaí na hOllscoile Eatramhach
Interim University Librarian,
University of Galway

Monica Crump, Interim University Librarian explores this radically different library of the future, supporting collaboration, creativity and new forms of teaching, learning and engagement.

The doors of the James Hardiman Library first opened to students in November 1973. 50 years later, the first signs of the greatly anticipated new Library and Learning Commons will soon be visible, when hoardings are erected in a riverside location on campus between Distillery Road and the Kingfisher Gym. Why the move away from the James Hardiman Library? And why a Learning Commons?

The James Hardiman Library was designed and built at a time when teaching and learning in Higher Education was dominated by the “chalk and talk” method. Lecturers imparted information to their students in large lecture theatres and students listened, read the works of experts in their fields, absorbing information and building their knowledge. The outputs of scholarly publishing were available only in print format and a Library’s value was measured in terms of the number of volumes in its collections. These realities are reflected in the design of the James Hardiman Library with a large proportion of the building dedicated to bookshelves and collections. Study spaces placed around those bookshelves comprise large banks of desks, where students can silently read, reflect and learn.

While the “chalk and talk” method still has a place within Higher Education and students certainly still need to read the works of the experts in their field, teaching and learning practice has become more collaborative, more interactive and more creative. Students are expected to work together on group projects, to take a problem-based approach to learning, to innovate and create solutions to real-world problems. Alternative assessment methods require students to produce a presentation, a podcast, a blog, a video or even a 3D-printed artefact. Students require appropriate spaces to work together and to create, activities that were not anticipated in traditional library design.

Scholarly publishing is now predominantly delivered online, and Library electronic collections significantly outweigh those in hard copy format. University of Galway Library collections, for example, comprise 520,000 hardcopy books, but nearly a million e-books. The Library makes 236,000 journal titles available to users, of which only 570 are received in print format. Libraries are no longer defined by their print holdings and the dedication of so much prime space to physical collections, whose use has dramatically decreased, while students struggle to find the spaces they need to study and collaborate, is no longer appropriate.



Commons— Reimagined



University of Galway Library collections comprise 520,000 hardcopy books, but nearly a million e-books.

All of these changes have led to a vision of a new type of Library, that incorporates a Learning Commons. A Learning Commons is a space that enables collaboration, creation and social learning. It provides technology, tools and equipment, often in a Makerspace, as well as expert staff available to help. Furniture is often designed to be flexible and moveable, so that students can rearrange tables and seating according to their particular needs at a given time. In 2019, the

University of Galway was granted HESIF¹ funding to build a Learning Commons and work has been ongoing with RKD Architects to bring that vision to life. Planning permission was granted in August 2023 and work will begin in early 2024 to clear the site, ready for construction to commence in 2025.

Our vision for the new University of Galway Library and Learning Commons is of an inspirational, welcoming, high-tech space of learning and creativity. It will be a space that brings diverse people and disciplines together, enabling interaction, discovery, innovation and new partnerships. It will be a vibrant scholarly and social space.

The ground-floor of the building will have entrances to the North and South and will comprise an open, collaborative Welcome Zone, linking the North and South campuses. This Welcome Zone will be open to the wider community and will include an exhibition area and event space, where a rolling programme of exhibitions will showcase the research of the University as well as our archives and special collections. The Welcome Zone will include a helpdesk, a first port of call for queries on Library or IT matters. There will also be a Learning Success Hub, where expert help will be available to students on all aspects of their learning journey, for example academic writing, information seeking, citing and referencing. ▶



The building will be fully accessible throughout, and specialist support and technologies will be available to students with disabilities through the Assistive Technology Centre. The Digital Scholarship Centre will provide support, technologies and collaborative opportunities for data analysis, visualisation, image processing and other digital scholarship techniques. The Makerspace will provide space, equipment and support for students to imagine, design and build, enabling 3D printing, electronics development, and audio or video production, including virtual reality.

Throughout the building, students will find collaborative spaces in the form of breakout soft seating areas, enclosed group study rooms or diner style booths, where they can meet, collaborate and discuss without fear of disturbing others. Of course, individual, quiet study spaces are still very important and the building is designed to become increasingly quiet as you move up through the floors. We will offer

students a wide variety of study space style to reflect different learning preferences and different stages of their learning journey. For example, seats with views, maximising the riverside location, will be available for the reading or reflective phase of learning and enclosed carrel type seats will suit those at head-down write-up time.

As well as being a Learning Commons, the building is also a Library and therefore Collections remain a key component. We will continue to have some collections on open shelving, however, the proportion of our collections on open access will be significantly less than currently. The vast majority of our collections will be stored in a high-density, automated storage and retrieval system, what we are calling the Bookbot. The Bookbot will store books and journals in crates, which are tightly packed in a racking system and retrieved by an automated system. As soon as a user requests an item via the library catalogue, the

The vast majority of our collections will be stored in a high-density, automated storage and retrieval system, what we are calling the Bookbot.

Bookbot retrieves the relevant crate, library staff remove the requested item from the crate and make it available for the user to collect. These systems are hugely efficient in terms of the space they occupy and so enable us to maximise the space available for student spaces as outlined already. Our Archives and Special Collections will remain in their current home in the Hardiman Research Building. To ensure that we retain a strong link for all students to that cultural heritage, we will be building in ways to showcase our Archives and Special Collections throughout the building, as well as via the Exhibitions space.



Students spend long hours in the Library and therefore looking after their well-being is very important. The building will include a café, a relaxation space and a sensory space for a complete escape to calm for those with sensory issues. An outside terrace as well as external seating and a biodiversity garden at ground level will provide opportunities for students to connect with nature and get some fresh air.

The Library is the heart of any University campus and as our campus has developed towards the North, it is entirely fitting that the Library will move to the new centre, linking North and South Campuses, providing a central symbol of the scholarly endeavours of the University Community. Ní amháin Leabharlann a mbeidh ann ach Lárlann i gcoí-lár an champais.

¹ Higher Education Strategic Infrastructure Fund.

Monica Crump is Interim University Librarian, in which role she is responsible for leading the University of Galway Library team in the delivery of the **Library Strategy: Preserving the Past, Enabling the Future**. A particular focus of her work is the planning of a new Library Building, which will deliver a future-ready learning environment, supporting the University's **Academic Strategy — Teaching and Learning**, by enabling students' collaboration and creativity, supporting their learning success, as well as providing collections and spaces for individual, focussed study.

Monica has nearly 30 years' experience working in higher education, as a librarian and a researcher. She has particular interests in the ever-evolving world of scholarly communications and publishing, as well as the alignment and development of teams to deliver institutional strategic goals and support evolving user needs.

Student Insight

Students for Climate Action

Cameron Noah Keighron,
PhD Student, Department of
Physiology, University of Galway

University of Galway student Cameron Noah Keighron has joined 35 other students from 18 countries across the globe, to pave the way for a new generation of climate action. Through the Tallories Network, a cooperation for social responsibility in Higher Education, the group have devised a ten-year action plan to drive civic engagement and influence policy around education and meaningful research on the gendered impacts of climate change.

Cois Coiribe: Can you tell us about the The Talloires Network and how you first got involved in this movement?

Cameron Noah Keighron: The Talloires Network is a growing global cooperation of 431 university Presidents, Vice-Chancellors and Rectors in 86 countries who have committed to promoting and developing civic roles and social responsibilities in Higher Education. It is the largest network of its kind focusing on civic engagement. Their mission, which you can read about in the [Talloires Declaration](#), is to improve the communities we all live in and provide opportunities for collaboration and innovation. So, that means co-creating change with universities, community partners and industrial partners in the areas of disease, famine, structural racism, gender oppression, economic inequality, climate change and political polarisation (find out more about these areas [here](#)).

Over the past 2.5 years, our group have worked together across many continents and time zones, to forge a plan to sustain the next generation leaders programme, ensuring that more students and young people can shape the future of the world that they will grow up in.

I first got involved in 2021 during the COVID-19 pandemic, where I saw an opportunity to be a part of a group called the “Next Generation of Leaders” (NGL) programme. This programme focused on four core areas: civic engagement in Higher Education, pandemic recovery & resilience, structured listening methods and innovations in gender equity. All of us involved are committed to creating a better world than the one we see. We see health, gender equity, climate change and access to education as core areas where the voices of young people are at times ignored or left out, and we wanted to change that. We were a group of young people from across the globe, coming together to drum up innovative solutions to some of these key challenges, and thinking about the specific role that the university can and should play. 36 of 200+ students were selected from 18 countries to take part. This group was then split into four working groups, each focused on a specific area.

I worked with an incredible group, exploring the impact of climate change and COVID-19 on women and girls. We made policy recommendations for Higher Education that we felt could help. Over the past 2.5 years, our group have worked together across many continents and time zones, to forge a plan to sustain the [NGL programme](#), ensuring that more students and young people can shape the future of the world that they will grow up in. This programme has also allowed us to showcase some of the projects we are already doing in our own communities around mentorship, opportunities for young people and circulating information. ►



80% of people displaced by climate change are women, and most of the industries and employment opportunities threatened by climate change disproportionately affect women and girls around the world.



CC: What have you learned about the impacts of climate change on gender inequality since joining this group?

CNK: 80% of people displaced by climate change are women ([UN Environment](#)), and most of the industries and employment opportunities threatened by climate change disproportionately affect women and girls around the world. Through the NGL Programme, we created a project titled “Gender in Dual Crisis: Women at the Intersection of Climate Change and COVID-19” where we explored through multiple lenses (including geographical location, socio economic status, education and access to resources and information), the effect that both these crises had on an already marginalised group. We wanted to inspire our Higher Education institutes to take a leadership role in co-creating solutions for women and girls, by women and girls.

From our research, we found that COVID-19 added extra economic pressures, complementary to existing structural barriers, discriminatory social norms and gender inequalities that were already exacerbated by climate change. Women faced an increased level of violence during COVID-19 with key sectors of employment such as tourism, manufacturing, commerce and paid domestic work taking a sharp decline during the pandemic. This only served to heighten the discrimination that many women and girls were facing. We explored the role of women in agriculture, food and water (key areas affected by climate change), unpacking challenges in those areas such as unequal decision-making power, violence, extreme weather and access to resources. We found that there was a lack of gendered analysis in discussions about climate change. From the absence of women’s and girls’ perspectives, we noted a tendency towards misogyny in working policies, particularly in response to global pandemics.

Knowledge can only be cultivated where it is supported, and there is a need for meaningful inclusion of women, girls and indigenous communities in research unpacking the gendered impacts of climate change.

Following this work, there were a few policy changes that we recommended. Firstly, knowledge can only be cultivated where it is supported, and there is a need for meaningful inclusion of women, girls and indigenous communities in research unpacking the gendered impacts of climate change. This research must be action-oriented, employing innovative tools to address issues in a time-sensitive manner.

Secondly, we have recommended policy that safeguards access to education and upskilling, especially in areas most impacted by climate change. Easily overlooked factors such as housing, finances, health care and food all play a significant role in facilitating access to education. It’s worth highlighting that equal access and opportunity improves the quality of research because diversity is key to a well-rounded perspective on a global issues like climate change. That brings me to our last recommendation — network creation. Universities have a unique opportunity to create national and international networks in which ideas and best practices can be shared. Given the large community of students, staff and alumni available to each university, there is huge potential for those communities to pull together and lobby for specific policies and laws.

CC: What are some of the action steps that have come out of your most recent deliberation event?

CNK: Most recently, our NGL group travelled to Boston to complete a programme of work expanding the NGL programme beyond us as students and our institutions. We, as young people, are aware that there is a generation coming up behind us and we must leave something sustainable for them to be a part of. At the beginning of the last academic year, the 36 of us agreed to take on a year-long project to expand our skills in a way that supports the sustainable growth of youth projects. We have begun the process of training ourselves as mentors. This involves a lot of sessions on grant writing and budgets — the fun stuff! As well as leveraging resources and self-care. On our home campuses, we presented civic engagement awards to rectors/presidents, and held a range of campus events to capture the needs and opinions of young people in our communities. In 2023, we presented a proposal to Mastercard Foundation, which secured us a grant of 250,000 dollars to continue our efforts online for another year. But our targets extend well beyond that; we now have a ten-year plan in action to open up the NGL programme to more students, young people and universities.

Find a project or initiative that fills you with passion and excitement — do something that is rewarding, for you and for the environment around you.



For Youth, By Youth Gathering in Boston, August 2023. Hosted by The Talloires Network.

CC: What would you say to a student who wants to get involved in climate action?

CNK: Climate action can seem overwhelming with all the media, reports and statistics; you might feel like you don't know where to start. I have also felt like this, but there are lots of ways to get involved, and lots of people who want to help. If you are a university student, you can get involved with the Students' Union Environmental work. There are also plenty of places in the City to get involved through the Galway City Community Network, local volunteering opportunities, Youth Work Ireland Galway or simply by starting your own initiative. Find a project or initiative that fills you with passion and excitement — do something that is rewarding, for you and for the environment around you. Remember, things will always seem like an uphill battle, but there are plenty of us to help you along the way!

Cameron Noah Keighron is a final year PhD researcher in the school of medicine looking at stem cell therapies for Parkinson's Disease. Cameron is passionate about community engagement, creating opportunities for young people's voices to be heard. They work to improve access to education, LGBT+ rights and climate justice. They have also worked extensively in including young people's voices in patient, public involvement in medical research with a focus on diabetes innovations.

In Conversation: Ibec CEO, Danny McCoy

True prosperity calls for a balance between public and private sector, argues Danny McCoy, University of Galway alum and CEO of Ibec (Irish Business & Employers Confederation).

With a varied career as an executive, senior economist and lecturer, this University of Galway alum has developed a strong perspective on the makings of a sustainable economy.

Here, Danny sits down with *Cois Coiribe* to share his views on education, sustainability, globalisation and more.

Cois Coiribe: Can you introduce yourself and tell us about your role at Ibec?

Danny McCoy: Ibec is the Irish business and employer confederation. We're the largest business representative organisation and lobbying organisation in Ireland. We're also the biggest of our kind in Europe. Ibec is a €41M turnover business with over 300 staff, 39 brands and ten locations. Regarding our interface with government, we're the lead social partner in the Labour Employer Economic Forum. I've been the CEO there for the last 14 years.

my career, and it's taken me all the way to all these places you've mentioned. Every single day, I lean on that foundation. And I can see it; it's very structural and tangible to me.

One of the features in our lobbying is to say that the state has become too small for the scale of the private sector, and we need to fund our universities and our ecosystem to quickly underpin this prosperity that we have.

The real strength of being an alum was in having that framework at the start of my career, and it's taken me all the way to all these places that you've mentioned. Every single day, I lean on that foundation.

CC: You have referred to Ireland in the past as the world's most globalised nation. What kind of new advantages and challenges does this bring?

DMC: Ireland has become the most globalised nation on earth, and the main driver of that has been the business community in Ireland which is disproportionately large for a population of just over five million people. The advantages of that globalisation is that it provides Ireland with a living standard that is ranked among the top nations in the world. We're comparable to Luxembourg, and the premise on which that business model has been based is the educational attainment delivered by universities such as University of Galway.

CC: You have played an influential role in a range of professional environments, from the lecture hall to the European Commission. What is it that motivates you the most in your career?

DMC: One of the main things that my experience as a student at University of Galway in the 1980s offered me was the time to build an analytical framework. In my case, that was delivered through economics. I lean on that framework for any situation, be that professionally or in my private life. That education conditioned me to have a perspective, and a consistent and coherent framework on which that perspective can operate. The real strength of being an alum was in having that framework at the start of

This has been transformational in the last generation, and we are now harvesting the seeds of that particular investment from 30 years ago. So, it's really important that the investment is continued. One of the features in our lobbying is to say that the state has become too small for the scale of the private sector, and we need to fund our ►





universities and our ecosystem to quickly underpin this prosperity. That's one of the main aims of Ibec in the upcoming budget.

CC: In your view, what are the main factors that blinker industries in driving sustainable development?

DMC: Going back to my academic past, I lectured in environmental economics at London and Oxford, before coming back to Ireland. I've continued to teach environmental economics over the last 30 years; the one feature that I see blinking us is that people don't fully understand the science of climate change. There are people who are unfamiliar with the science behind carbon, yet talk about carbon issues as if they have full knowledge. And none of their actions are consistent with their professed values.

So, there is a huge disconnect right across our society, not just in business, but also in universities and society generally. People say that they want a net-zero carbon economy by 2050, a 50% reduction by 2030. It's not happening; emissions are actually rising. We're nowhere near a reduction, and certainly not that scale of reduction. And so, there is an ignorance of what is involved and I think we need to bridge that gap — which is a function of universities and of leaders more generally being realistic. People have to be confronted with reality. It's not enough to say, "I'm for sustainability." Your actions have to be consistent with your professed values, and right now, there is a cynicism where people profess to have values but are not willing to pay the price.

I think this particular brand is by far the best. University of Galway has that duality of continuity and heritage within a modern, global university.

CC: You've talked in the past about sustainability virtue signalling as a kind of avoidance technique among businesses. What distinguishes virtue signalling from true sustainable action?

DMC: There is an Oscar Wilde quote: "What is a cynic? A person who knows the price of everything and the value of nothing." That particular mantra could equally apply to the values that people profess to have about the environment despite their unwillingness to be confronted with any price.

What is even more cynical than virtue signalling is the unwillingness to have your budget reflect your values. Don't tell me what your values are; show me your budget. As a mature society led by our universities, we need to actually make those connections. It's not enough to say that we have a friendly and open society; we have to actually underpin that with resources. Here in Ireland, we have allowed the state to shrink before our eyes. We have private affluence developing in coexistence with a public squalor. True prosperity calls for a balance between public and private sector.

People say that they want a net-zero carbon economy by 2050, a 50% reduction by 2030. It's not happening; emissions are actually rising.

CC: As a University of Galway alum, how does it feel to be back on campus? Do you see a big change in the university, especially given the recent rebrand?

DMC: It's a pleasure to visit the university. So much of it is familiar and enduring in terms of the buildings and the atmosphere, but I'm also struck by the modernity and dynamism. The scale of opportunities that are now offered to a much wider cohort of society compared to that of the 1980s, when I was there. I've lived through three brands: University College, Galway; NUI Galway and University of Galway. Gladly, I'm not old enough to remember it as Queen's College, Galway. I think this particular brand is by far the best. University of Galway has that duality of continuity and heritage within a modern, global university. I think the branding is superb; rooted in Galway as a university town, while also stating its place in terms of universities of the world.

Danny McCoy is Chief Executive Officer of Ibec, Ireland's largest business representative organisation and the country's largest lobbying group, since 2009. He is a member of the Irish Tripartite Labour Employer Economic Forum (LEEF), a Member of the Royal Irish Academy, a Knight of the Order of the Star of Italy, Honorary Fellow of the Irish Academy of Engineers, Adjunct Professor at Trinity College Dublin Business School and Vice President of the Statistical & Social Inquiry Society of Ireland.

He has held lecturing posts at University College London, University of Oxford, Trinity College Dublin and Dublin City University. He has been senior economist at the Central Bank of Ireland and the Economic & Social Research Institute.

Learn more about Ibec [here](#).



Alumni Spotlight— Sam Murphy-Kerry, Accenture

Sam Murphy-Kerry,
North America Director,
Sustainability Studio, Accenture Song

University of Galway graduate and business strategy leader, Sam Murphy-Kerry is the North America Director at the Sustainability Studio at Accenture Song, the tech-powered creative group of Accenture. Accenture Song’s Sustainability Studio is dedicated to making sustainability relevant and actionable for everyone. As the business world increasingly faces pressing calls for sustainable action, creativity and strategy have never been more important. Here, Sam explains to *Cois Coiribe* why sustainability and growth, by definition, “ought to go hand in hand.”

Cois Coiribe: Take us through a day as a Director at Accenture with the remit of embedding sustainability into Accenture’s client work?

Sam Murphy-Kerry: My role is within Accenture Song’s Sustainability Studio. In my role, I am responsible for business and offering development and client relationship management, meaning I am constantly working with colleagues, clients and partners across a wide range of challenges, opportunities and geographies.

This year, I’ve mostly been focusing on energy and transportation decarbonisation. I have been working closely with a global energy player looking to understand consumer motivations and behaviours around electric vehicle (EV) purchasing and charging.

I led a team of designers, engineers and commercial strategists in identifying systemic and behavioural barriers to the adoption of electric vehicles. Based on these insights, we defined new products and services to help our client scale EV adoption and grow their own market share of EU charging volume, all powered by renewable energy.

Outside of large-scale programs such as this, I am constantly working with colleagues, experts and partners to guide our clients in embedding sustainability into their core business.

On many of my projects, I am constantly pitching, prototyping and customer testing — all critical skills I developed during my time at University of Galway.

According to our latest data with the United Nations, executives still believe that tackling climate change is a top priority, recognising that it is critical to business resilience. With only 15% of SDGs on track for 2030, never has the world needed the blend of creativity and strategy more than today.

CC: Many business leaders see the importance of sustainability. Is sustainability compatible with growth? How does Accenture support businesses to bridge that gap?

SMK: To be sustainable is to provide for the needs of the present without compromising the needs of the future. By definition, sustainability and growth ought to go hand in hand. Unfortunately, the path to connecting these two perceived tension points is not always clear.



Those of us who work in sustainability every day are constantly challenged to demonstrate creativity and strategic understanding of our client's business models in order to help leaders do well while doing good.

The Accenture — UN Global Compact Private Sector SDG Stocktake shows that we are off track in our pursuit of the 2030 goals, but executives still believe that tackling climate change is a top priority and is critical to business resilience. With only 15% of the SDGs on track for 2030, never has the world needed the blend of creativity and strategy more than today.”

At Accenture, we support clients in bridging this gap across energy transition, regulation and data, supply chain, procurement, responsible leadership and design. My team is the designated sustainable growth engine, tasked with influencing culture, pioneering new sustainable business models and activating people. Last year, we completed a study on people's relationship with sustainability titled “Our Human Moment,” and our findings were eye-opening. Our core finding was in order to make the world more sustainable, we must focus on making sustainability more human, not on making humans more sustainable.

We have also had the good fortune to partner with the United Nations Global Compact for many years, working hand in hand with them to equip companies with the insights, assets and tools they need to meet the Global Goals. In September of this year, the UN Global Compact launched Forward Faster, a global initiative to help get the world back on track to meet the 2030 goals. Accenture Song's Sustainability Studio was the creative partner supporting this initiative.

Through this initiative and others, we are putting our money where our mouth is, committing and delivering on aggressive net zero targets for our own operations and hiring sustainability experts across the globe to advise our clients in setting and delivering ambitious sustainability goals. ▶



CC: The digital transformation of education continues to accelerate at rapid pace. We see universities using digital technologies to connect and improve student experiences. How can companies such as Accenture assist universities in overcoming the challenges of navigating both virtual and on-campus student experiences?

SMK: Honestly, I don't think any organisation — education, government, or corporation — has comprehensively solved this challenge. From my perspective, I am convinced that the on-campus experience is impossible to replicate no matter how effective or immersive our technology becomes. Maybe I am old-school in that viewpoint, but at the most basic human level, I believe we thrive off chance encounters, the diversity of perspectives and the sheer energy of campus life. The best way I think companies like Accenture can assist is by sharing what we have learned from our own 700,000+ person organisation and helping you implement solutions that have worked for us. Some learnings we have are:

- For straightforward skill building (like say, coding) or knowledge dissemination (like facts and figures about an industry), in-person and virtual learning experiences get about the same results.
- If you need to build interpersonal skills that benefit from face-to-face practice (like sales training), or if you have an objective to build community, or you just want a morale bump, face-to-face is better.
- What doesn't really work are hybrid courses, where you have a "main classroom" with most people in attendance, and others virtually dialling in. The virtual people always seem to have a less-than experience so it is typically better to organise two separate sessions.

My classes in accounting, economics, strategy and product management provided me with the knowledge and skills I needed to succeed in the corporate world.

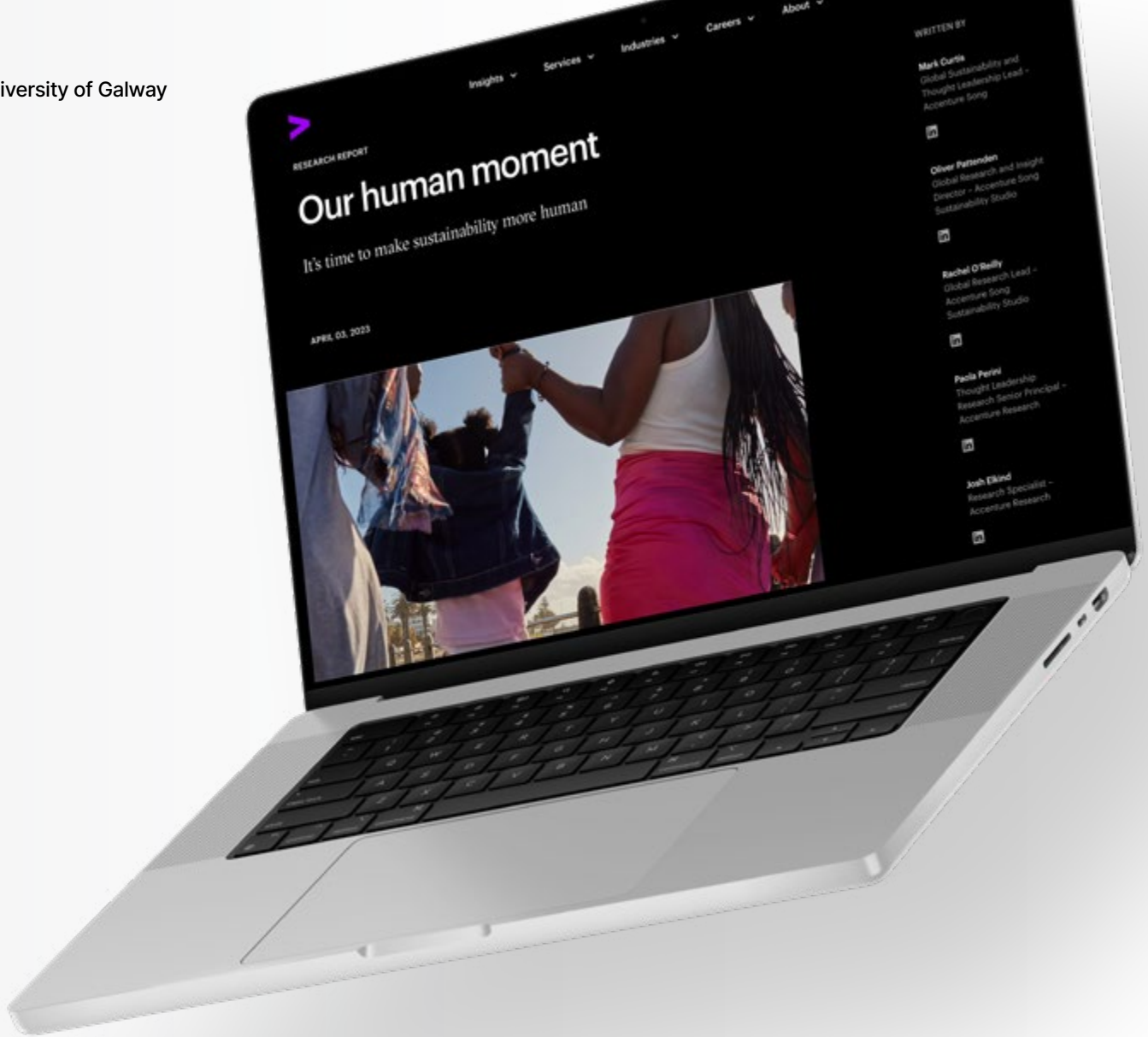
CC: How did your experience as a student at University of Galway help you along in your career path, and can you recall your most memorable moment?

SMK: Looking back, it's clear to me that I've always been a little bit unorthodox, balancing the security of the proven path with some more eclectic tendencies!

My course, Commerce and French, was relatively unique in the Irish system, combining a traditional B Comm at University of Galway with the added value of a foreign language, offering graduates international experience. Our French Language Lecturer, Ruadhán Cooke, played a vital role in shaping the young adult I would become. He had a generosity of spirit with our small class whilst channelling his competitive rowing spirit to serve as a pacesetter for all of us. I had a small but close group of friends who all harboured ambitious career goals but equally wanted to make the most of our time together. I will always cherish the fond memories I have spending time with friends at the college bar and café, and the Kingfisher Fitness Club.

My classes in accounting, economics, strategy and product management provided me with the knowledge and skills I needed to succeed in the corporate world. It's difficult to choose a single memorable moment, however, three in particular stand out:

- For any graduate of University of Galway living in Corrib Village in first year, emerging from the parochial environments of our home towns to a place where you can live, study and play with so many kindred spirits is a special phase. The friends I made there are still some of my closest today.
- At age 16, I set my sights on University of Galway's Commerce with French course. In my third year, I had the privilege of studying as an Erasmus student in Strasbourg, where I made friends from all corners of the globe, vastly improved my French language skills and gained invaluable exposure to the workings of the European Parliament in Brussels and Strasbourg.
- Lastly, in final year, I was lucky enough to be guided by a wonderful lecturer, Michael Campion, who introduced me to the world of corporate innovation in a practical class called *Innovation, Creativity and Enterprise*. Three friends and I won a yearlong competition where we developed a new product called Clever Clubs that sought to forge stronger bonds between parents and young children through the form of a smart teddy bear. This course taught me the art of pitching, prototyping and customer testing — all core parts of my work today.



CC: What advice would you offer current students at University of Galway?

SMK: Keep the faith and keep putting one foot in front of the other. In the current economic environment, it can be tempting to revert to the tried and tested. Choose a path after university that gives you the options you need to make your mark in the world.

I'm a big believer in the power of creativity, perseverance and humility, whatever your field. Whether you're a biomedical engineer developing devices to improve health outcomes, a civil engineer developing sustainable new materials, a commerce student scaling sustainable business models, a lawyer shaping business-friendly environmental policy or a data scientist unlocking new insights to influence human behaviour for the better — each of you will play a pivotal role in safeguarding our planet for generations to come.

The older I get, the more I realise that small, consistent acts carried out through collaboration are the most powerful drivers of change. Translate this sentiment into your own context and you'll be just fine. And don't sweat the small stuff! Embrace the circuitous nature of a modern career.

The older I get, the more I realise that small, consistent acts carried out through collaboration are the most powerful drivers of change.

Sam Murphy-Kerry

Based in the US as the North America Director of Accenture Song's Sustainability Studio, Sam Murphy-Kerry is an innovative sustainability and business strategy leader with a proven track record in driving sustainable models and client innovation. Skilled in team management, cross-functional collaboration, and industry-first projects, Sam is passionate about leveraging his expertise to contribute to organisations seeking to advance sustainability and strategic growth initiatives across various sectors.

In Conversation: Oliver Wall, Chief of Staff at Bank of Ireland

Oliver Wall,
Chief of Staff and Head of Corporate
Affairs, Bank of Ireland

In University of Galway’s Literary & Debating Society, Oliver Wall first practiced the leadership skills that would stand to him throughout a rich career in politics and corporate affairs. A former adviser in the Department of an Taoiseach during Ireland’s Presidency of the EU Council, Oliver Wall is now Chief of Staff and Head of Corporate Affairs at Bank of Ireland. We caught up with Oliver to learn more about the impact of his work at Bank of Ireland, from wellbeing at work to greenhouse gasses and more.

Cois Coiribe: Take us through a day as Chief of Staff and Head of Corporate Affairs at Bank of Ireland.

Oliver Wall: Clichéd as it may sound, no two days are the same. As well as being Chief of Staff to the Group Chief Executive Officer, I also have responsibility for External Communications, the Office of the General Counsel, and the Group Secretariat and Corporate Governance Office. My days can vary between working on our corporate strategy, meeting with customers, dealing with the media, setting agendas for our Board, to spending time with colleagues throughout the group. It’s certainly never boring!

OW: “Power Down and Recharge” was something we began during the COVID-19 pandemic. For many of our colleagues, the boundaries between work and life became blurred during the pandemic. For colleagues working remotely, it felt less like “working from home” and more like “living in the office.” For colleagues working in branches, there were extra challenges and stress. All colleagues were united by the fact that we were all working differently to before. “Power Down and Recharge” was exactly as described — Bank of Ireland’s commitment to encourage everyone to switch off and recharge during and after the working day. This meant promoting routines with regular rest breaks, respecting flexible working arrangements and building in recharge time throughout the working day. We put in place a number of wellbeing supports during 2020 that continue today.

For colleagues working remotely, it felt less like ‘working from home’ and more like ‘living in the office.’ “Power Down and Recharge” was exactly as described — Bank of Ireland’s commitment to encourage everyone to switch off and recharge during and after the working day.

I think it is certainly something other companies and sectors could benefit from. Wherever you work, ensuring that people can switch off and rest is central to productivity. Exhausted people will never be at their best. We have actually worked with a number of our customers to share our process, and I know many of them have adopted similar programmes.

CC: Bank of Ireland’s wellbeing strategy, “Power Down and Recharge” encourages colleagues to switch off and recharge during and after the workday, ensuring that employees sustainably distribute their workload. Firstly, tell us how this model came about and secondly, do you think is a model that other sectors could benefit from?

We’ve reached an important inflection point here, with around half of new mortgages in Ireland being green.



CC: I see that Bank of Ireland became the first Irish bank to have their greenhouse gas (GHG) emission targets validated by the Science-Based Targets initiative (SBTi) in 2022; a big milestone. Can you tell us more about BOI's sustainable finance strategy, and its impact in terms of building a sustainable economy?

OW: Combatting climate change is one of the biggest challenges facing society and Bank of Ireland is committed to supporting the transition to net zero by 2050. We set ambitious GHG reduction targets and were delighted to be the first Irish bank to have these targets validated by the SBTi. Under the targets, we are committing to emission reductions of 48% in our residential mortgage portfolio and 56% in our commercial real estate portfolio by 2030 as well as 49% from our own operations. We have also committed to ensuring that 25% of Bank of Ireland's corporate loan portfolio will have SBTi-validated targets by 2025.



Many of my outstanding memories are from The Literary and Debating Society on Thursday nights.

Sustainability is at the centre of our updated strategy, which we set out earlier this year. Our core sustainability pillars are; supporting the green transition, enhancing financial wellbeing and enabling colleagues to thrive. We have firmly moved from ambition to action, taking practical steps to support our customers and Bank of Ireland towards a more sustainable way of living and doing business. In 2022, there was a significant increase in the level of sustainability-related lending, with Irish green mortgages a particular standout. We've reached an important inflection point here, with around half of new mortgages in Ireland being green. We also continue to drive forward our financial wellbeing agenda, and foster a collaborative and inclusive environment for colleagues.

CC: How did your past experience as a student help you along in your career path, and can you recall your most memorable moment from your time at University of Galway?

OW: I learned so much as a student in Galway — often as much outside the classroom and lecture theatres as inside. Learning how to question, think critically and challenge accepted norms and pre-conceived ideas have all stood with me throughout my career. Many of my outstanding memories from this time are from [The Literary and Debating Society] Lit & Deb on Thursday nights in the Kirwan lecture theatre (and continuing in the bar after). These are transferrable skills, and wherever I have worked — across Government and the civil service, through to the private sector in Ireland, the UK and Europe — what I learned at this time has served me well.

CC: What advice would you offer to current students at University of Galway?

OW: Be bold, be brave. The less obvious career opportunities I've taken have always turned out to be some of the best decisions I've ever made.

Oliver Wall joined Bank of Ireland as Group Chief of Staff in 2017, taking on additional responsibility as Head of Corporate Affairs in 2019. Oliver previously held a range of roles in both the public and private sectors, including working in the Department of The Taoiseach during Ireland's 2013 Presidency of the Council of the EU. Oliver joined Bank of Ireland from HSBC where he was Head of External Affairs UK and Europe. Prior to this, Oliver was Regional Head of Political Engagement, Europe for HSBC. Oliver, an Irish national, is a graduate of University of Galway.

A Better World through Better Business

Dr Johanna Clancy,
Lecturer in Business Enterprise,
J.E. Cairnes School of Business and
Economics, University of Galway

In a 1970 essay for *The New York Times*, Nobel Prize-winning economist Milton Friedman stated that “*The Social Responsibility of Business is to Increase Its Profits.*” Fast-forward over 50 years, business is confronted with major socioeconomic, environmental and geopolitical disruptions, challenged as never before to adapt, be relevant and contribute solutions to the world’s pressing issues (AACSB Pathways) — as well as making profits.



Compounding all the disruptions to business in the last 50 years is a solid shift in workforce priorities and values, including a desire among graduates to work for socially responsible companies. A recent UK study found that “91% of graduates want to ‘make a difference’ in their job” (Prospects, 2022), while some will accept lower salaries for roles that have the potential to give back to society. Indeed, many graduates are now considering their activism to be more important than their careers. This is forcing a rigorous reflection on the pastoral role of the business school for the public good, rather than simply as a training ground for future servants of power. “Business as usual” will not suffice. Responding to the changing landscape, University of Galway’s J.E. Cairnes School of Business and Economics has put the public good at the heart of its mission and 2021–2025 strategic plan.

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Walking the Talk

At the recent keynote address of the Irish Academy of Management conference, hosted by J.E. Cairnes School of Business and Economics, Prof Martin Kitchener — Chair of the Chartered Association of Business Schools’ Taskforce on Business Schools and Public Good and former Dean of Cardiff Business School — stressed that business schools need to reimagine their purpose and place in the world as “public value institutions”. While there is evidence of talk-action gaps in business schools generally, J.E. Cairnes School of Business and Economics has, for some time, excelled in expanding our public good role into non-economic territory, identifying as a place-based institution in creating an ecosystem for maximising the public good.

The School is dynamically transforming efforts to address the SDGs. While the School’s strategic plan spells out a specific focus on SDG 3 (*Good Health and Wellbeing*), SDG 8 (*Decent Work and Economic Growth*), SDG 9 (*Industry, Innovation and Infrastructure*), SDG 11 (*Sustainable Cities and Communities*) and SDG 16 (*Peace, Justice and Strong Institutions*), we are in fact addressing many more, including the all-encompassing SDG 17 (*Partnership for the Goals*), with many teaching, research and engagement activities cross-cutting a number of the SDGs.

So, how is the School advancing this agenda? Guided by the University’s core values of respect, openness,

To begin 'walking the talk', the School recently funded a school-wide SDG mapping strategic project by Dr David Kreps and Dr Ann O'Brien, anchoring the SDGs in the consciousness of our School and making these goals a part of every activity.

sustainability and excellence, our strategic mission makes use of our role as a globally engaged school, "energised by our regional edge on the west coast of Ireland", to create and scale transformative impact towards the public good. Through this mission and its strategic alignment to the SDGs, we are pledging a strong commitment to create impact in our response to the SDGs, instilled with the distinctiveness of this School and its people. In doing so, we are educating, inspiring, shaping and building the change-making capacity of students — our future leaders.

As a signatory to the *UN Principles for Responsible Management Education (PRME)*, a platform for advancing responsible management education in business schools globally, the School is actively integrating the SDGs across our teaching, research and engagement activities. By embracing PRME's guiding principles for SDG integration, as well as an ongoing extensive School-wide SDG mapping strategic project, concrete actions are being taken to commit to this agenda. To begin "walking the talk," the School recently funded the SDG mapping project, led by Dr David Kreps and Dr Ann O'Brien, anchoring the SDGs in the consciousness of our School and making these goals a part of every activity. ►



In a recent showcase held as part of the University's SDG Week 2023, the School facilitated a forum connecting those with shared interest in the SDGs across academic disciplines, engaging staff, students and wider society. We now have evidence to demonstrate that the SDGs are providing a solid context and framework for such connection and agency. The showcased projects ([available here](#)), provide concise detail on the activities highlighted during the event and across this page.

Cementing SDGs into the Learning Experience

Appreciating the mindset and skillset shift necessary for a more sustainable and responsible economy, we are prioritising our teaching and learning for impact, aligned to our public good mission. Specifically, we are designing, re-designing, and in many modules, co-designing (with internal and external stakeholders) curricula, co-curricular and extra-curricular content that reflects changing societal values and the SDGs. Our MSc in Global Environmental Economics, our recently-developed MSc in Sustainability Leadership and MSc in Cybersecurity Risk Management signify that topics such as sustainability, social responsibility and ethics are moving from bolt-on topics, to integrated learning objectives across most taught modules and programmes, at both undergraduate and postgraduate levels. Other modules such as Megatrends, and Skills for Success, and initiatives like Leading Ireland's Future Together (LIFT), delivered to our undergraduates, and our community-based Tax Clinic, are serving to cement the SDGs into the DNA of our offerings. [PwC](#) partners with us to design and deliver some modules, and many other community partners, including [SCCUL social enterprise](#), [an Mheitheal Rothar](#) and [Chambers Ireland](#) are involved in mentoring our future leaders. These examples, among many others, are addressing a myriad of SDGs, most notably SDG 4 (*Quality Education*).

Robust Research and Credible Solutions

In terms of research, the School boasts a robust portfolio of partnerships, centres, contributions and engaged scholars which demonstrably address societal and environmental challenges with credible solutions. In deliberately broadening participation and dissemination of our research through events and workshops, we are enhancing the societal value of our scholarship in tangible and intangible ways. While many of the SDGs are being addressed, including agendas that have a powerful influence on public policy, we have solidified our contribution towards Responsible Digitalisation and Tech for Good in particular (speaking to SDGs 3, 8, 9, 11). Featuring strongly alongside this is our research on the Environment, Marine Climate, Biodiversity and the Circular Economy (addressing SDGs 6, 7, 12, 13, 14 and 15). Add to this the impactful research in Health and Ageing, Health Economics, Decent Work and Equality and Inclusion (SDGs 1, 2, 3, 5, 8, 9, 10, 11 and 16). In essence, we are addressing all SDGs in a concerted effort across the School.

As a living laboratory for innovative, timely, responsible and actionable ideas, our Business School is working to provide a space for dialogue and co-created value via a multi-stakeholder approach.

As a living laboratory for innovative, timely, responsible and actionable ideas, our Business School is working to provide a space for dialogue and co-created value via a multi-stakeholder approach. This means pursuing wider engagement beyond campus-based teaching and research. As an extended enterprise, we are engaging with local and global communities through outreach programmes; partnerships with non-profit organisations such as [Hygiene Hub](#), [ITAG](#) and [COPE Galway](#); public

engagement initiatives such as The People's Trial and student-led organisations such as ENACTUS.

In meaningfully contextualising the global challenges, our collaboration with diverse stakeholders is ensuring that the School is truly having impact for the public good. For continued impact, concrete change requires all hands on deck, where J.E. Cairnes School of Business and Economics continues to act as a steward for positive collective change.

Future Events

Thinking Beyond event series

brings together experts from a wide range of industry and academic thought leaders to share their insights and best practices to help businesses stay ahead of the curve and succeed in today's rapidly changing landscape.

Examples of past Thinking Beyond events:

- **Regional Business Summit: Engaging People and Leading on Sustainability**
- **Technology & The Future of Work**
- **Women in Technology: Past, Present and Future**

Dr Johanna Clancy is a lecturer in Business Enterprise at the J.E. Cairnes School of Business & Economics, and is Lead for the School's commitment to the United Nations' Principles for Responsible Management Education (PRME). In 2021, Johanna received the President's Award for Societal Impact, in recognition of her impactful external engagement, as well as her teaching and research interests, which reflect her passion for shaping the social consciousness of students.



Sustainable Galway, for a Sustainable World

Prof Pól Ó Dochartaigh,
MRIA, Deputy President and
Registrar, University of Galway

Sustainability is crucial for universities to fulfil their role as responsible institutes for the public good. Deputy President and Registrar, University of Galway, Prof Pól Ó Dochartaigh, reflects on our achievements and learnings thus far, as we embark on a transformative journey towards a sustainable Galway, for a sustainable world.

It is almost too obvious to say that sustainable living and sustainable development are critical not just to the survival of humankind but to the survival of the planet. We cannot continue to consume resources at the current rate. Yet sustainability is not only about survival, with all its apocalyptic overtones; at its core it is about championing respect. Respect for each other, respect for our environment, respect for diverse cultures, eliminating poverty and hunger, respecting human rights, including gender, racial and cultural equality, creating a clean environment in which all human beings can fulfil their potential. Critical to all of this is the fundamental element that is at the core of our own existence as an institution: excellent education, rooted in excellent research.

Many people in the humanities and in wider society, when they hear the word “sustainability” think of energy efficiency first and foremost. More miles to the gallon out of the car, or travel by train and bus, or switching off lighting and heating when they are not in use, or using the eco settings in washing machines. And that is not a bad starting point, but it is a limited one.

To be sure, energy efficiency is an essential component of sustainability, and it is an area in which University of Galway has made great strides for at least a couple of decades now. Over a ten year period when this university was putting up a significant number of new buildings, our footprint increased by 30% while our energy consumption dropped by 30% — the net effect being that we then progressed to using approximately half as much energy per square metre as before. That is a testament to the guiding design principles embraced by our Buildings and Estates teams under the leadership of former Director, John Gibney and others, continued today under Director Denis O’Connor and his team. Their successes and awards in this area attest to this truly outstanding work.

As a university we are much more than just an estate, however. We wrote back in 2017 in our inaugural sustainability strategy that: “Landscape, ecosystems and biodiversity are of significant environmental, economic, social and health value to students, staff and the wider community.” That holistic approach is essential, indeed existential. We take the UN SDGs and apply them to our teaching and learning, our research, our behaviours, our interactions and how we cultivate a biodiverse campus. ▶



We wrote in our inaugural 2017 sustainability strategy that: "Landscape, ecosystems and biodiversity are of significant environmental, economic, social and health value to students, staff and the wider community." That holistic approach is essential, indeed existential.



If we gain recognition and awards for our achievements, it is not because we seek “baubles” but because we seek continually to improve ourselves. Recognition sets examples, inspires others and motivates us to do more.



Outstanding research and teaching are what makes us a university, and sustainability and the full spectrum of the UN SDGs are part of our research and teaching. Their importance in both domains continues to grow. When I came to the university in 2014 I asked senior colleagues at an away day to identify any big challenge that they felt we needed to invest more effort and, pardon the pun, energy in. It was Professor in Earth and Ocean Sciences and then Director of the Ryan Institute Colin Brown who spoke the key word to me. I asked him to consult colleagues and come back with an initial plan for *sustainability*, which he did. It was clear that a lot of great work was already being done here, but needed pulling together in a strategic way. The CUSP was born, the Community and University Sustainability Programme, rooted in the commitment over and above the day job of academics, professional support staff and, crucially, students right across the University. We found funding for a Sustainability Officer, and Michelle O'Dowd Lohan has filled that role with aplomb since 2019, having spent five years with the University before that as a sustainability research associate. The work of the CUSP has been led by a committed group of work package leaders, going above and beyond their day jobs for years now. We needed to formalise support for them.

The first sustainability strategy, for the period 2017–20, had at its core a model that we call “Learn – Live – Lead”. Collaborating to expand our sustainable research footprint is one aspect, taking some of our inspiration from such outstanding projects as the Geec, the Galway Energy Efficient Car. As we research, we learn to live better. Our research informs our teaching; our students benefit. Our students can become the leaders of tomorrow.

We built on that inaugural strategy with a second strategy for the years 2021–25, planning for a Sustainability Office. This step allowed for a properly resourced team to influence the work, at an institutional leadership level, ensuring sustained support for the actions colleagues had already been undertaking for years. In developing the University Strategy for 2020–25 the students had been very vocal on the subject of sustainability and it became one of our four core pillars. When we then developed an academic strategy for the years 2021–26, we put sustainability in the curriculum at the heart of it. The path was clear.

We are setting ourselves ambitious targets in our Performance Agreement with the Higher Education Authority because we have a high target: that in a few short years' time, every single student graduating from University of Galway will have been confronted with diverse aspects of sustainability and the UN SDGs in their degrees.

We are building success in this space. In January 2024 a new Director of Sustainability, Dr Richard Manton, will join the University. He will lead an office that will include our Sustainability Officer, a new Sustainability Accountant and administrative support, working closely with two new lecturers in Sustainability and Education for Sustainable Development, based in the Centre for Excellence in Learning and Teaching (CELT), who will work with colleagues across the University to boost the presence of the SDGs in the curriculum.

We are setting ourselves ambitious targets in our Performance Agreement with the Higher Education Authority because we have a high aim: that in a few short years' time every single student graduating from University of Galway will have been confronted with diverse aspects of sustainability and the UN SDGs in their degrees. Galway graduates will have learned about sustainability, learned to live by it, and will go out to lead as global, responsible and inspiring citizens. That is where our sustainability journey is taking us. To the better of all.

Professor Pól Ó Dochartaigh is Deputy President and Registrar of the University. He is a member of the University Management Team, Academic Council and formerly of the University's Governing Authority, Údarás na hOllscoile Pól role includes responsibilities for academic strategy, academic promotions, and academic quality. A native of Belfast, Pól holds a BA (Hons) in German from the University of Wales (Cardiff) and a BA (Hons) in Irish from Ulster University, as well as a PhD and a DLitt in German from Nottingham University. He is a member of the Royal Irish Academy, a Fellow of the Royal Historical Society, a Fellow of the Higher Education Academy and a member of the Senate of the NUI. He has served as President of the Association for German Studies in Great Britain and Ireland (2011–14) and Chair of the Royal Irish Academy's Committee for Modern Language, Literary and Cultural Studies (2004–9), and Chair of the Board of the CAO (2018–22). Pól has worked on the legacy of the Holocaust, the German involvement in Celtic Studies and, more recently, on Jews in Irish literature and history. He has published five monographs, seven edited collections and over forty articles and chapters.

Shaping MedTech's Future

Gerard P Kilcommins,
Vice President, Global Platform Manufacturing
& Medtronic Ireland Country Director

Medtronic's Vice President of Global Platform Manufacturing & Medtronic Ireland Country Director, Gerry Kilcommins sits down with Cois Coiribe to discuss corporate responsibility in healthcare and sustainability, and the significance of the Medtronic–University of Galway partnership in cementing Galway's place at the epicenter of one of top world MedTech hubs.

Cois Coiribe: Talk us through an average week in your extensive role at Medtronic.

Gerry Kilcommins: There is no such thing as an average week in my role. I am responsible for 20+ manufacturing plants across the globe, from Mexico and the U.S., right through to Europe and Asia. Included in my brief is responsibility for plants in Shanghai, China — eight hours ahead of my base in Galway. So, I move across the time zones i.e. Tijuana, Mexico which is 8 hours behind and, as I said, Shanghai, China, which is 8 hours ahead. Travel is a big component of my job; I spend 50–60% of my time on the road.

I'm a great believer in problems getting solved at the right level. A key part of my job is to coach people, to help them be their best selves at what they do.

One thing that makes this partnership unique is that Medtronic has never done anything of this scale with academia in Ireland before. We know that Ireland is one of the top MedTech hubs in the world, and Galway is at the epicenter of that.

place, from weekly tactical meetings to quarterly strategic reviews. I also have regular one-to-one meetings with my global direct reports. I see this as a coaching and mentoring session because we get our work done through our people, and I'm a great believer in problems getting solved at the right level. My job isn't to give people the answers; sometimes I don't have them. My job is to coach people, to help them be their best selves at what they do and to ensure they have access to all the support mechanisms necessary to help them do their jobs successfully.



In a large company like Medtronic, structure is important. I have a strong team and robust operating mechanisms around me. Twice a week, I have escalation meetings with my team across the globe, where we address any burning issues impacting our ability to serve patients and customers. There are many other regular mechanisms in

CC: Congratulations on the recent Medtronic–University of Galway partnership. How will this partnership enhance the MedTech ecosystem in the Galway Region and beyond?

GK: Both organisations have had a strong relationship over the years, and this new partnership builds on



L-R: Laoise McNamara, Head of School of Engineering, University of Galway; Ciarán Ó hGartaigh, President, University of Galway; Gerry Kilcommins, VP Manufacturing Vascular & Ireland Country Director, Medtronic; Anne Grealish, Senior Strategy Programme Manager, Medtronic. Credit: Martina Regan.

that. One thing that makes this partnership unique is that Medtronic has never done anything of this scale with academia in Ireland before. We know that Ireland is one of the top MedTech hubs in the world, and Galway is at the epicenter of that. Galway is a vibrant mix of multinationals and startups. In fact, many startups here arise from talent that have come from multinationals with a new idea. We have a strong ecosystem of research centers and suppliers in Galway supporting MedTech. As part of the partnership, Medtronic's investment will enable significant expansion of the University's MedTech ecosystem, progressing its current range of STEM programs and supporting the establishment of two new institutes. The first is the new Institute for Clinical Trials and the second is the Health Innovation Institute.

In Ireland's MedTech ecosystem, we have a gap in clinical trials. This partnership adds that missing piece, not to mention the important translational piece. Translation is a process of taking an idea from the concept to the prototyping phase, right through to the product design

That process is important in ensuring that researchers are not simply coming up with ideas that may never materialise. These are a few of the factors that set this partnership apart from the others.

and clinical trial phase, and finally into a life-changing product or therapy. That process is important in ensuring that researchers are not simply coming up with ideas that may never materialise. These are a few of the factors that set this partnership apart from the others. Medtronic is committing €5M over the next five years to the partnership. University of Galway is recognised globally as a centre of excellence with state-of-the-art facilities, colleges and schools and students are leveraging Medtronic's skills and experience in the MedTech sector. Those [combined strengths] will accelerate research into [pivotal] treatments and interventions, serving patients all over the world.

People are living longer today because of advances in lifestyle, medicine and technology; this creates a greater demand for MedTech. We expect to see more healthcare innovation globally in the next ten years than we've seen in the last 100 years. This partnership puts us in a really good place to become a leader in that journey, driving innovation rather than watching on and playing catch up. I was asked recently, "Why Galway?" And my response was, "Why not Galway?" We have a strong and vibrant ecosystem here in Galway. I am a University of Galway graduate myself and many other graduates in Galway have gone on to forge successful careers not only in Medtronic Ireland, but in senior positions across the globe with international influence. University of Galway can certainly be proud of its contributions to MedTech both in Ireland and beyond. ▶

We expect to see more healthcare innovation globally in the next ten years than we've seen in the last 100 years. This partnership puts us in a really good place to become a leader in that journey, driving innovation rather than watching on and playing catch up.

For instance, Medtronic developed a very successful programme in conjunction with the University of Galway to address the lack of gender diversity in Engineering. At Medtronic Galway, we felt that we needed to put a scholarship in place to develop a more robust and diverse engineering talent pipeline. We needed to get better gender balance in our engineering ranks. To this end, we set a 50/50 gender split as a programme condition. University of Galway have been running this programme now for several years, addressing gender imbalance to great success, providing equal opportunity for all employees to advance their education and progress into technical roles. The programme always grabs the attention of our global site visitors; they are impressed by the tangible results achieved in partnership with the university.

CC: Medtronic in Ireland develops and manufactures products, including products for coronary arteries and peripheral vascular disease, heart arrhythmia and pacing, hypertension and spinal injury. How has Medtronic in Parkmore evolved over the years to become a strategic global Manufacturing Technology & Innovation Centre for the company?

GK: We started out as CR Bard in 1982 so new have had roots in Ireland for over 41 years. We became part of Medtronic 24 years ago via acquisition. Galway is recognized as one of the top

Medtech hubs in the world and I like to think that we, and the work we have been doing over the past 41 years, have played a big part in the evolution.

The company started out in Parkmore as a basic manufacturing plant, with 30 employees working on lower tech diagnostic catheters. The company has since grown to five locations across Ireland with circa 5,000 people employed and now has a high-tech manufacturing and R&D presence (the latter carrying out innovative research and development). Medtronic has evolved from a medical device manufacturer to the world's largest healthcare technology company. That growth came about through a combination of organic growth, innovation and R&D, alongside significant M&A (mergers and acquisitions). In 2015, Medtronic acquired another large medical technology company called Covidien. With that acquisition, Medtronic expanded into new MedTech spaces, doubling in size from 45,000 people to 95,000 people. This acquisition saw us become the world's largest medical technology company. We continue to grow organically too, developing our own products and therapies in house.

With the 2015 Covidien acquisition, Medtronic expanded into new MedTech spaces, practically doubling in size from 45,000 people globally to 95,000 people. This acquisition saw Medtronic become the world's largest medical technology company.

CC: Medtronic was recently named as a leading Sustainability Company. How has Medtronic embedded ESG (environmental, social and corporate governance) in its vision?

GK: In terms of sustainability, Medtronic takes our corporate responsibilities very seriously – responsibilities to our customers and patients but also, to our environment. We have set aggressive goals at both corporate and plant levels, including at Parkmore Galway. Sustainability for Medtronic means looking at the materials used in our products, our packaging right throughout our supply chain and also the running of our plants. For example, in summer 2023, we replaced all our gas boilers in Parkmore with heat pump technology. We have installed solar panels and LED lighting and removed 97% of our site emissions. We plan to remove the remaining 3% during the Christmas shutdown period (2023/4). Certainly, I see Parkmore as a role model for other plants in terms of sustainability. We are on an important journey with much left to do; as a company we have specific sustainability goals set for 2030 and 2040 that we are committed to achieving.

CC: You graduated with a BTech degree from the University of Galway. Did your passion for medical technology start as a student?

GK: I attended St Mary's College as a boarder in Galway City and graduated with a BTech degree from University of Galway. What I liked about that degree was the combination of theoretical and practical elements. I was always interested in engineering; I grew up on a farm, so I was exposed from an early age to tractors and machinery. After graduating, one of my first jobs was in a small healthcare company in Shannon, County Clare, with 50 employees. They manufactured electro-mechanical equipment such as incubators for prematurely born babies, phototherapy units and blood drainage pumps. So, that was my introduction to healthcare.

In Medtronic, we are proud of the fact that every second, the lives of two people are saved, improved or enhanced by our products and therapies. In this short 30-minute interview, thousands of patients across the world have seen their lives positively impacted by what we do.

I was the only mechanical/production engineer in that plant in Shannon and it was a great learning curve; I was thrown into the deep end. I then moved on to a global medical technology company called Becton Dickinson before an opportunity came up with CR Bard in Galway. Therapeutic angioplasty balloon catheters were taking off as a treatment for blocked coronary arteries in the heart at the time, and I was asked to relocate for a year to Boston, USA to learn about the design and manufacturing of angioplasty balloon catheters. I returned to Ireland to bring that learning to bear in setting up manufacturing capability for angioplasty balloon catheters in a second plant at Parkmore, Galway. My passion for healthcare grew as I began to appreciate the positive impact our products were having for patients all over the world. In Medtronic, we are incredibly proud of the fact that every second, the lives of two people around the world are saved or improved by our products and therapies. In this short 30-minute interview, thousands of patients across the world have been positively impacted by what we do. That's a phenomenal fact when you sit back and think about it.

CC: Are there any recent innovations that have created significant impact?

GK: Though not a recent innovation, the coronary stent, particularly the drug-eluting stent (DES), has had a huge impact on

cardiovascular disease worldwide. Heart disease is a massive issue worldwide and the usual outcome in the past was either death or serious open-heart surgery. This tiny implant, inserted into the heart to keep the blood flowing, has transformed the treatment of heart disease. The stent is a key part of our product portfolio in Parkmore.

The other one that comes to mind is a new hypertension (high blood pressure) treatment system. Medtronic has spent the past 12 years developing this therapy, and received FDA clearance (U.S. Food and Drug Administration) in mid-November, 2023. To give some context, there are one billion people worldwide suffering from hypertension. Hypertension is one of world's biggest healthcare issues, and can lead to heart attack, stroke and death. Despite available medications and lifestyle interventions, control rates remain low. Medtronic strongly believes that patients will benefit from this alternative treatment option to better manage their blood pressure.

The Medtronic Symplicity Spyral Renal Denervation (RDN) system is an innovative minimally invasive procedure that delivers radiofrequency energy to nerves near the kidneys that can become overactive and contribute to high blood pressure. After sedation, the physician inserts a single catheter device into the artery leading to the kidney. Once the catheter is in place, the physician administers energy to the system to calm the excessive activity of the nerves connected to the kidney. The catheter is then removed, leaving no implant behind. It is a safe and effective procedure and Medtronic believes this could be a landmark therapy introduction to the blood pressure management landscape. The device is manufactured at Parkmore, Galway where development on next generation versions is also carried out.

The other product that comes to mind is a recently FDA-approved hypertension (high blood pressure) treatment system. We manufacture this product in Parkmore, Galway and I look forward to seeing this becoming a major transformative therapy for healthcare in the near future.

Gerry Kilcommins is the Vice President Global Platform Manufacturing at Medtronic. He holds overall responsibility for manufacturing plants in the US, Mexico, Europe and Asia. Canada, Ireland, France, the Netherlands and Vietnam. Gerry is also the Country Director for Medtronic Manufacturing Ireland where the company is headquartered. Gerry has held various Engineering and Operations leadership roles since joining Medtronic, including that in the past of General Manager of the Medtronic Manufacturing, Technology & Innovation Centre (MTIC) in Parkmore. A University of Galway graduate, Gerry was recognised with a Medtronic Wallin Leadership award in 2008.

In the News

June

15/06: Minister for Further and Higher Education, Research, Innovation and Science Simon Harris T.D. officially launched University of Galway's Active* Consent programme 2023–27.

21/06: Government approves three new healthcare degrees with a specific focus on community-based care and addressing workforce needs in rural and regional areas.



23/06: University hosts the Government's Consultative Forum on International Security Policy.



26/06: University announced as lead for a new European consortium developing treatments for rare eye diseases.

28/06: Limiting access to international protection puts people at risk of trafficking, a report by the UN Special Rapporteur finds on trafficking in persons, especially women and children, Professor Siobhán Mullally, Director of the Irish Centre for Human Rights at the School of Law.

July

03/07: ENLIGHT University Alliance awarded €14.4m in funding over next four years by the European Commission.

04/07: A new report by the International Organization for Migration in collaboration with the Ryan Institute at the University of Galway finds that the increasing frequency and severity of extreme storms, flooding and sea level rise means that some communities in Ireland are becoming increasingly vulnerable to climate change, due to much of the population residing in coastal zones.

26/07: As the 45th annual Galway International Arts Festival gets underway, a new five-year education partnership is announced with University of Galway.

August



02/08: University receives planning approval for a new library to be known as the Learning Commons.

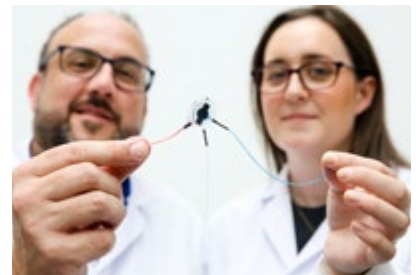


22/08: Professor Martin O'Halloran awarded European Research Council funding for project to reduce side effects of chemotherapy.



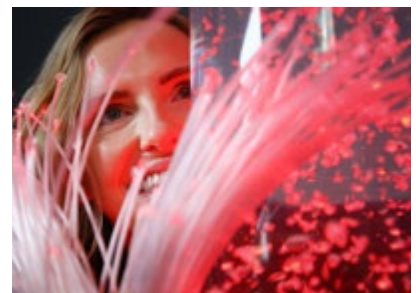
28/08: An international research team, led by University of Galway, reveals previously unrealised health and climate impacts from the use of domestic firefighters.

29/08: New study looks at teacher perpetrated sexual misconduct in post-primary schools in Ireland and the UK.



30/08: University of Galway and MIT researchers pioneer a new AI enabled soft robotic implant which can monitor scar tissue to self-adapt for personalised drug treatment.

September

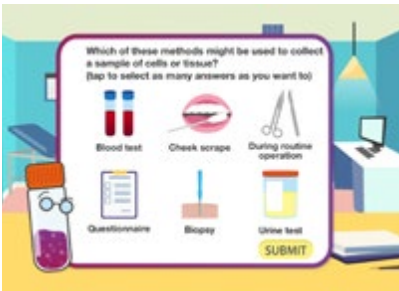


05/09: A new Multi-Sensory Room opens to make the campus more inclusive and sensory-friendly.



12/09: University campus praised for the standards of cleanliness and upkeep as part of the Irish Business Against Litter survey.

18/09: University hosts its first Sustainable Development Goals Week.



18/09: Researchers have developed a new interactive game to explain to cancer patients how they can contribute to life-saving research, in an initiative from University of Galway and Saolta University Health Care Group, supported by the National Breast Cancer Research Institute.

20/09: University ranked in Top 100 and in Top 50 for Sustainability in the inaugural QS European Rankings.



22/09: University of Galway officially launched its newest research unit, the Centre for Creative Technologies to foster and support research and teaching activities that explore and develop links between creative practice and technology.

25/09: University of Galway awarded a special €1.3million fund by the Higher Education Authority in respect of efforts to develop research, education and awareness around consent, following a submission of a case study which outlines the pioneering and innovative work of the Active* Consent programme.

October



02/10: University announces a new partnership with the National Breast Cancer Research Institute with the charity committing a €2 million research investment fund over two years.



03/10: New study alleviates concerns over metformin drug used in gestational diabetes treatment.

17/10: University of Galway and Medtronic announce a five-year €5 million signature innovation partnership focused on three pillars: developing the MedTech ecosystem, STEM and research.



24/10: University of Galway and Atlantic Technological University (Galway) have come together with the Mayor of the City of Galway and the Galway Chamber to announce and sign the Greater Galway Charter.



25/10: Professor Peter McHugh appointed the next Deputy President and Registrar.

November

06/11: Cnuasach digitithe d'íomhánna ó chartlann Chonradh na Gaeilge curtha ar fáil ag Ollscoil na Gaillimhe / University unveils digitised collection of images from Conradh na Gaeilge archive.



06/11: Minister Hildegard Naughton launches University of Galway Tax Clinic.



07/11: University launches its first Race Equality Framework and Action Plan.

13/11: 2023 annual Remote Working Survey finds remote working opportunities strongly impact employment decision-making. ▶



27/11: University of Galway and Galway Simon Community have come together with filmmakers to produce a new film capturing the experience of homelessness from the experience of those who have lived it. Pictured are Mayor of the City of Galway, Councillor Eddie Hoare with Director of the Centre for Creative Technologies at University of Galway Conn Holohan at the launch of Lost & Found. Credit: Sean Lydon.



29/11: University of Galway joins Ireland-UK research collaborations on climate and food sustainability. Pictured is Prof Charlie Spillane (back row, right), the Director of the Ryan Institute, a key research partner in the Climate+ Co-Centre with the University of Galway delegation attending COP28 Global Climate Summit in Dubai.



06/12: Government Chief Whip and Minister of State for Public Health and Wellbeing and the National Drugs Strategy, Hildegarde Naughton T.D. launches free virtual reality (VR) learning system for nursing education, pioneered by University of Galway.



07/12: University of Galway wins the Best Technological or Digital Innovation of the Year 2023 at the Times Higher Education Awards. CARA is an AI-powered virtual assistant for students, developed in partnership with Galvia AI. Pictured are University of Galway's Josephine Walsh, Head of Student Engagement Projects; Bríd Seoige, Head of Content; Paul Stapleton, Systems Support Coordinator and John Clancy, CEO Galvia.



11/12: Tommy Donohue and his father Alan from Ballybrit, Galway visit the Sensory Santa event at University of Galway, which offers children with additional needs, and their families, a free opportunity to enjoy a visit to Father Christmas at a specially created grotto, organised by University's School of Psychology.



11/12: Minister for Further and Higher Education, Research, Innovation and Science, Simon Harris T.D. with University of Galway students (from left) Anna Foley, Grace O'Mahony, Holly Macken and Liam Kelleher at the official opening of the new Baile na Breacóige – Dunlin Village on-campus student residence at University of Galway.

A Year in Sports



Jill McGettigan who has been selected to represent University of Galway and Ireland at the Student Rider Nations Cup World finals in France. Jill has already proven very successful in these competitions achieving an individual gold medal for Ireland at the Student Rider Nations Cup Sweden in August 2023.



The outcomes of the 2023 Sailing League were determined with the University of Galway Alumni Team clinching the top spot, followed by the University of Galway Gold Fleet in second place, and the University of Galway Silver Fleet securing the third position.





Kayak CLUB who took part in Coldvember 2023



The Kayak Club showcased an outstanding performance, highlighted by the remarkable achievement of our former club captain, Laoise Plunket, securing the 1st place in the women's Boater X competition. University of Galway has been selected to host the upcoming Intersvarsities in early 2024.



In the Xtreme Pantin European Championships, Megan Gamble, one of our esteemed club and committee members serving as the Safety Officer, secured an impressive 2nd place in Surf Kayaking. Megan exhibited exceptional skill and dedication while representing the Irish Team in September 2023. With plans to compete again next year, her achievements contribute significantly to our club's success in the realm of extreme kayaking.



The Men's Gaelic Football team achieved a historic victory by winning the Division 1 League for the first time since 1979. Photo L-R Coach Maurice Sheridan with Ryan O'Donoghue, Tommy Conroy, Conor Dunleavy and Cillian Goulding after the Electric Ireland Higher Education Division 1 Football League final victory. Picture: Mayo GAA





On November 29th 2023, the Women's Soccer team achieved a historic milestone by being crowned Premier Division League champions. They secured the title with a 2-1 victory over Ulster University in the final, which took place at Athlone Town Stadium.



The second leg of the ISAA Indoor League on November 25th 2023, University of Galway Archery Club continued its impressive performance with 27 archers. Notable achievements included Aaron Burke securing the top position in Recurve Advanced Open, Dominik Pazdan claiming the top spot in Recurve Beginner Open, Kate Grehan achieving the 2nd position in Recurve Beginner Female, Eveline Nee taking 1st place in Compound Female, and Natalie Cheng emerging victorious in Barebow Beginner Female.



Fiona Everard, performed exceptionally well at the recent National Cross-Country Championships in Gowran, Co. Kilkenny, taking the Senior Women's title. Fiona will travel to Brussels with the Irish team to compete in the European Cross-Country Championships in December 2023. Best of luck to Fiona and the Irish Team.



Women's Climbing Nights: Throughout this semester, the mountaineering club organised four dedicated women's climbing nights to foster greater participation among female climbers.



To finish off 2023 year of hiking the club completed the annual ascent of Mweelrea. As Connaught's tallest mountain (814m), the hike is always a challenge. Both the Intermediate group and the beginner group of hikers, led by our hike leads made it to the summit and capping off a semester of great hiking.



Brian Colsh winning a gold medal in the World U23 competition. Congratulations to Brian Colsh on this significant accomplishment!



The University of Galway Men's Volleyball team won the Varsity competition and securing the opportunity to represent University of Galway in an international competition in the UK. Congratulations to the University of Galway's Volleyball team for their impressive achievements!



The Judo Club won 3 gold medals, 3 silver medals, and 1 bronze medal at the Connacht Judo Championships on Saturday, October 20. Congratulations.



Photographed at the National Age Grade Championships on October 23rd 2023, the Weightlifting club is pictured alongside Coach Aleks Kosnik. Additionally, last year's Club Captain, Yan Leydon, is captured representing Ireland at the Celtic Nations Weightlifting Championship.



Team successes — University of Galway Mystics secure their first win this season against Portlaoise Panthers by 75–61. Congratulations to our Basketball Team.



Kara McCleane who was presented her game jersey by Ireland captain Edel Thornton and on-court captain Claire Melia.



Liam Nolan displayed exceptional skill and determination, emerging victorious in two matches during the Walker Cup. Representing University of Galway Golf Club, Nolan played a crucial role at the Old Course in St Andrews, making him the first golfer from a Galway club to participate in this prestigious amateur team competition.



The University of Galway Taekwondo Team students, Vickie Popoola, Sapphire Guilfoyle, Admir Music and Aoife McKeagney played in the World Championships in Birmingham July 2023, winning three silver medals, Admir Music and Aoife McKeagney won silver in patterns and Vickie Popoola won silver in sparring. Huge congratulations to the team.



Pictured with the Irish flag is Giulia Comini where She participated in the Unified World Championships held in Carrara, Italy. Giulia secured 4 gold medals in low kick light -60kg, K1 light -60kg, low kick light -65kg, and K1 light -65kg. She also won a bronze medal in K1 full contact -60kg. Giulia engaged in 7 fights and emerging victorious in 6 of them. Congratulations to Giulia Comini on her impressive performance at the Unified World Championships.

Alumni Events

Galway International Arts Festival Saw Doctors Alumni Event

Over 250 alumni and friends attended our *Galway International Arts Festival Saw Doctors Alumni Event* on Saturday, 29 July in Galway Rowing Club. It was a terrific opportunity for University of Galway alumni and friends to meet and socialise before heading to the Heineken Big Top for the Saw Doctors concert.



Miriam Conroy, Michelle Coen and Anne O'Connor, Salthill, pictured at the University of Galway Alumni Event during the Galway International Arts Festival.



Patricia and Oliver Deveney, Maree, Oranmore, pictured at the University of Galway Alumni Event during the Galway International Arts Festival.



Emily and Carmel McNamara, Tuam, pictured at the University of Galway Alumni Event during the Galway International Arts Festival.



Nicola Kilgarriff, Dunmore, and Shane Martin.



Anna Gonzalez and Alumni Award Winner, Gráinne McMorrow.



Edel Browne, Athenry, and Alan Henry, Ballinasloe.



James Barry and Aoife Ní Fhlathartha, Salthill.



Éanna and Christina Maher, Kinvara, Vivian, John and Fiona Doherty, Donegal.

Civil and Environmental Engineering Class Reunion

The *Civil and Environmental Engineering Class of 2003* gathered to reconnect and reminisce in November to celebrate their 20th anniversary since graduation. They enjoyed a journey down memory lane on campus, paired with a showcase of our progress from Prof Laoise McNamara featuring our advanced education programmes and modern facilities in the Alice Perry Engineering building. We showcased our latest research, from heavy structures to sustainable energy innovations, giving the class an inside look at how University of Galway is shaping the future.



Civil Engineering and Environmental Engineering Class of 2003 Reunion.



The group visits the Alice Perry Engineering Building.



Giving the class an inside look at how University of Galway is shaping the future.



Reunion of the Civil Engineering and Environmental Engineering Class of 2003, gathered on the bench dedicated to their close friend and fellow graduate, Aidan Frawley, BE 2003.

University of Galway Alumni Reunions

University of Galway alumni from the graduating classes of 1983, 1993, 1998 and 2003 returned to their Alma Mater on Saturday, 2 September to celebrate their 20th, 25th, 30th or 40th graduation anniversaries.

Guided tours of the campus were held for graduates who had not been back at the University in recent years. After the campus tours, graduates gathered at Sult College Bar for a BBQ followed by an evening of chat, reminiscence and music.



Martina McIntyre, Patricia Mulligan, Anne Mannion, Anthony Shannon – BComm 1983.



Geraldine Griffin Doogan, Colette Cunningham, John Fahy – BComm 1983.



Kevin Whooley, Niall Mithcell, Raymond McGowan, Kenneth Morley – BE 1998.



Laura Browne Clarke – BComm 1983, Geraldine Robbins – MBA 1992.



Claire Brosnan, Deborah Briggs, Elaine O'Connell O'Loughlin, Sarah McManus – BSc 2003.

Pursuing Sporting Excellence: Insights on Success and Leadership

We were joined in the iconic Aviva Stadium on Tuesday, 28 November for what was a hugely stimulating evening featuring a host of University of Galway alumni — Kevin McStay, Heather Boyle, Yvonne Comer, MBA and Feargal O’Callaghan with RTÉ’s Damian Lawlor. This event explored the strategies, leadership qualities, and personal journeys that drive excellence in the world of sports and sports management. The event was facilitated by Martin Murphy (BA 1980), former Aviva Stadium Director and was kindly supported by Unipharm. MC for the event was Damian Lawlor (MA 2003), RTE journalist and broadcaster.



Dr Paul Dodd, VP Engagement, University of Galway, Damian Lawlor, RTÉ, Julie Stafford, University of Galway and Sean O'Rourke (University of Galway Alumni).



Kevin McStay, Heather Boyle, Damian Lawlor, Yvonne Comer and Fergal O'Callaghan.



Paul Dodd, Martin Hogan, Sean O'Rourke and Damian Lawlor.



Kevin McStay, Fergal O'Callaghan, Heather Boyle and Yvonne Comer during the panel discussion.

The panellists were:

Heather Boyle (BA 1998), former international rower and cyclist, communications, PR and athletes' commission lead, Olympic Federation of Ireland.

Yvonne Comer (MBA 2019) former rugby international, Connacht representative to the IRFU and CEO & Co-Founder at RugbySmarts.

Kevin McStay (MA NUIM), former Mayo player and all-star, current Mayo manager, former RTE Media specialist and Irish Times columnist.

Feargal O'Callaghan (MBA 2022) high performance sports lead, University of Galway, team manager, Rowing Ireland, Tokyo Olympics and athletics performance coach, Munster Rugby 1999–2019.

Medtronic—University of Galway Partnership

University of Galway and Medtronic announce €5 million signature innovation partnership to advance healthcare technology at a special event at National University of Ireland in Dublin and the Regional Launch at University of Galway.



Tom Shiel, Director of Operations, Medtronic Vascular; Alma Curran, Director of Government Affairs, Medtronic; Julie Stafford, Director of Development, Community and Alumni Relations; Eamonn O’Cuiv, Senator, Galway West; Ciarán Ó hÓgartaigh, University of Galway President; Anne Grealish, Senior Strategy Programme Manager, Medtronic; Laoise McNamara, Head of School of Engineering, University of Galway; Ronan Rogers, Senior R&D Director, Medtronic. Credit: Martina Regan.



Kristin Anderson, Project Manager and Aoife O’Connell, student volunteer, University of Galway Cell Explorers with Geoff Martha, CEO, Medtronic. Credit: Julien Behal



Ciarán Ó hÓgartaigh; Simon Harris TD, Minister for Further & Higher Education, Research, Innovation & Science of Ireland; Geoff Martha; & Hildegard Naughton T.D, Government Chief Whip and Minister of State with responsibility for Public Health, Well Being & the National Drugs Strategy. Credit: Julien Behal.



Kristin Anderson, Project Manager and student volunteers, University of Galway Cell Explorers. Credit: Martina Regan



Garry Duffy, Professor of Anatomy & Regenerative Medicine at University of Galway; Ann Ryan, Director of Strategic Development at University of Galway; Geoff Marthas, CEO and Chairman of the Board, Medtronic; Laoise McNamara, Head of School of Engineering, University of Galway; Martin O'Donnell, Executive Dean of College of Medicine, Nursing & Health Sciences, University of Galway; Ronan Rogers, Medtronic. Credit: Julien Behal.

Laura Mauri, Senior Vice President, Chief Scientific, Medical, & Regulatory Officer at Medtronic; Pádraig Ó Céidigh; Ciarán Ó hOgartaigh, University of Galway President; Geoff Marthas, CEO, Medtronic; Torod B. Neptune, Senior VP & Chief Communications Officer, Medtronic; Gerry Kilcommins, VP Manufacturing Vascular & Ireland Country Director, Medtronic. Credit: Julien Behal.



Ricky Conneely, Regional Manager, West Region, IDA Ireland; Martina Ní Chúlain, Director of Strategic Development & Process Improvement, College of Medicine, Nursing and Health Sciences, University of Galway; Mary Dempsey, Vice Dean for Equity, Diversity and Inclusion, College of Science and Engineering, University of Galway; Gerry Kilcommins, VP Manufacturing Vascular & Ireland Country Director, Medtronic; Alma Curran, Director of Government Affairs, Medtronic. Credit: Martina Regan.

Martin O'Donnell, Executive Dean of College of Medicine, Nursing & Health Sciences, University of Galway; Laoise McNamara, Head of School of Engineering, University of Galway; Anne Grealish, Senior Strategy Programme Manager, Medtronic; Ronan Rogers, Senior R&D Director, Medtronic; Paul Dodd, Vice President for Engagement, University of Galway. Credit: Martina Regan

Honouring University of Galway's Changemakers

Images by Andrew Downes/Xposure.

University of Galway awarded the recipients of Honorary Degrees at the 2023 Winter Conferring ceremonies — Frankie Gavin, Mary Warde Moriarty, Hugh Logue, Professor Peter Piot, Alan Esslemont, Eva Bourke, Patricia Forde, Miriam Hand and Lourda McHugh, Neil Johnson and Marie Reddan

The celebrations take place from Wednesday 22 November to Wednesday 29 November, and the Honorary Degree awardees will join more than 3,000 students graduating over the six days.

Those being recognised by University of Galway with Honorary Degrees at the 2023 Winter Conferring span the worlds of civil rights, human rights, media, music, the arts, medicine, philanthropy and academia.



Frankie Gavin (Doctor of Music (DMus)): Regarded as one of the world's greatest fiddle players, Galway's Frankie Gavin is a multi-instrumentalist and composer who has played nationally and internationally for over six decades. He was awarded the TG4 Gradam Ceoil Musician of the Year title in 2018.



Mary Warde Moriarty (Doctor of Laws (LLD)): A Traveller, human rights activist and author, who has worked tirelessly for nearly 50 years to advance Traveller human rights and build bridges between the settled and Traveller communities in Ireland. Co-founder of the first Tuam Traveller Support Group established in 1984, Mary was President of the European Centre for Irish Travellers and led the development of a library dedicated to the history and origins of Irish Travellers. Co-founder of the National Council for the Travelling People, the National Federation of Irish Travellers and the National Association of Travellers' Centres, she was a co-founder of INVOLVE, the largest provider of Youth Services to young Travellers.



Eva Bourke (Doctor of Literature (DLitt)): Highly regarded poet & author of seven collections of poetry in English, editor of three volumes of poetry and prose in English and translator of two volumes of Irish poetry into German; Eva is a major figure in contemporary Irish literature and a member of Aosdána.



Hugh Logue (Doctor of Laws (LLD)): Hugh first came to prominence as a civil rights leader in the late 60s, serving as a member of the executive of the Northern Ireland Civil Rights Association and as Vice-chair of the North Derry Civil Rights Association. A founder member of the SDLP, he was elected to the Stormont Assembly for that party in 1973, 1975 and 1981. He joined the European Commission and served in Brussels for the following 20 years as a senior Commission official. In this capacity he played a crucial role in the European Union's contribution to the Northern Ireland peace process and to the Good Friday Agreement.



Alan Esslemont (Dochtúir Litríochta (DLitt)): Rugadh Ard-stiúrthóir TG4 in Albain agus d'oibrigh sé sa Fhrainc, san Eilvéis agus ar an Eilean Sgitheanach. D'oibrigh sé san ollscoil anseo, le Telegael, Teilifís na Gaeilge, agus TG4. Bhí sé ina chomhalta boird bunaidh agus ina chisteoir ar Acadamh Scannán agus Teilifíse na hÉireann agus tugann sé an-tacaíocht do phleanáil teanga agus d'ábhar Gaeilge a chur ar fáil do TG4.



Professor Peter Piot (Doctor of Medicine (DMed)): In 1976, Professor Piot co-discovered the Ebola virus in Zaire while working at the Institute of Tropical Medicine in Antwerp, Belgium, and led research on HIV/AIDS, sexually transmitted diseases and women's health, mostly in sub-Saharan Africa. He has worked in Europe, Africa and the US and was founding Executive Director of UNAIDS and Under Secretary-General of the United Nations from 1995 until 2008, and was an Associate Director of the Global Programme on AIDS of WHO. He is a recipient of numerous scientific and civic awards and humanitarian medals and has published over 600 scientific articles and 17 books.



Neil Johnson (Doctor of Laws (LLD)): Neil is the CEO of Croí (Galway's charity for cardiovascular health), a graduate of University of Galway, an Honorary Clinical Fellow in the School of Medicine since 2015 and recipient of both Galway and Rehab 'People of the Year' awards. Neil has overseen foundation, growth and development of significant projects in cardiovascular health promotion, executed several multi-million euro fundraising initiatives and the construction of the Croí Heart and Stroke Centre Building in Newcastle.



Patricia Forde (Doctor of Arts (DArts)): A graduate of our university, bilingual from an early age, Patricia joined An Taibhdhearc at the age of ten as an actor and later directed plays there. Founder of Galway's Babaró International Arts Festival for Children in 1996 and one of the early members of Macnas, she spent a period as Director of Galway International Arts Festival in the early 1990s and was former chair of Children's Books Ireland.



Marie Reddan (Doctor of Education (DEd)): Retired Librarian of James Hardiman Library. Marie contributed much to the life, wealth and success of the Hardiman as a national and international centre of excellence. Marie played a leading role in the reimagining of the Library in its transition from print to the digital age, and in the archival activities of the library. Co-founder of IReL consortium of Irish Research Libraries.



Lourda McHugh and Miriam Hand (Doctor of Laws (LLD)): Miriam and Lourda are recognised for their advocacy, leadership and steadfast commitment to raising funds for breast cancer research through community partnerships and sporting organisations. Long-time board members of the National Breast Cancer Research Institute supporting the development of research facilities at University of Galway, they established research and academic appointments, and graduate scholarships resulting in academic impact and cancer research advances.



Thank you

Our heartfelt thanks to our alumni and donors whose enduring commitment to our students, our researchers and our campus is reflected in their continued support. 2023 has been an extraordinary year for all of us, particularly our students and the support of our donors has deeply enriched their scholarly experience through bursaries and scholarships as well as enhanced facilities and new programmes.

Acknowledgements

We would like to thank our generous contributors from the University community and alumni network who brought this publication to life with their unique views and insights. *Cois Coiribe Winter 23/24* was produced and edited by an in-house Content Team at University of Galway.

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