



# 2023



# 2023 SUSTAINABILITY HIGHLIGHTS

UCC RANKED

# #58

globally in the  
Times Higher  
Education Impact  
Rankings for the  
SDGs



## DISPOSABLE COFFEE CUP BAN



Over 1.5 million cups  
diverted from landfill in  
2023 alone!



# 4

new  
demonstration  
projects and 1  
MSc project  
funded by the  
Living Lab  
Programme



New *UCC Sustainability  
and Climate Action Plan  
(2023-2028)* launched

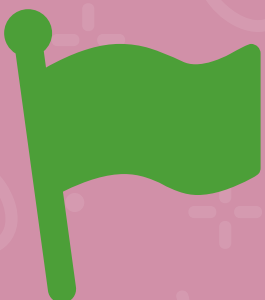
Global Sustainability  
Institution of the  
Year  
- International Green  
Gown Awards



UCC PLACED

# #6

in the UI Green Metric  
World University  
Ranking



ACHIEVED THE

# 5TH RENEWAL

of our FEE Green Flag







This report was compiled by Dr Maria Kirrane and Daniel Carr (UCC Office of Sustainability and Climate Action). Any queries concerning the content of this report can be directed to Dr Kirrane ([m.kirrane@ucc.ie](mailto:m.kirrane@ucc.ie)).

The report was prepared on behalf of the ULT Subcommittee for Sustainability and Climate Action (chaired by President John O'Halloran) and UCC Green Forum (co-chaired by President John O'Halloran and Mark Poland).

Further information and past years' reports (incl. annual reports, FEE Green Flag Resassessments, AASHE STARS reports) can be found at the [UCC Office of Sustainability and Climate Action](#) and [UCC Green Campus](#) websites.

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# FOREWORD

It is our pleasure to present UCC’s Annual Sustainability Report for 2023. This report represents a whole-institution assessment of our impact across each of the 17 SDGs and our four main pillars of activity i.e. research, learning, engagement and operations. It highlights the diversity of activity across our University and a world-class trans-disciplinary approach which has nurtured a culture of sustainability throughout the organisation.

2023 was a significant year for our University. In February, our Strategic Plan “Securing our Future” reflecting our commitment to a sustainable future for people, planet and university. Our Sustainability and Climate Action Plan was launched in June 2023, committing the University to being Net Zero Carbon across all scopes by 2040.

2023 also marked the midway point in the lifetime of the Sustainable Development Goals; unfortunately it is widely accepted that both nationally and globally we are not on track to meet their ambitious targets.

UCC, through its co-hosting of SDSN Ireland, which was launched in February 2023, has also committed to leading and facilitating this societal transition through collaboration and innovation. We are grateful to our key partners in this endeavor, in particular Queen’s University Belfast.

2023 saw UCC ranked 6th in the UI Green Metric Ranking and 58th in the Times Higher Education Impact Ranking. In July, the University was named “Sustainability Institution of the Year” at the International Green Gown Awards in association with UN Environment Programme and Allianz Global Investors.





# FOREWORD

Our students remain at the heart of our Green Campus success. 2023 also marked the launch of our Green Shoots programme, which aims to engage UCC students in sustainability and climate action projects in a more meaningful and supportive manner.

Meanwhile our staff continue to lead out on innovative and impactful projects. UCC was the only public sector body to develop and deliver our own Climate Leadership Training for the University's Leadership team. The training drew on the extensive climate science expertise within MaREI to scope out even more ambitious actions for the University to consider beyond 2030.



**Dr Maria Kirrane**

Head of Sustainability and Climate Action Office, UCC

“Our successes in UCC's sustainability journey reflect our whole of university approach that embeds sustainability across our core activities in research, operations, learning and engagement.”



**Professor Brian O'Gallachoir**

Associate VP for Sustainability, UCC

“Our accolades are the culmination of decades of hard work and commitment from our staff, students, and partners.”



**Professor John O'Halloran**

President, UCC



# SUSTAINABILITY AT UCC



Sustainability is deeply embedded in UCC, across the University's research, learning, engagement and operational activities. At a strategic level, sustainability is one of five goals in 'Securing Our Future', [UCC's Strategic Plan to 2028](#).

Concurrently, [UCC's Sustainability and Climate Action Plan \(2023-2028\)](#) elaborates on UCC's vision and goals to continue incorporating sustainability into all aspects of university life. The plan's aims are for UCC to be a:



*Net Zero Carbon  
Campus by 2040*

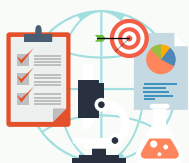


*Zero Waste  
Campus by 2030*



*STARS Platinum  
Institution in 2028*

The plan contains **62 actions** across **9 themes**:



**Research**



**Learning and  
Teaching**



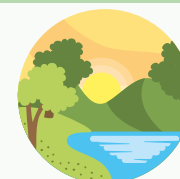
**Climate  
Action**



**Sustainability  
Citizenship**



**Food, Health and  
Wellbeing**



**Landscape,  
Heritage and  
Natural Resources**



**Waste Reduction and  
Circular Economy**



**Procurement and  
Contracts**



**Commuting and  
Active Travel**

# MISSION



# UCC

University College Cork, Ireland  
Coláiste na hOllscoile Corcaigh



## GREEN CAMPUS

“

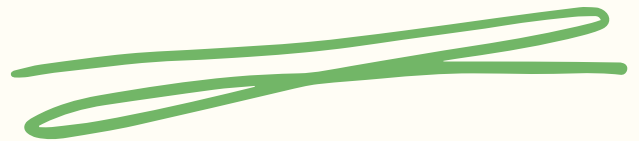
### VISION

*To be a globally leading university for sustainability impact and drive the agenda towards net zero through our world leading research, demonstration of best practice on campus, and education of current and future leaders and decision makers.*

## SUSTAINABILITY AT UCC



- To be an overall **positive force** in the journey towards creating a sustainable world for all.
- To facilitate the **development and empowerment of future leaders** in sustainability through our research, teaching and learning activities.
- To **engage our student body, staff and wider community** in becoming active citizens for sustainability.
- To **minimise the local, regional and global environmental impacts** of our educational, research, and ancillary operations, and infrastructural development.
- To **enhance the health and well being of the University and wider community** through the facilitation and promotion of healthy eating and living as an integral part of sustainable living.



Succeeding the previous Sustainability Strategy (2016), the *Sustainability and Climate Action Plan* continues to speak directly to the UN's Sustainable Development Goals and work is ongoing across the university to assess how the goals are implemented across our teaching, learning, research and outreach, as well as to measure the impact of these activities.





## SUSTAINABILITY GOVERNANCE AT UCC

UCC Green Campus is *student led, research informed and practice focused*, reflective of the three main approaches to sustainability at UCC.

The sustainability agenda at UCC is driven by “bottom-up”, “top-down” and “middle-out” approaches. Each contributing to UCC’s internationally renowned Green Campus.

### Bottom-Up

The **Green Campus Committee** (GCC), in operation since 2007, is the student-led element, which sits regularly throughout the academic year and runs events and campaigns with a sustainability theme. The GCC is co-chaired by Student Union and Environmental Society representatives. The GCC takes its lead from the student population and is one of the means through which university management stay informed of the wishes and priorities of the students.

The UCC **Students’ Union** has an **Environmental & Sustainability Officer** position on the Students’ Union Executive. The Students’ Union in UCC also engages with the Union of Students in Ireland’s Sustainability Manager. UCC’s vibrant student **Clubs and Societies** are key in advocating for and practicing sustainability.

### Top-Down

An **Associate Vice President for Sustainability** was appointed during 2023 with the aim of providing scientific, research and academic leadership and vision to UCC Futures: Sustainability and consolidating all elements of research and activity on sustainability and climate action within the University.

A **Subcommittee of the University Leadership Team** (ULT) for sustainability and climate action was established in 2022. The subcommittee’s purpose is to: **(1)** support UCC’s sustainability management from a strategic and operational perspective and, **(2)** monitor implementation of the *Sustainability and Climate Action Plan*’s 62 actions and any associated policies and procedures.



**UCC Buildings & Estates** lead many of the day-to-day operational actions and delivering strategic capital projects key to achieving a net zero and energy efficient campus.

The **UCC Office of Sustainability and Climate Action** was established in 2022 as a unit within the President's Office. This office has responsibility for delivering the UCC Sustainability and Climate Action Plan, supporting SDSN Ireland, Green Shoots and Green Campus related European projects, as well as supporting the further embedding of sustainability culture across all functional areas of UCC.

### Middle-Out

Middle-out is where much of the innovative and collaborative action on sustainability takes place. One example is the award winning **University-Wide module in Sustainability** where a multi-disciplinary approach is taken both in its teaching and learning outcomes. Module participants put themselves in the picture of sustainability to centre and ground their learning.

The **Green Forum (GF)**, established in 2013, plays a “strategic” role in the long-term direction of sustainability activities within UCC. The GF is chaired by President John O'Halloran and the Director of Buildings and Estates, Mark Poland. The GF has representation from operations, professional services, subsidiary companies, contractors, academia, the Student's Union and the GCC. The GF meets three times per year.







*“As we deal with the monumental challenges caused by climate change, this mural aims to encourage us all to imagine our best future and build towards it. Sustainable solutions that protect our limited resources are our best way to a prosperous future” - Kevin O’Brien*

**‘Sustainable Communities’** by Kevin O’Brien  
Mural located at the College Road entrance to UCC.

@kevob777



# METHODOLOGY

A combination of methods were used in the preparation of this year's sustainability report.

The case studies for each of the SDGs were identified by searching through the 2023 content on the UCC website. And suitable content was mapped to a SDG target and university activity area (i.e. research, operations, engagement and learning). Other sources of content for case studies included; [O'Donoghue's \(2022\)](#) report '*The contribution of UCC Research to the United Nations Sustainable Development Goals*', [UCC's Green Campus Reassessment 2023](#), [UCC AASHE STARS Report 2022](#) and UCC Environmental Research Institute's annual report.

The figures for the no. UCC publications aligned to each SDG (1-16) came from SciVal (a ranking search engine developed by Elsevier). SciVal currently does not measure the scholarly output for SDG 17. As a result, the data for UCC publications aligned to SDG 17 is the sum of SDGs 1-16 for the purposes of this report. Following the precedent set by the University of Manchester in its [annual sustainability report\(s\)](#). All research publication figures from SciVal correct as of 10/05/2024.



The data regarding the number of modules linked to each SDG is derived from [UCC's AASHE STARS Report 2022](#). Where it maintained its Gold Award.

2023 operational stats from UCC Buildings & Estates were provided from colleagues for GHG emissions, energy efficiency, water usage and waste. The Commuter Plan Manager also shared data from the March 2023 edition of UCC's long running annual commuter survey (students and staff).

Additionally, some case studies have a bubble beside them indicating what *SDG Target* they primarily align with. There are over 150 individual SDG targets. In coming years, UCC will examine more systemic means of mapping its operational and engagement activity to SDG Targets.



# Research

6153

Publications across all SDGs  
(2019-2023)



12.8%

of all Irish Publications  
across all SDGs  
(2019-2023)



#1

amongst publications by Irish  
universities for SDG 14  
(2019-2023)

# Operations

Waste Streams

118t



GENERAL  
WASTE

66t



MIXED DRY  
RECYCABLES

28t



FOOD  
WASTE



Water  
Consumption  
31,559m<sup>3</sup>

48%

improvement in  
energy efficiency

22.5%

reduction in  
GHG emissions

GHG Emissions

## 2023 HIGHLIGHTS

**Healthy  
Campus Charter** signed  
by UCC



Informing local  
policymaking:  
Cork City  
Local Economic and  
Community Plan  
Cork City  
Climate Action  
Plan

Climate Action  
Week

Biodiversity  
Week

Campus Cycle  
Week

Sustainability  
Engagement  
Events at UCC

Culture Night

Green Week

Cork Lifelong  
Learning Festival

4 UCC  
Colleges

Arts, Celtic Studies  
& Social Sciences

Medicine &  
Health

Science,  
Engineering & Food  
Science

Business  
& Law

709 UCC  
MODULES  
LINKED TO  
THE SDGs

17206

Undergrads

7180

Postgrads

# Engagement

# Learning



@cllrkieranmc





# END POVERTY IN ALL ITS FORMS EVERYWHERE

1 NO POVERTY



UCC Publications per  
SDG 1 (2019-2023)



## RESEARCH

### Launch of 'In Transit' Research Report

On May 25th 2023, Senator Alice Mary Higgins launched the research report "In transit" documenting the lived experiences of welfare, working and caring for one parent families claiming Jobseeker's Transitional Payment.

The report is based on the outcomes of the IRC-funded "In Transit" project, which set out to document the lived experiences of Jobseekers Transitional Payment (JST) recipients and to explore how JST is working 'on the ground'. for people living in single parent households. These households are consistently over-represented in poverty statistics across all metrics (at risk of poverty, enforced deprivation and consistent poverty). The work was carried out in conjunction with One Family, and was led by Dr Fiona Dukelow at the School of Applied Social Studies at UCC.



Dr Fiona Dukelow (PI)  
UCC School of Applied Social Studies

### ACCESS UCC

As part of its commitment to inclusion across the diverse programmes it offers, UCC supports student access via a number of alternative access routes. For instance, in 2023 just over 20% of students registered through non-traditional access routes including the Disability Access Route to Education (DARE), the Higher Education Access Route (HEAR) and others.



**Access UCC  
Support Team**

In addition, UCC also provides a number of other financial supports and bursaries. These include:

- 1916 Bursary for students who are from the most socio-economically disadvantaged and the most under-represented groups in higher education.
- The Access UCC Traveller Success Fund is a bursary scheme established to assist students from the Irish Traveller Community.

Other supports include the UCC Student Assistance Fund and the Student Budgetary advisor.

## OPERATIONS

# END POVERTY IN ALL ITS FORMS EVERYWHERE

1 NO POVERTY



## ENGAGEMENT

### *Socioeconomic Impact of Cork Northwest Regeneration Programme*

Researchers from UCC's School of Applied Social Studies have been undertaking ongoing longitudinal research, since 2014, regarding the impact and implementation of the *Cork Northwest Quarter Regeneration Masterplan*. This work has been led by Professor Cathal O'Connell and Dr. Siobhan O'Sullivan. Objectives of the latest phase have included:

- reviewing the local *Social Economic and Environmental Programme (SEEP)* in close consultations with community organisations,
- evaluating arising projects from the regeneration programme,
- conducting ongoing consultation with residents as the phases progress.



Amongst a multitude of other projects going forward, a new project entitled *GreenInCities* (funded by Horizon 2020) successfully won a call for funding connected to EU Mission Cities. The research team is committed to continuing its work and collaboration with local residents, civil society organisations, voluntary workers and Cork City Council in the north west quarter of Cork City.

UCC Modules  
linked to **SDG 1**

15  
MODULES  
LINKED TO  
SDG 1

### *MSocSc Voluntary and Community Sector Management*

The Masters in Voluntary and Community Sector Management is a unique course that provides education, training and skills in managing and/or coordinating voluntary and community organisations. As such, the 2 year part-time course will contribute to the ongoing professional development of workers already in the community and voluntary sector as well as opening the door to wider opportunities in the sector for those seeking employment there.

There are more than 25,000 voluntary sector organisations in Ireland, that provide vital services in welfare, poverty alleviation, social inclusion amongst countless other areas. The Master's is co-ordinated Dr. Claire Edwards in the School of Applied Social Studies, and taught by lecturers in the School and in the five other contributing departments within UCC.

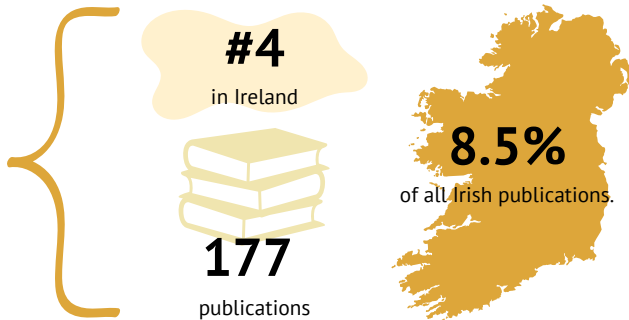
## LEARNING







UCC Publications per  
SDG 2 (2019-2023)



## RESEARCH

### SC-Protein Project

In September 2023, a number of UCC projects were awarded funding under the Science Foundation Ireland National Challenge Fund. These included the SC-Protein project, a sustainable climate-proof waste-to-protein system for developing feed-grade protein solutions. SC-Protein will transform locally available agrifood industry waste streams into cost-effective alternative growth substrates which in turn will generate sufficient feed-grade proteins for animal feed without using arable land and water.



Dr Gaurav Rajauria  
(SUSFERM Research  
Centre, UCC)

The project is led by Dr Gaurav Rajauria in the SUSFERM Fermentation Centre and the Schools of Microbiology and Food and Nutritional Sciences, and in collaboration with Teagasc and Trouw Nutrition Ireland.

### UCC Promoting Local and Urban Farming

At the UCC Staff Recognition Awards in October 2023, The UCC Urban Farm Team, led by Dr Barbara Doyle Prestwich collected the Cross Campus Engagement Award for their innovative use of aeroponic towers to engage a diverse audience with plants and crop production. As well as various schools and visiting groups, the Urban Farm Team engaged colleagues from across the University with the growing project. Team members included Dr Michelle Cronin (RIP), formerly MaREI; Dr Martha Gosch, School of BEES; Ms Mairead Kiely, School of BEES; Dr Eoin Lettice, School of BEES and Dr Mary O'Shaughnessy, Department of Food Business and Development. The Urban Farm project was funded by the UCC Green Campus, Living Lab initiative.

Green Towers have also been installed in the UCC Library, with students being given fresh bunches of leafy green produce for free each harvest day.

## OPERATIONS

Example of UCC Green Tower Produce



# END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

2 ZERO HUNGER



## ENGAGEMENT

### *UCC Community Garden and Green Shoots*

UCC's "Green Shoots" programme kicked off in January 2023, with Irene Ní Shuilleabháin joining the Office of Sustainability and Climate Action to lead it out. The programme supports students to engage more meaningfully with campus green space, including the UCC Community Garden. Throughout the year Irene ran garden "pitch-in" days where staff and students weeded, pulled old vegetation, cleaned polytunnels and greenhouses, and helped out with other odd jobs. Every participant went away with a bag of fresh produce in return.



The UCC Community Garden promotes sustainable, local food production other events included a Open Days and an "Introduction to Permaculture" workshop. As part of Green Week, a nature and foraging walk was held in March 2023 on UCC campus, which highlighted to participants the opportunities for foraging and local food sourcing right on our doorstep.



CORK  
UNIVERSITY  
BUSINESS  
SCHOOL

### *MSc Sustainable Development, Agri-Food & Cooperatives*

The renowned *MSc in Sustainable Development, Agri-Food and Co-operatives*, offered by CUBS at UCC, is the only course of its kind in Ireland. It integrates co-operative approaches into the study of sustainable development and agri-food.

With a very strong practical emphasis, the course equips participants with the organisational and management skills needed to make innovative contributions to the development of local economies, with particular emphasis on co-operatives, social enterprises, and food businesses in Ireland and overseas.

It is aimed at graduates from a wide range of disciplines who wish to pursue careers in sustainable development and innovative practice in the public, private and voluntary sectors.

## LEARNING

UCC Modules  
linked to SDG 2

29  
MODULES  
LINKED TO  
SDG 2



# ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

3 GOOD HEALTH AND WELL-BEING



UCC Publications per  
SDG 3 (2019-2023)



## RESEARCH

### BEHAV-I-AIR

BEHAV-I-AIR (**BEHAV**iour and **I**mpacts on **AIR** quality) is a project awarded funding in 2023 by SFI. The core team comprises Dr Marica Cassarino (Project Lead, UCC School of Applied Psychology), Dr Dean Venables (UCC School of Chemistry) and Dr Kevin Ryan (Cork City Council).

The project is a collaboration between UCC, Cork City Council, Cork Healthy Cities and other community and academic partners who are passionate about raising awareness about air pollution issues and solutions, and promoting less polluting behaviour. The project aims to showcase co-development of air quality alerts that provide timely, accessible and empowering messages for increased awareness, protective behaviours and public mobilisation for cleaner air.



Student Health Centre Staff, Professor John O'Halloran and Simon Harris TD (at the official opening of the new facility)



### New Student Health Centre

The Crow's Nest redevelopment on Carrigrohane Road was completed in 2023. The site contains student accommodation (255 beds) above a café and the UCC Student Health Centre. The facility hosts the centre's physical health personnel including Doctor, Nurse and Physiotherapy services. The facility was officially opened by then Minister for Further and Higher Education Simon Harris TD in late 2023.

In 2023, UCC signed the Healthy Campus Charter. A Healthy Campus adopts a holistic understanding of health, takes a whole campus approach and aspires to create a learning environment and organisational culture that enhances the health and wellbeing of its community and enables people to achieve their full potential.

## OPERATIONS

# ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

3 GOOD HEALTH AND WELL-BEING



## ENGAGEMENT

### PAWS @ UCC

My Canine Companion (MCC) launched a new 3 year programme called **Promoting Academic Wellbeing Supports (PAWS)** in collaboration with UCC. The aim of PAWS @ UCC is to enhance the overall wellbeing of UCC students and staff, with regular dog-based activities being held on campus to foster a sense of belonging and promote social connections. The programme aligns with UCC's Strategic Goal 2.4\* to support 'student success, health and wellbeing, informed by the student voice.'

As project lead the UCC School of Nursing and Midwifery is collaborating with multiple college services and departments to create a lasting and effective programme. Upon PAWS' conclusion, the programme will be evaluated and a blueprint for a sustainable animal-assisted wellbeing program in Higher Education Institutes (HEIs) will be published.

### *School of Nursing and Midwifery Secures Top 50 Ranking in QS*

In 2023, UCC's school of Nursing and Midwifery was ranked 33rd globally in the QS subject rankings for nursing. This places UCC's School of Nursing and Midwifery as the top ranked School in Ireland. World university rankings show nursing is one of Ireland's strongest subjects with four Universities making it to the top 100 in the QS rankings most years.

The data provides students, policymakers, faculty, and employers with insight into the School's performance. The prestigious ranking enables the school to increase its research funding endeavours, attract world class research talent and ensure that talent from within is visible nationally and internally. The ranking is reflective of a school which contains a high functioning research, teaching and learning ecosystem.



## LEARNING

UCC Modules  
linked to **SDG 3**

87  
MODULES  
LINKED TO  
SDG 3

\*Securing Our Future: UCC Strategic Plan (2023-2028)





## RESEARCH

### The Praxis Project

Praxis aims to integrate ‘*Development and Global Citizenship Education*’ (DGCE) into pedagogy, research and capacity building activities across University College Cork. The ongoing project is housed at the Centre for Global Development (CGD) and funded by Irish Aid.

“Since 2018 the Praxis Project has directly impacted many students, staff, departments and schools at UCC and beyond. We have been developing our capacity to integrate a sense of global justice education into all aspects of the work of the university. Working with colleagues in other higher education institutions and civic society organisations, we will continue to foster a critical perspective, including of the SDGs themselves, on higher education, with a view to transforming how we view education, development and citizenship.”

- Dr Gertrude Cotter (PI)

### Connected Curriculum

UCC’s Academic Strategy (2018-2022) focused on 6 key priority areas, one of which was to develop a Connected Curriculum to provide greater curricular coherence and enhance the student and staff experience. UCC’s Strategic Plan 2023-28 aims to further embed the Connected Curriculum and lifelong learning, enabling educational and professional success for all students.

Sustainability is one of six components of the Connected Curriculum. It is hoped that the implementation will surface good practice and provide inspiration and tools to support staff to integrate the distinct components of the Connected Curriculum framework in their teaching. The implementation of the Connected Curriculum will ensure that these connected experiences are articulated and visible in the course descriptions and learning outcomes.

## OPERATIONS



# ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

4 QUALITY EDUCATION



## ENGAGEMENT

### Lifelong Learning in 2023

For many years, Cork Learning City has embedded the principles and practice of a UNESCO learning city to Ireland's second city. UCC has been a member of this partnership from its inception. Norma Brown (UCC) coordinates the *Learning Neighbourhood Programme*. The Cork Lifelong Learning Festival is annual showcase of the neighbourhoods, communities and organisations engaged bottom-up in Cork Learning City. 2023 was no different, with UCC hosting many events and many lecturers and researchers leading events across the city.



UCC's commitment to Lifelong Learning was recognised in 2023 when the ACE (Adult Continuing Education) Centre was featured as the sole European case study to feature in the UNESCO report on 'Institutional practices of implementing lifelong learning in higher education'. The ACE centre supports 3,000 adult learners annually reaching students in all contexts and levels.



### Embedding Sustainability in UCC's Curriculum

The SDG toolkit was developed by a multi-disciplinary team and launched in 2021 to provide a curated resource to support staff in better integrating sustainability into teaching and learning at UCC. In 2018 6% of UCC modules addressed sustainability. By 2023, this was estimated to be closer to 11%. A Digital Badge course has also been developed to compliment and promote the use of the SDG toolkit amongst the UCC teaching community.

AY 2022/23 saw Cork University Business School join the UN Principles for Responsible Management Education. CUBS, acting as Co-Leads of the All-Ireland local network of business schools, undertook numerous activities in 2023 including a guest Industry Speaker series, a new shared portal for Industry Engagement, All-Ireland Student Competitions and a workshop series on Integrating Sustainability into Courses.

## LEARNING

UCC Modules  
linked to SDG 4

23  
MODULES  
LINKED TO  
SDG 4



# ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

5 GENDER EQUALITY



UCC Publications per  
SDG 5 (2019-2023)



## RESEARCH

### ***PRECNIGHTS Project***

PRECNIGHTS is an ambitious anthropological project on labour migration and precarity, focusing on the essential, yet invisible, women migrant night workers (WMN) in Ireland. PRECNIGHTS aims to make visible WMN through an intersectional methodology that not only examines precarity, migration, gender and nightwork, but also focuses on how each of these four dimensions magnifies the lived experiences of the others; and, further, through ground-breaking, digital, and nocturnal ethnography that captures night experiences.

The projects is led by Drs Caitríona Ní Laoire and Julius-Cezar Macarie at ISS21 in UCC. The ISS21 Genders, Sexualities and Families cluster provides a dynamic interdisciplinary forum for scholars and students researching in the fields of gender, sexuality and family.



### ***Athena Swan***

UCC's Strategy "Securing our Future" (2023-28) Goal 2 highlights a key institutional goal to "Embed a culture of equality, diversity, inclusion and belonging in UCC, embracing our differences as a key institutional strength. Within this goal, the University commits to develop and implement UCC's first Equality, Diversity, Inclusion and Belonging (EDIB) Framework (2023-2028) including targeting a silver institutional Athena SWAN award.

The Athena Swan programme supports HEIs to undertake impactful gender equality work and build capacity for evidence based activities in this area. In 2023, the Schools of Clinical Therapies, Mathematical Sciences and Computer Science and Information Technology all received Bronze Athena Swan awards. The national Athena Swan awards ceremony was held in UCC in November 2023.

## OPERATIONS



Members of the School of Clinical Therapies, the School of Mathematical Sciences and the School of Computer Science and Information Technology with the Deputy President and Registrar.

# ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

5 GENDER EQUALITY



## ENGAGEMENT

### *Bystander Intervention Training*

The UCC Bystander Intervention programme is led by Professor Louise Crowley of the School of Law. In 2023 the programme continued to grow its reach, both across the University and nationally. The staff and workplace programme was launched during Bystander Intervention Week in February 2023, while a new collaboration with UCC Sport saw UCC GAA become Cork's first club to include Bystander Intervention training as part of a suite of programmes to enhance their members' physical, social, emotional, and psychological health.

In September Prof Crowley commenced Sexual Ethics and Respectful Relationships training with the Irish Defence Forces, while in November, the team were invited to present their Bystander Intervention second level pilot findings to the Oireachtas Committee on Consent Programmes in Irish Education.



Official announcement that UCC GAA Club will be the first to participate in pilot Bystander Intervention Training for clubs.



### *MA in Women's Studies*

The MA in Women's Studies has been taught at UCC since 1991-1992. The programme is interdisciplinary, with academics across the College of Arts Celtic Studies and Social Sciences as well as from the College of Business and Law contributing to the Masters. Students develop a grounding in feminist theory and research while also examining gender and society through a multidisciplinary lens.

The MA course combines lectures, seminars, directed readings and thesis research. There is an emphasis on student participation and critical debate with teachers and peers in class. Examples of dissertation topics have included Ireland's "Repeal the 8th" movement, the position of women in the Irish Navy, and the #metoo movement in the United States. The course is coordinated by Dr Armida De La Garza, Senior Lecturer in Digital Arts and Humanities at UCC.

## LEARNING

UCC Modules  
linked to **SDG 5**

28  
**MODULES  
LINKED TO  
SDG 5**



# ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL



## RESEARCH

### Policy Recommendations to support out of season bathing in Ireland

Dr Linda O'Higgins, a postdoctoral researcher at the ERI in UCC undertook research with a deep societal impact regarding policies to best support the development of out of season bathing in Ireland. While out of season bathing has experienced a surge in popularity in recent years, it is not without its risks. In particular the risk of microbial contamination can be significant following periods of heavy rainfall.

Dr O'Higgins work involved the collation of all available scientific evidence as well as an assessment of current best practice strategies for management and communication of out of season risks. The recommendations of the report were presented directly to the Department of Housing Local Government and Heritage.



### Uisce Éireann Water Stewardship Programme

Since 2019, UCC's Estates office has been a Certified Water Steward with the help and guidance of Irish Water's "Water Stewardship Programme". Through the program the Estates office developed a water charter, outlining 12 priority areas for the University to take action on. Actions range from creating awareness of water conservation across the University, installation of additional water metering and improved operational controls across the Estate.

Cleaning was historically a significant consumer of water across the estate but thanks to the adoption of chemical free cleaning by our contractor Bidvest Noonan, huge savings have been achieved. In 2023, the Made Blue Foundation, which invests in water projects in countries with severe water scarcity, certified that UCC had saved 81,000 litres of water through these measures.



## OPERATIONS

# ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL



## ENGAGEMENT

### ERI Researchers Enaging the Public on Water

Researchers at UCC’s Environmental Research Institute undertake significant public engagement activities related to their work on SDG 6. To mark World Water Day 2023, the team from Brainwaves project produced a short video about the importance of clean water, explaining what impact humans have on the planet and how we are searching for new solutions to the problem of water pollution. The Brainwaves project is funded by the European Regional Development Fund and is a collaboration between UCC and Aberystwyth University in Wales.

Later in the year, ERI academic Jean O’Dwyer featured on the RTE TV show “Ten Things to Know” and discussed the importance of groundwater in Irish drinking water supplies. Dr O’Dwyer’s research focuses on contamination of drinking water and antimicrobial resistance.



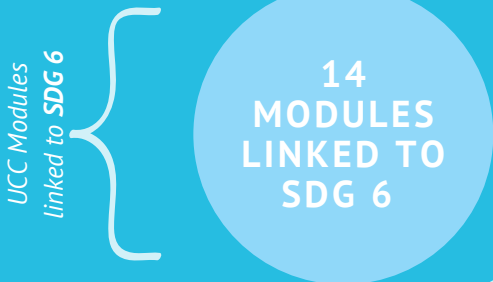
### UN GEMS Water CDC at UCC

The United Nations Environment Programme (UNEP) GEMS/Water Capacity Development Centre (CDC) was hosted by UCC from 2015 to 2023 with the aim of providing global capacity development in water quality monitoring and assessment working on a programme of activities to support the Sustainable Development Goals (SDGs), specifically SDG 6 – Clean Water and Sanitation. The Centre developed an MSc programme as well as CPD courses in Freshwater monitoring and data handling. The CPD courses are available on UNEP’s eLearning platform.



In 2023, the Centre held an Innovation Workshop in Petten, the Netherlands. 65 participants attended the event, which was conducted in a hackathon-style format and aimed to pull collective intelligence to innovate on water quality monitoring and assessment challenges.

## LEARNING

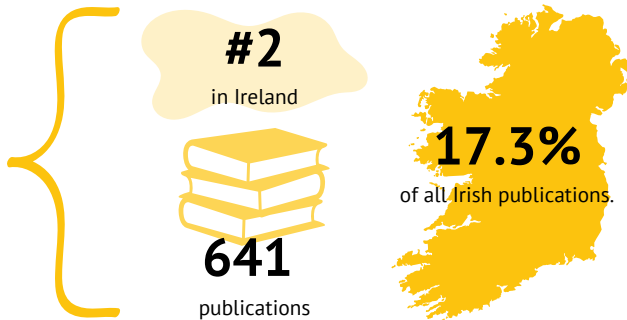


# ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

7 AFFORDABLE AND CLEAN ENERGY



UCC Publications per  
SDG 7 (2019-2023)



## RESEARCH

### EnergyMEASURES

EnergyMEASURES is a Horizon 2020 funded project focused on tailored interventions to energy poor households. The project, which ended in 2023, worked to address energy poverty in seven European countries through two complementary and synergistic strands of work. Namely, through direct household engagements that are complemented and informed by cutting edge policy and practice innovations.

Findings include:

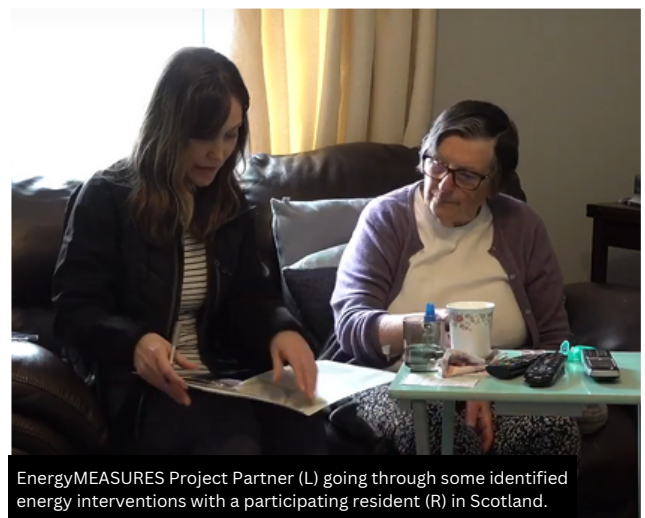
- how energy literate a purposive sample of energy-poor households are,
- the effectiveness of individualised energy engagement plans and their identified energy interventions,
- very impactful human stories behind each case offering an opportunity for households to share their lived experience.
- recommendations for municipalities and civil society in how to positively engage and promote agency with vulnerable citizens.

### Saver Saves Scheme

The Saver Saves Scheme has been in operation at UCC for several years. It targets identified Significant Energy Users (SEUs). Participants have their energy budget devolved to them at the start of the financial year and establish a team to drive energy efficiency and reduction projects in the SEU (with the advise and support of the university's energy manager). Any financial savings made by participants remain in their department/unit to be reinvested in further sustainability projects.

Participants to date include, the Boole Library, the Pharmacy Building, Glucksman Gallery, ERI, North Mall and the Quadrangle. 2023 saw 22 energy upgrade projects undertaken across these buildings resulting in a 4% reduction in total energy use overall.

## OPERATIONS



EnergyMEASURES Project Partner (L) going through some identified energy interventions with a participating resident (R) in Scotland.



# ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

7 AFFORDABLE AND CLEAN ENERGY



## ENGAGEMENT

### *Engaged Energy Research at MaREI*

Researchers at MaREI undertake significant engagement with local and national authorities to advise on Ireland's transition to a low carbon future. In February 2023, Ireland's Department of Environment, Climate and Communications awarded €3.5m in funding to provide energy modelling analysis over the next five years. Under the funding agreement Government Departments will be able to directly access UCC's expertise, in a bid to ensure future decisions on Ireland's energy and climate policy are evidence-based.



Professor Hannah Daly (L, Judge)  
Ayomide Ajani (R, Recipient of the Mary Mulvihill Award 2023)

In May 2023, UCC fourth year student Ayomide Ajani won the 2023 Mary Mulvihill Award for her digital essay on the future of energy. The competition commemorates the legacy of science journalist and author Mary Mulvihill, and awards a prize of €2,000. Ayomide's entry highlights how literary considerations of energy have often reflected uncertainties surrounding the relationships between science, technology and society.

UCC Modules  
Linked to **SDG 7**

30  
MODULES  
LINKED TO  
SDG 7

### *New HCI funded courses supporting the renewable energy sector*

UCC is home to Ireland's first MSc. programme in Sustainable Energy Engineering, which has been running since 2005. In 2023, UCC launched a new Human Capital Initiative funded Postgraduate Diploma in Energy Innovation for Zero Carbon, a PG Cert in Offshore Renewable Energy and a Microcredential in Offshore Wind & Ocean Energy Conversion.

The programmes were developed in collaboration with industry and aim to support the energy sector, and Ireland as a whole, to fulfill it's commitments under the Paris Climate Agreement. The programmes are aimed at current workers who are looking to reskill, and the fees are 90% subsidised for eligible applicants. Under Recognition of Prior Learning (RPL) applicants who do not meet the academic entry requirements may be considered for admission based on other relevant experience.

## LEARNING



UCC Publications per  
SDG 8 (2019-2023)



## RESEARCH

In 2023 Cork University Business School recruited 10 new hires under the UCC Futures: Sustainability programme. The hires included two new Professor posts.. **Professor Valeria Andreoni** is the AIB Professor in Sustainable Business focusing on Ecological Economics, Energy Economics and Degrowth.

**Professor Femi Amao** is a Professor of Company Law and Sustainability, his research examines the nexus between company law, sustainability and business and human rights, with a particular focus on the Global South.



The appointments add to the already significant sustainability research expertise in CUBS including in the areas of environmental planning and sustainable consumption and production.



## Graduate Attributes Programme

The GAP Programme at UCC aims for all graduates to be:

- Creators, evaluators and communicators of knowledge
- Independent and creative thinkers
- Digitally Fluent
- Socially Responsible
- Effective global citizens, who recognise and challenge inequality.

In 2023, the team introduced a new online learning module for students called “GAP for Goals”, which support students in increasing their understanding of each SDG. The online learning resource explores each of the goals in turn, highlighting how they each related to UCC’s Graduate Attributes and then signposting to specific activities that relate to the achievement of the Goals. Students are also directed to the UCC SDG Toolkit and invited to map their programmes and modules.

The Graduate Attributes Programme supports life-wide and life-deep learning in the transition in, transition through, and transition out of university. Ultimately it supports our students to obtain meaningful employment and become global citizens contributing to more sustainable development for all.

## OPERATIONS



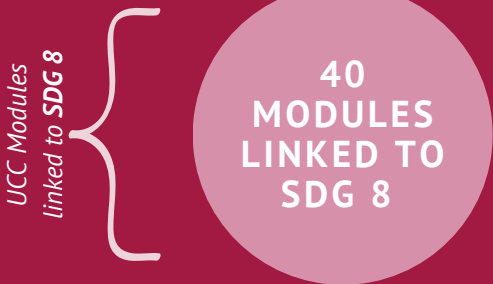
## ENGAGEMENT

### *CLIMAR Programme*

UCC is an active partner in the CLIMAR (Strengthening research, innovation and knowledge transfer on Climate Change & Tourism in Higher Education Institutions in Latin America) programme, which officially kicked off in April 2023. The consortium is composed of 5 EU and 10 Latin American institutions and was funded under the EU Erasmus 2022 CBHE call.

The approach taken in CLIMAR not only helps the partner universities to develop and internationalise their research in two key areas – climate change and tourism – but also links this research to teaching, knowledge transfer and the professional development of people in the private and public sectors, thus strengthening the role of universities in society.

UCC's participation in this programme builds on many years of engagement with partner Universities in South America, most notably Colombia as well as the OBREAL Group, an NGO that promotes interregional collaboration. UCC's Latin America Regional Working Group has collaborated with Green Campus over many years to develop collaborations in this area.



### *UW0012/Digital Badge in Citizenship for Global Development*

The module introduces participants to the theory, themes, values and practice of Critical Global Citizenship and Development Education (GCDE). Facilitating them to contextualise their learning within their own disciplines and support them to develop cross-disciplinary collaboration and civic engagement skills, with a view to taking informed, collective action towards a just society.

Coordinated by Dr Gertrude Cotter (UCC School of Education), the module runs annually every January and is open to UCC students and staff.

Themes critically explored by the module include; global wealth/poverty, social justice, sustainable development, geopolitics, aid, financial justice, power, social movements, local and global governance and intercultural communications. A number of guest speakers from various civil society organisations contribute to the module's lectures.

## LEARNING





## RESEARCH

### *UCC Research for a Sustainable Future*

UCC is an internationally recognised and competitive, research intensive university that provides greater insight into the collective challenges faced by society. In 2023, it was announced that UCC will play a leading role in two new €70 million research centres - the Climate+ Co-Centre, and the Co-Centre for Sustainable and Resilient Food Systems. The funding will bring together academics, industry and policymakers across the Irish Government, UK Government and Northern Ireland Government Departments to collaborate on food sustainability and climate change.

Professor Mairead Kiely (School of Food and Nutritional Science) is the Nutrition and Health Platform lead in the Co-Centre for Sustainable and Resilient Food Systems while Dr Jean O'Dwyer (School of Biological, Earth and Environmental Science) will lead the Sustainable Communities and Livelihoods Research Challenge within the Climate+ Co-Centre.

### *UCC Supporting Innovative Start-Ups*

UCC's Strategic Plan highlights as a key goal to "Deliver impactful research and innovation that addresses global grand challenges in signature areas of excellence". UCC Innovation serves as the primary gateway for staff and students looking to develop economic impact from their expertise, research and creativity. In 2023, over 790 students attended a series of "Inspiring Entrepreneurs" talks and 35 graduates took part in the Ignite Start-Up Incubation Programme. These details are captured in the UCC Innovation "Impact Report 2023".

Throughout 2023, the Ignite Programme supported a number of start-ups with a sustainability focus. One of these businesses "Fash Forward", led by Ailis Crowley, partners with a network of sustainable brands to host sustainability workshops on repair and upcycling. Ailis and her partners ran a number of events on campus throughout 2023, in collaboration with UCC Green Campus.

## OPERATIONS





## ENGAGEMENT

### *Sustainable Futures Lab and Hub*

Sustainable Futures is a collaboration between UCC, Maynooth University and Atlantic Technological University funded under the Irish Government's Human Capital Initiative. The programme uses enterprise informed curriculum development to deliver a suite of courses aimed at upskilling the current workforce to drive sustainability and climate action within their organisations.

The project established a 'Sustainable Futures Lab' spaces at UCC, dedicated to engaging enterprise and in April 2023 hosted an in-person enterprise engagement day at the lab. The aim of the day was to reinforce the convening power of our enterprise and university sustainability leaders' network. During the day, enterprises discussed sustainability challenges and solutions, as well as synergies and potential collaboration opportunities between Sustainable Futures and enterprise partners.



Sustainable Futures Lab in the UCC School of Engineering & Architecture



UCC Modules linked to SDG 9

39  
MODULES  
LINKED TO  
SDG 9

### *CUBS and UCC Innovation SDG Driven Entrepreneurship*

UCC innovation, in collaboration with Cork University Business School collaborated on an "Impacting SDGs" initiative in 2023, which included:

- An SDG Summer School consisting of 5 full days of workshops and exercises throughout June.
- An SDGs-Driven Short Course and Digital Badge aimed at empowering participants to learn about sustainable entrepreneurship and demonstrate the role it can play in addressing societal and environmental challenges as a core for the future of society.
- The SDGs-Driven Entrepreneurship Simulation Game which delivers an innovative, unique coffee shop simulation game that integrates sustainability with business decisions and strategies.

The initiatives were funded by the Higher Education Authority.

## LEARNING





**594**

**RESEARCHERS**



**298**

**ACTIVE PROJECTS**



**PROFESSOR BRIAN  
O'GALLACHIR APPOINTED NEW  
DIRECTOR OF ERI AND UCC'S  
ASSOCIATE VP FOR  
SUSTAINABILITY**



**338**

**PUBLICATIONS**

**UCC  
ENVIRONMENTAL  
RESEARCH  
INSTITUTE'S  
2023 HIGHLIGHTS**

**33**

**POSTGRADUATES  
GRADUATED  
IN 2023**



**€13.8M**

**IN NEW RESEARCH  
FUNDING IN 2023**

The Environmental Research Institute (ERI) continues to bring together nearly 600 researchers from across UCC's four colleges. This creates an unique research environment intended to promote and foster transdisciplinary research addressing environmental and sustainability themed research topics. In the year 2023, over 298 research projects were active and 338 research publications were generated by the institute. Much of the ERI research contributes to how we can meet societal needs and supports communities and enterprises in transitioning to sustainable futures. A wide selection of research, management and administrative staff associated with the ERI sit on the UCC Green Forum and ULT and help guide UCC's own sustainability policies.





5

**FULL-TIME STAFF**

4

**GREENSHOOTS  
CHANGEMAKERS**  
IN THE PROGRAMME'S  
INAUGRAL YEAR



4

**DEMO PROJECTS AND 1  
MSC PROJECT**  
FUNDED BY UCC'S LIVING LAB FUND  
IN 2023



2

**CLIMATE LEADERSHIP  
SESSIONS**  
DELIVERED TO UNIVERSITY LEADERS



**UCC**  
OFFICE OF  
SUSTAINABILITY AND  
CLIMATE ACTION  
2023 HIGHLIGHTS

2

**INTERNATIONAL  
PROJECTS**  
FUNDED BY THE EU'S ERASMUS  
PLUS PROGRAMME



The **UCC Office of Sustainability and Climate Action** was established in January 2023 as a unit of the President's Office.

Led by Dr Maria Kirrane, the office works on a number of projects, provides secretariat support to the *Green Forum* and *ULT Subcommittee on Sustainability and Climate Action* and promotes and advocates for further sustainability and pro-environmental practice throughout UCC.

In its first year of operation, the team grew to 5 personnel. The Office also includes the manager of **SDSN Ireland**, an all-island network that UCC co-hosts with Queen's University Belfast.

5th Green Flag Renewal  
An Taisce/FEE

Global Sustainability  
Institution of the Year  
International Green  
Gown Awards (2023)

58th Globally  
THE Impact Rankings  
for the SDGs  
(2023)

6th Globally  
UI Green Metric  
(2023)



**SUPPORTING OUR  
INTERNATIONALLY RENOWNED  
GREEN CAMPUS**

# REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

10 REDUCED INEQUALITIES



UCC Publications per  
SDG 10 (2019-2023)



## RESEARCH

### CIPHER

CIPHER is an ERC funded project led by Professor J. Griffith Rollefson at the School of Film, Music and Theatre in UCC. CIPHER is investigating the international spread of hip hop culture and its attendant musical, lyrical, artistic, and performative forms on six continents. It is building new infrastructure, ethnographic and digital methods, and socio-cultural theory for the interdisciplinary field of hip hop studies, leveraging hip hop's 'third space' of intercultural dialogue to build a more informed, equal, and just world.

In Feb 2023, the team held a workshop at Cork's Granary Theatre exploring "Space, Memory and Decoloniality in Contemporary Hip Hop: A dialogue between artists and scholars" where scholars were brought into a dialogue on topical themes such as political memory, identity in the diaspora, and cultural hybridisation.

# CIPHER

Mapping Global Hip-hop Knowledges

### EDI Unit and Committee

UCC's Equality, Diversity and Inclusion (EDI) Unit was established in 2017. The unit is currently lead by Dr Avril Hutch, who was appointed to the role of Director in June 2021. By year end 2023, there were 9 people working full-time at the unit. Its responsibilities include:

- Leading the delivery of UCC's EDI strategy,
- Working with the University's Leadership Team and wider partners in support of the University's Strategic Plan, especially **Goal 2: Student Success** and **Goal 4: Our Staff, Our Culture**,
- Leading and overseeing the University's Athena SWAN award and other national equality initiatives.

The unit provides supports and toolkits for staff and students through its EDI Training Hub on themes such as implicit bias, neurodiversity and universal design for learning.

## OPERATIONS



EQUALITY, DIVERSITY AND INCLUSION  
ANNUAL REPORT 2022-23

# REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES



## ENGAGEMENT

### Launch of UCC Race Equality Network

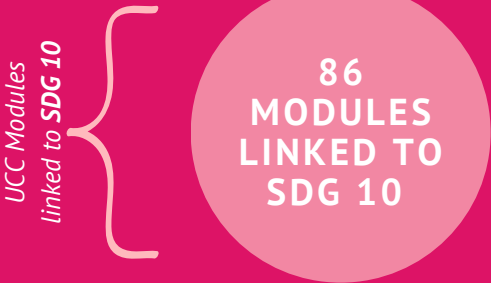
UCC formally launched the University’s Race Equality Network during Equality Week. The network aims to improve the representation, progression and success of staff from minority groups.

The foundational work for the Network began in 2019 with the establishment of the Race Equality Forum in UCC. The Forum listened to the experiences of staff and students of racial and ethnic minorities, learning from their experiences and producing a series of recommendations for the University.

Building on this work, the newly launched Race Equality Network will seek to build a caring community that can contribute to the important advocacy and awareness-raising that the issue of racism requires and will work with UCC leadership to challenge race inequality across higher education and in wider society.



Dr Amanullah De Sondy  
(Chair, UCC Race Equality  
Forum) speaking at the  
network’s launch in October.



### Inclusive UCC

Inclusive UCC is a project group within UCC that is dedicated to promoting digital inclusion for all students. The project aims to help UCC become a leader in digital accessibility, ensuring everyone has equal access to the university’s learning resources.

For 12 years, the group have hosted an event to celebrate Global Accessibility Day. In 2023, a day long symposium focused on ‘Accessible Content in Higher Education’ was held, with a lineup of international experts in the field.

The group also develop and promote a number of resources and toolkit to support both staff and students in ensuring that learning at UCC is inclusive. These include a “Teaching for All” Canvas course for staff and an “Accessibility Skills Guide” for students. The project is managed by James Northridge, with Sophie Gahan as Instructional Designer.

## LEARNING





## RESEARCH

### Socio-Cycle

Socio-Cycle is an IRC funded project that explored the social and cultural significance of cycling in Cork City. Dr Eileen Hogan (PI) and Becci Jeffers (ISS21) were the lead researchers on the project, in partnership with Cork Cycling Campaign and Cork Environmental Forum. The methodology comprised of a short online questionnaire examining current attitudes towards cycling; qualitative research with 15 participants; and narrated journeys from 15 cycling participants who were invited to record a journey of their choosing using a GoPro camera. In February 2023, the project team hosted a symposium at UCC and Cork City Hall.

Some of the recommendations for policy and practice include:

- Fostering cycling culture in starter cycling cities demands strong political leadership.
- Cycling infrastructure is vital for people to feel safe and confident.
- In advancing pro-cycling policy, the rights of all public space users must be recognised and protected.

### Collaboration to accelerate sustainable transport across the south-west region

The Higher and Further Education Institutions in Counties Cork and Kerry (University College Cork (UCC), Munster Technological University (MTU), and the Cork and Kerry Education and Training Boards (Cork ETB and Kerry ETB, respectively), working with Bus Éireann and Local Links Cork and Kerry and the Southern Regional Assembly have come together to develop a proposal for more sustainable transport options across the region. An initial baseline assessment report was undertaken by ARUP in 2023 and highlighted the impact of commuting on institutions' carbon footprints and the potential to develop shared solutions.

This project has the potential to impact significantly on the sustainable mobility of more than 60,000 learners (students) in counties Cork and Kerry. The model developed and the experience gained from this initiative could be utilised to expand the project to the remaining counties in the region (Limerick, Clare, Tipperary) and then for the project to be extended nationally.

## OPERATIONS



Dr Eileen Hogan (UCC School of Applied Social Studies, ISS21) reflecting (in a video at the project close) on the research project and her own experiences cycling in Cork.



## ENGAGEMENT

### UCC Campus Cycle Week

The UCC Commuter Plan Manager has coordinated the UCC Campus cycle Week for many years to date. 2023 hosted many recognisable events such as a free Bike Doctor throughout the week, safety and confident cycling talks and a group cycle out to MTU and back.

It also provides an opportunity to inform the community of the amenities and schemes available to them as students and staff at UCC.



### Erasmus Mundus Joint Masters – Redesigning the Post-Industrial City (MSc RePIC)

Redesigning the Post-Industrial City (RePIC) is a 2 year, MSc jointly designed and delivered by the UNIC alliance that had its first intake in Autumn 2023.

RePIC's vision is to develop a new network of urban thinkers with the capacity to contribute to future-oriented, avant-garde thinking on the revitalisation of the post-industrial city.

The course fosters transformative modes of teaching, research, and learning - responding to the specific challenges and characteristics of post-industrial cities and their increasingly super-diverse populations. Students have the opportunity to study in several post-industrial cities including Cork, depending on what course track they select.

## LEARNING

UCC Modules  
linked to SDG 11

41  
MODULES  
LINKED TO  
SDG 11

# ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



## RESEARCH

### Re-Wind

The building of more onshore and offshore wind farms is crucial in Ireland's decarbonisation journey. However, 11,000 tons of wind turbine blades (WTBs) are due to be decommissioned in Ireland by 2025 alone. And the materials used in the construction of the blades are not biodegradable. Wind turbine blade reuse in civil engineering and other applications is in its infancy, and is not utilized on the larger scale - mainly because there is no information on the current stock of WTBs in Ireland and their mechanical fitness to be reused in second life structures.



A BladeBridge on the Midleton-Youghal Greenway (Co. Cork) made from repurposed WTBs. BladeBridge is a spinout company from MTU and UCC

The project brings together an interdisciplinary team to provide a national digital database (EirBLADE) comprising information that enables repurposing of decommissioned wind turbine blades into second life structures. The work assimilates fundamental structural engineering, novel material science, and life-cycle analysis and will result in a series of protocols that will inform technical standards and regulations enabling sustainable repurposing on a bigger scale.

UCC Publications per  
SDG 12 (2019-2023)



### Ban on Disposable Cups

In January 2023, UCC introduced a ban on all disposable cups and plastic bottles across its restaurants and cafés. Working in collaboration with our catering providers, a deposit return scheme for cups, washing facilities and refill options were introduced. By year end 2023, the equivalent of over 1 million cups were diverted from landfill as a result of the new policy.

This action was done in support of UCC's goal to be a zero waste campus by 2030. In 2023, UCC's new waste contract went to tender with sustainability as 20% of award criteria, including the requirement to support our Zero Waste target.

## OPERATIONS





# ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS



## ENGAGEMENT

UCC is seen as a leader in the area of Green Public Procurement (GPP) and throughout 2023 the University worked to engage a broad range of stakeholders in support of wider implementation of GPP. In May 2023, UCC together with the University's catering service provider KSG, hosted Business in the Community Ireland for their Munster Network Meeting. The event was attended representatives of more than 15 different business in the Munster region, many of which have an international reach. The event focused on how green procurement practices at UCC have embedded sustainability within our catering services and led to innovative initiatives such as "Plastic Free UCC" and the UCC Farm to Fork programme.

The event was part of a broader initiative to share the lessons learned from GPP at UCC, which included the publication of a academic journal article and RTÉ Brainstorm piece highlighting the challenges to implementing these practices in the Public Sector.

### Is the Government climate-friendly when buying goods & services?

Updated / Friday, 21 Jul 2023 12:26



'A commitment to mandatory green public procurement in Ireland through policy is still unclear.'

More from  UCC  
University College Cork, Ireland  
Coláiste na hOllscoile Corcaigh

UCC Modules  
linked to SDG 12

30  
MODULES  
LINKED TO  
SDG 12

### CUBS Executive MBA

Each year, the international study visit is an important element in the UCC CUBS Executive MBA experience - an opportunity for students to put into practice their programme learning. In 2023, students undertook a study visit to Brussels. The trip included a visit to Nike's innovation logistic training centre where students toured Nike's primary distribution centre in Europe and were given an insight into the construction of the building from a sustainability perspective.



*^CUBS Executive MBA Students in Brussels*

The final day saw students visit students visit the KU Leuven Brussels Campus where they undertook a Corporate Sustainability case study on the Samsung Group with the group's Corporate Sustainability Lead. Ensuring sustainability is a key focus of this executive MBA programme means the leaders of some of the biggest and most influential companies both locally and globally will gain a solid understanding of its importance.

## LEARNING

# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

13 CLIMATE ACTION



UCC Publications per  
SDG 13 (2019-2023)

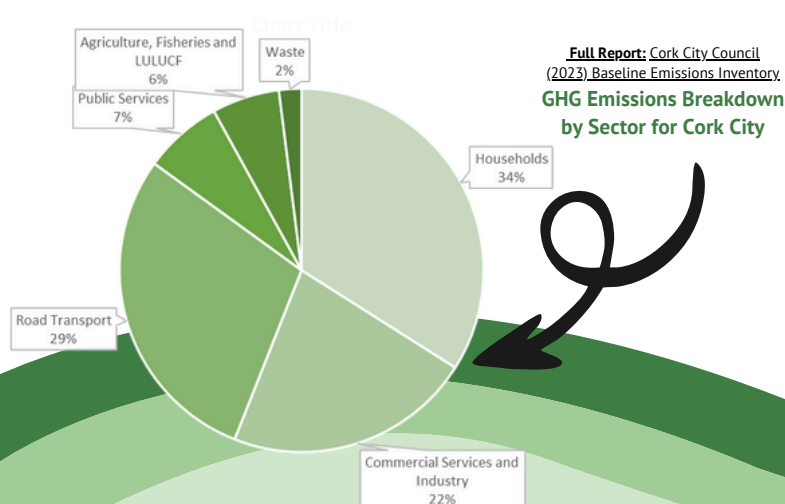


## RESEARCH

### Informing the new Cork City Climate Action Plan

MaREI were commissioned by Cork City Council to prepare a spatially mapped **baseline emissions inventory** for Cork City. One of many reports that were prepared to **inform the DRAFT Cork City Climate Action Plan (2024-2029)**.

The project team was led by Dr Maugerite Nyhan. The report found that Cork City emitted **987kT CO<sub>2</sub>e** in 2016-18. The **Built Environment** and **Road Transport** were the strongest contributors to Cork City's carbon footprint. The scope of the exercise concerns scope 1 and 2 GHG emissions per national guidelines issued by DECC.



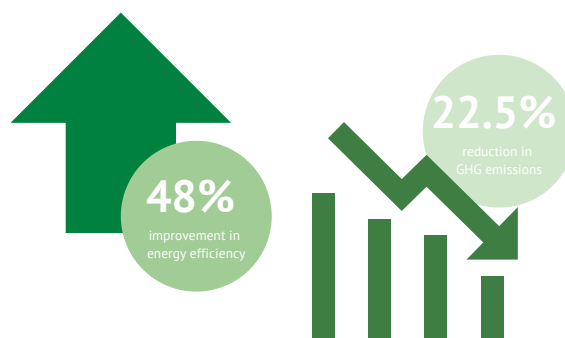
### UCC's Energy Performance and GHG Emissions 2023

UCC is subject to the public sector mandate outlined in consecutive national climate action plans since CAP21. The mandate obligates all public sector bodies, to specifically state their progress in achieving an **absolute** GHG emissions reduction (Scope 1 & 2) by 2030 relative to their baseline years of 2016-18 through annually updated Climate Action Roadmaps. UCC published its updated roadmap in Autumn 2023. The next iteration is expected to be published during late 2024.

By **year end 2023**, UCC achieved a **22.5% reduction** in **GHG emissions** and a 48% improvement in energy efficiency relative to its 2016-18 and 2009 baselines respectively. The reductions can be attributed to a combination of behavioural and infrastructural projects, most notably the retrofitting of buildings across the estate with thanks to Pathfinder funding from the HEA.

## OPERATIONS

Since 2018 UCC has achieved



# TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

13 CLIMATE ACTION



(L) Dr Fionn Rogan outlining the format of the Mock COP, (R) Negotiations in progress

## ENGAGEMENT

### COP 28

As the first Irish University to have observer status on the UNFCCC, UCC has sent an annual President's delegation to the COP meetings since 2021. In 2023, UCC received ten badges; the university sent a delegation of seven staff and students and redistributed three of the badges to MAPA delegates from Columbia, Kenya, and South Africa. The UCC delegation took part in numerous activities and side events, and one member, Maria Arronsen-Storier undertook research on the COP negotiation process while there.

At home, UCC hosted a simulated version of COP to enhance understanding and engagement with this process amongst the UCC community. Dr Fionn Rogan (ERI) led the event, which was organised by UCC Green Campus and the Environmental Research Institute, and supported by UCC Sustainable Futures Lab and UCC Societies.

### *The Climate Crisis and Local Government*

UCC's Adult Continuing Education centre provides a number of Lifelong Learning opportunities related to climate change. A particularly innovative example is the Certificate in Climate Crisis and Local Government, which ran in 2023. This level 7 certificate has been designed specifically for county councillors in local government in Ireland, and covers up to date policies and initiatives such as the Climate Action and Low Carbon Development (Amendment) Act and the Climate Action Plan, amongst other pressing climate related issues.

The course is the only university bearing credit CPD programme of its kind in Ireland offering a recognised qualification in this sector. Its purpose is to provide a unique opportunity for councillors to upgrade and upskill their professional & academic qualifications. The online and field trip component is designed for local government staff to interact with each other with a view to building relationships and networks between participants from across the local government sector in Ireland. The course is coordinated by Belinda Gascoigne and delivered by Mark Kernan.

## LEARNING

UCC Modules  
linked to **SDG 13**

**22  
MODULES  
LINKED TO  
SDG 13**





## RESEARCH

### *Irish Shelf Seabed Geomorphological Map*

The Marine Geoscience group at UCC and the Marine Institute developed the first high-resolution geomorphological map of the entire Irish continental shelf in 2023. The map is the first high-resolution geomorphological map of the entire Irish continental shelf, down to a depth of 200 metres below sea level. This large-scale mapping exercise, funded by the Marine Institute, took advantage of the vast INFOMAR multibeam echosounder dataset, and used a protocol of semi-automated mapping techniques to accurately and rapidly extract seabed features.

Nationally, this detailed geomorphological digital map is intended primarily as a resource to better inform multiple offshore activities and management of the marine environment. The map also acts as a baseline for future studies in marine geomorphology, as it identifies gaps in knowledge and highlights areas that require further work.

### **UCC Facilities and Conservation at Lough Hyne Co. Cork**

Lough Hyne is a semi-enclosed marine lake situated 3 miles west of Skibereen, Co. Cork. It measures just 0.8 km by 0.6 km. The unique habitat hosts an unusual variety of plants and animals, many of which are not found elsewhere on the island of Ireland. The lough was the EU's first designated statutory Marine Nature Reserve in 1981.

UCC has a small research campus at Lough Hyne, run by the School of BEES. The buildings there comprise; the Renouf Laboratory, John Bohane Laboratory and Kitching Laboratory. The ongoing research at the site contributes to the wider body of knowledge to protect unique habitats like Lough Hyne. The campus is also subject to UCC's Biodiversity Action Plan.

## OPERATIONS



Example of how the Irish Shelf Seabed Geomorphological Map v2023 displays in ArcGIS

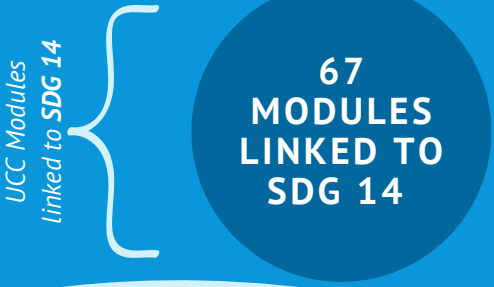


ENGAGEMENT

Blue Connections Conference

Blue Connections: Exploring Society and the Ocean was a short, informal conference during September 2023 that invited participants to explore their connections to oceans, seas, and waters in different ways. The conference employed science, the humanities, and coastal practices in an informal setting to gauge how our diverse engagements with water might be used as the foundations for more harmonious relations with the natural world, and each other.

This event was co-organised by MaREI, UCC and The Dingle Hub. *Blue Connections* is especially timely given international partnerships, such as the **UN’s Decade of Ocean Science for Sustainable Development (2021-2030)** and the **EU’s Mission to Restore our Ocean and Waters by 2030**, that place the ‘marine citizenship’ at the heart of transforming our relationship with our shared oceans and waters.



UCC LLM (Marine and Maritime Law)

UCC’s School of Law offers a unique Masters programme which brings together the best legal expertise in Marine Law in Ireland. It covers a range of legal topics including shipping and maritime law, marine environmental protection, and international law of the sea.

The programme integrates theoretical and practical learning of relevant law modules with marine and maritime activities taking place in Cork, such as marine environmental research, marine renewables, law enforcement at sea, fisheries management, shipping and port activities. This programme is based on flexible workload arrangements and is suitable for both law graduates and marine and maritime professionals alike. The programme also benefits from collaboration with the SFI Research Centre for Energy, Climate and Marine (MaREI), and the Environmental Research Institute.

LEARNING







UCC Publications per  
SDG 15 (2019-2023)



## RESEARCH

### ***New Farmland Biodiversity Education and Research Programme***

An Tánaiste Micheál Martin announced an exciting collaboration between the Munster Agricultural Society (MAS) and UCC at the official opening of the Cork Summer Show 2023. The Munster Agricultural Society are generously providing a philanthropic gift of €375,000 to the Cork University Foundation for the development of a Farmland Biodiversity Education and Research Programme within Agricultural Science at UCC.

Prof. Frank Buckley outlined the benefits of the joint collaborative initiative:

*We are grateful for MAS's support which will allow us to develop an exciting and much needed Farmland Biodiversity programme within Agricultural Science at UCC. It will also allow us to strengthen the delivery of our undergraduate and postgraduate teaching and cutting-edge research activity that will support the future sustainability of Irish grassland agriculture.*

### ***UCC's Pollinator Friendly Landscape Management***

Excluding the university's built footprint, UCC has a campus area of 54 hectares. Our total managed area comprises 29.95 hectares, 31% of which is managed organically (UCC STARS AASHE Report 2022). *UCC's Biodiversity Action Plan (2018-2023)* outlines in detail the variety of habitats managed by UCC. Including riparian woodland, amenity grassland, hedgerows, treelines and flower beds & borders.

In 2017, UCC adopted a no and low-mow approach across all campus sites, with the exception of the Main Quad and President's garden. The approach has seen a thriving of native wildflowers. The impact on local biodiversity is being assessed through a 2023 funded Green Campus Living Lab project with researchers at the School of BEES.

## OPERATIONS

Low mow spaces blooming along the path to the Ellen Hutchins Building (ERI) UCC





## ENGAGEMENT

### Nature Forum Cork

Following a public meeting in Cork during Summer 2022, entitled ‘Making Space for Nature’, a new Nature Forum was established comprised of city stakeholders engaged on supporting biodiversity in Cork City. Membership comprises the Biodiversity Officers of Cork City Council, Green Spaces for Health, UCC Green Campus, MTU Green Campus, Cork Environmental Forum, LawPRO and the HSE (SláinteCare).

Meetings occur monthly and the Forum organises a number of events for example a talk on “Why Urban Hedgerows Matter”, which was held in March 2023. Another achievement of the Forum is publishing a guide on how to draft an environmental-conscious submission to a public consultation on a policy or project.



UCC Modules  
linked to **SDG 15**

48  
MODULES  
LINKED TO  
SDG 15

### Irish Tree Explorers Network (ITEN)

The Irish Tree Explorers Network (ITEN) project was awarded funding by the SFI’s Discover Programme in 2023. The project will through 2025. ITEN will create a national network of living tree collections which will engage the general public with important STEM topics. The project also includes partners such as the OPW and Tree Council of Ireland.

ITEN will use an interdisciplinary approach to engage participants with STEM topics. The project combines plant science and horticulture with the humanities to maximise ‘entry points’ via which prospective participants can be encouraged to engage. Welcoming the new funding, Dr Eoin Lettice said:

“We are excited that SFI continue to see the value in our work and have awarded significant funding to bring the ‘Tree Explorers’ concept to a much wider audience.”

## LEARNING



## RESEARCH

### ***Access to Environmental Information***

In January 2023, Professor Aoife Daly at the School of Law in UCC was awarded a €2m ERC grant to analyse the growing trend of child and youth climate activism, particularly how they are claiming and asserting their own rights under the UN Convention on the Rights of the Child.

This innovative and exciting research project will also explore what the consequences of youth activism could be for international human rights law, and societies more broadly. The project seeks to make leaps in what we know and understand about children's rights, the ability of children to claim their own rights, as well as their ability to transform the world.

Professor Daly is part of the Global Network of Human Rights and the Environment and part of the team running Ireland's biodiversity youth citizens' assembly.

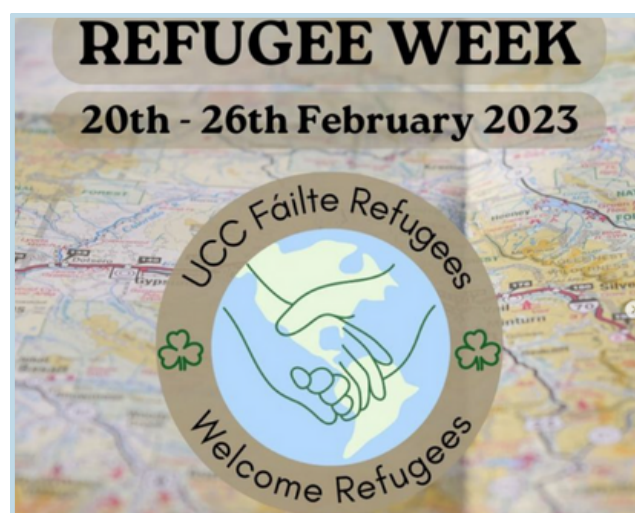
### ***University of Sanctuary***

In 2018, UCC was awarded University of Sanctuary status by *Places of Sanctuary Ireland*. A recognition that the university encourages learning about what it means to seek sanctuary and embeds a welcoming culture to students and staff seeking sanctuary in Ireland.

UCC's University of Sanctuary scholarship has been open for applications since 2018 with over 150 students commencing studies at UCC, be it undergraduate degree, part time course or evening class. Each student receives a fee waiver and some also receive a monthly bursary to help support them during their degree.

UCC Refugee Week is an annual highlight in the university calendar, and 2023 was no different. 19 events took place across the UCC community.

## OPERATIONS



ENGAGEMENT

Advocating for Faster Climate Action

Our UCC community are actively engaged in projects and research with significant societal and policy impact, be it locally, nationally or internationally.

Professor Áine Ryall is co-director of the Centre for Law and Environment in UCC. She is currently chair of the UN ECE Aarhus Convention Compliance Committee having been elected in 2021. In 2023 Professor Ryall was invited to give expert evidence at the Oireachtas’ Climate Committee.

Professor Ryall informed the committee that lack of political will, prioritisation, funding, access to justice, and enforcement has led to the degradation of nature and the environment in Ireland. She added that in other countries explicit constitutional rights for nature tend to bring “greater visibility” and “tends to support more robust environmental laws and more robust environmental policies”.

Other UCC academics that presented to the committee in 2023 included Professors Brian O’Gallachoir and Hannah Daly and Drs Fionn Rogan and Paul Deane.

UCC Modules  
linked to SDG 16

89  
MODULES  
LINKED TO  
SDG 16

UCC Climate Action Leadership Training

The updated Public Sector Mandate in CAP23 requires all Irish public bodies to “ensure all senior management complete a climate action leadership training course in 2023”. The Office of Sustainability and Climate Action worked with ERI colleagues and UCCC SU to develop a bespoke offering for the ULT. Delivered across two 2-hour sessions in November 2023.

The second session contained an interactive workshop using a horizon scan methodology. Some of the workshop’s findings included:

- The strong potential for “seed funds” to stimulate transformative change projects was highlighted.
- The need for greater alignment between innovation and sustainability were also discussed.
- Other potential ideas included; a restriction on campus growth, a four day campus and a UCC owned wind farm.



LEARNING



# STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

17 PARTNERSHIPS FOR THE GOALS



UCC Publications per  
SDG 1-16\* (2019-2023)



## RESEARCH

### SDSN Ireland

2023 saw the launch of Sustainable Development Solutions Network (SDSN) Ireland which is co-hosted by UCC and Queen's University Belfast. SDSN Ireland is an all-island network focused on developing context-specific solutions and mobilising local action for the SDGs. Engaging universities, research centres, local authorities, NGOs, civil society organisations and policymakers, the Network would bring the latest research to bear on producing solutions to the challenges within the SDGs and would seek to empower individuals and organisations to achieve impact through education and engagement.

In 2023, SDSN Ireland contributed a chapter to Ireland's Voluntary National Review to the UN HLPF in New York.

Dr John Barimo joined the UCC Office of Sustainability and Climate Action as the manager of SDSN Ireland.



\*Data specific to SDG 17 is not available from SciVal. The sum of SDG 1-16 is used as a proxy in SDG 17's absence.

### Launch of new UCC Sustainability and Climate Action Plan

UCC's Sustainability and Climate Action Plan (2023-2028) was launched on 30th June 2023 by Minister for Finance, Michael McGrath TD. Succeeding the university's prior Sustainability Strategy (2016), the plan sets out three high-level goals:



Net Zero Carbon  
Campus by 2040



Zero Waste  
Campus by 2030



STARS Platinum  
Institution in 2028

The plan's 62 actions are spread across 9 themes including Sustainability Citizenship, Research and Procurement.

Speaking at the launch, UCC President Professor John O'Halloran said:

*"We have set ambitious target as time is simply running out. We need to work harder and faster to for the future of this planet and our students. The higher education sector must act to inspire change..."*

## OPERATIONS



ENGAGEMENT

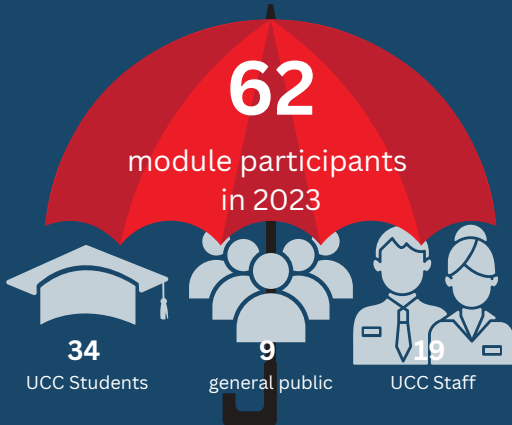
Sustainable Futures Forum

UCC Sustainable Futures project hosted the inaugural Sustainable Futures Forum on November 27th, 2023. Coinciding with the COP28 global climate negotiations, the Sustainable Futures Forum was a high-level forum for discussing solutions to critical sustainability and climate issues relevant in a national and international context.

Speakers included Dr Marguerite Nyhan (UCC), Kevin O’Sullivan (Irish Times), Miriam O’Callaghan (RTÉ), Robert O’Mahony (Logitech), President Mary Robinson (Chair of The Elders), Dr Julie Newman (MIT) and Dr Vivienne Patterson (HEA). Mrs Robinson was clear in her remarks that to keep to 1.5 degrees of warming, the worlds leaders would need to “phase out fossil fuels and scale up clean energy”.



Dr Marguerite Nyhan (L),  
President Mary Robinson (R)



UW0005 Sustainability

The University-Wide module (UW0005 / CPD1640) in Sustainability, a recipient of the President’s Award for Excellence in Teaching, celebrated it’s 8th year in 2023.

The module is open to UCC students for additional credit and UCC staff & the public for either a digital badge or interest only.

The objective of the module is to provide participants with a broadly based interdisciplinary introduction to sustainability as a foundation for 'sustainability citizenship' and taking both a global and local perspective.

LEARNING

UCC Modules  
linked to SDG 17



# KEY ACTIONS FOR 2024



RESEARCH

- Progress global research leadership through UCC Futures Sustainability Institute.
- Publish research on UCC's innovative sustainability practice.
- Drive external sustainability through engaged research via SDSN Ireland.



LEARNING & TEACHING

- Continued rollout of Digital Badge for Teaching with the **SDG Toolkit**. And deliver another version via the SDG4U project.
- **Carbon Literacy Training** to be moved completely online and be delivered as a UCC Digital Badge.
- Support new UCC ESD Officer.



CLIMATE ACTION

- Prepare for improvement for UCC's next reassessment with AASHE STARS in 2025.
- Retrofit/Energy projects; Enterprise Centre (Phase 2).
- Complete updated full carbon emissions inventory.



SUSTAINABILITY CITIZENSHIP

- OSCA proceeding with Eco2Schools project, one deliverable of which is the development of a *Social Value Framework*.
- Continue fostering the green campus dialogue across the UCC community, both in existing middle-out structures and other new innovations.



FOOD, HEALTH & WELLBEING

- Commence UCC Green Campus-UCC Healthy Campus collaborations.
- Establish on campus anaerobic digester trial at North Mall.
- Continued support and expansion of Green Shoots programme.



LANDSCAPE, HERITAGE & NATURAL RESOURCES

- Development of updated UCC Biodiversity Action Plan.
- Expansion of UCC Biodiversity Trail.
- Expand engagement with Cork City Council on Biodiversity related topics and events.



# KEY ACTIONS FOR 2024



## WASTE REDUCTION & CIRCULAR ECONOMY

- Procure a reverse vending machine for the UCC restaurant.
- Monitor the impact of the single use coffee cup ban.
- Continue working with our suppliers to find more sustainable alternatives to packaging.



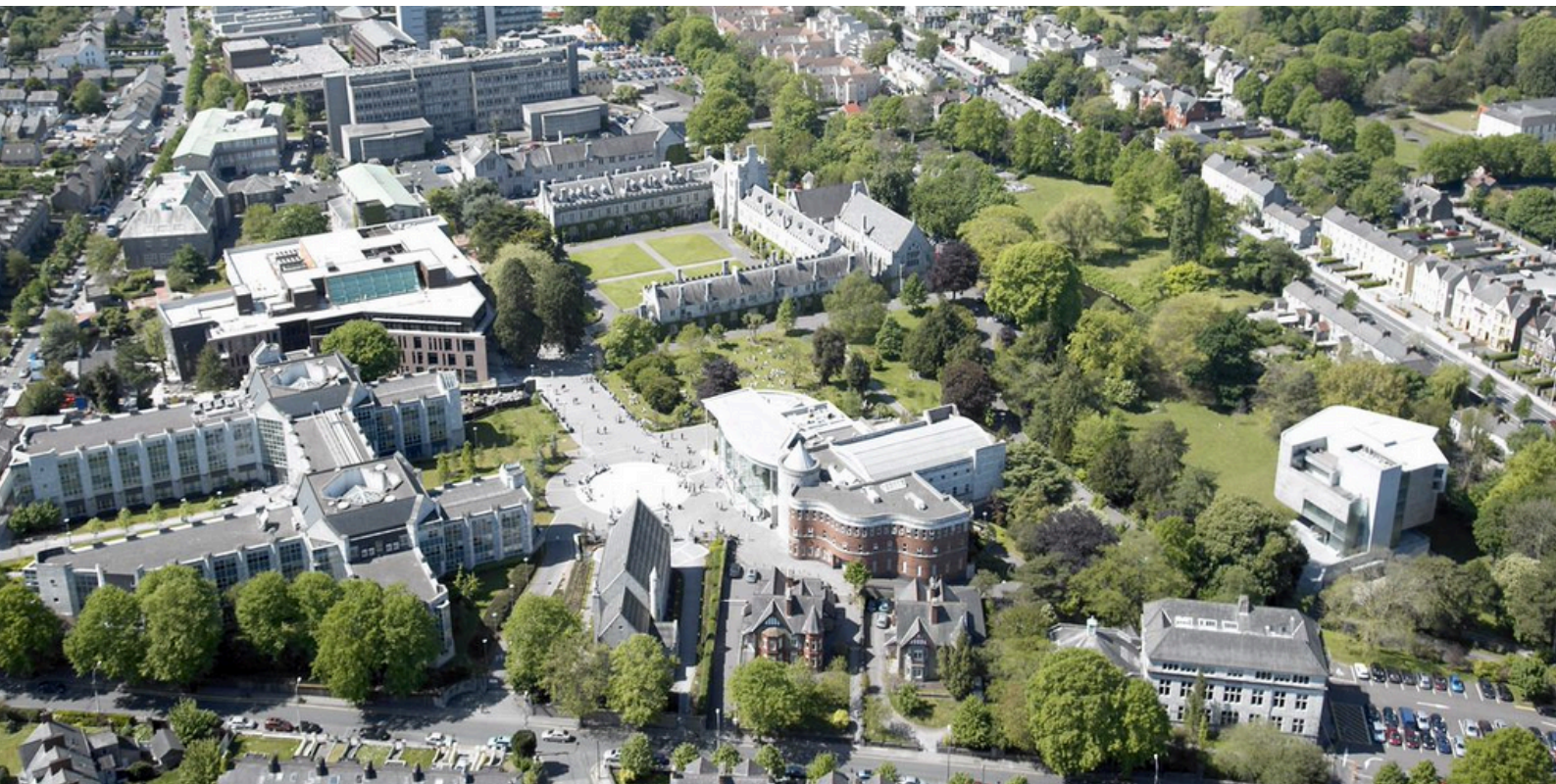
## PROCUREMENT & CONTRACTS

- Continue embedding sustainability criteria into procurement & contracts.
- Engage with national networks to learn from and share best practice and contribute to national policy development.



## COMMUTING & ACTIVE TRAVEL

- Continued development of updated UCC Commuter Plan, expanding on-campus facilities for cycling & active travel.
- Commence phase 1 pathfinder sustainable transport project bid with MTU, Cork ETB and Kerry ETB.
- Continue advocating for improved public transport services and infrastructure (e.g. BusConnects, CACR, Cork Luas).



# APPENDIX 1 - UCC RESEARCH PUBLICATIONS BY SDG (2019-2023)



	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7
No. IE Publications (2019-2024)	666	1378	18177	2456	1374	1329	3700
No. UCC Publications (2019-2024)	94	177	2393	285	135	141	641
UCC Publications as % of IE Publications (2019-2024)	14.1%	8.5%	13.2%	11.6%	9.8%	10.6%	17.3%
Rank among IE Universities by No. Publications (2019-2024)	#3	#4	#5	#5	#5	#4	#2
No. UCC Publications (2023)	26	45	510	87	47	26	130
No. UCC Publications (2022)	19	34	506	64	26	29	133
No. UCC Publications (2021)	22	37	584	54	31	30	122
No. UCC Publications (2020)	12	28	454	38	16	40	128
No. UCC Publications (2019)	15	33	339	42	15	16	128

Sourced using SciVal.  
All data correct as of 10/05/2024.

# APPENDIX 1 - UCC RESEARCH PUBLICATIONS BY SDG (2019-2023)



SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17*
1904	2447	2317	1872	1725	2259	1375	1194	2739	47912
207	390	239	162	192	346	291	185	335	6213
10.9%	11.3%	10.3%	8.7%	11.1%	15.3%	21.2%	15.5%	12.2%	13%
#3	#3	#4	#4	#4	#3	#1	#3	#4	#4
48	101	74	27	42	73	37	44	80	1397
43	94	57	40	36	84	57	31	60	1313
52	74	44	38	34	84	71	37	75	1389
31	63	34	32	43	55	62	45	67	1148
33	58	30	25	37	50	64	28	53	966

Sourced using SciVal.  
All data correct as of 10/05/2024.

\*Publications linked to SDG 17 not currently available via SciVal.  
Figures for SDG 17 in this report are the sum of SDGs 1-16 as per the method used by the University of Manchester in their [annual sustainability report](#).



# APPENDIX 2 - NO. UCC MODULES FOCUSED AND RELATED TO EACH SDG



	Focused	Related	Any Link		Focused	Related	Any Link
SDG 1	4	11	15	SDG 10	11	75	86
SDG 2	6	23	29	SDG 11	12	29	41
SDG 3	4	84	88	SDG 12	9	21	30
SDG 4	3	20	23	SDG 13	8	14	22
SDG 5	6	22	28	SDG 14	9	58	67
SDG 6	1	13	14	SDG 15	7	41	48
SDG 7	1	29	30	SDG 16	10	79	89
SDG 8	5	35	40	SDG 17	3	17	20
SDG 9	5	34	39	Total	104	605	709

Sourced using data from UCC's most recent recertification to STARS AASHE in 2022 (Gold Award).

# APPENDIX 3

## UCC WATER CONSUMPTION



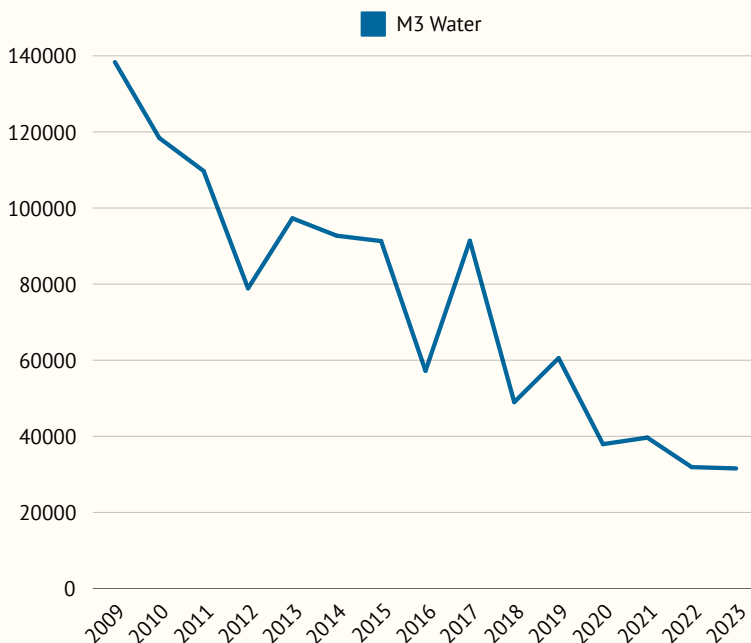
Water consumption across the estate declined dramatically since the beginning of the Green Campus programme. In 2019 the Estates office became a Certified Water Steward with the help and guidance of Irish Water's "Water Stewardship Programme".

Through the program the Estates office developed a water charter, outlining 12 priority areas for the University to take action on. Actions range from creating awareness of water conservation across the University, installation of additional water metering and improved operational controls across the Estate.

The main consumers of water are the cafes, restaurants, toilets systems, drinking fountains, research labs and deionized water generation plants. In 2019, a comprehensive study of water usage across campus was undertaken. This study indicated that out of 102 separate water accounts, 6 consumed over 81% of our annual water use. A focus was then placed on mapping out the water users in those buildings and implementing water conservation measures.

Some initiatives completed include:

- Embedding water conscious behaviour in the campus community through education & awareness.
- Upgrading to water efficient facilities including sensor technology & dual flush.
- Installation of water flow restrictors on tap outlets and sensor technology.
- Comprehensive underground leak detection & remediation program.
- Installation of metering and alarming systems to identify any leakage, excess consumption.
- Auto water shut offs to match building opening times.
- Use of grey water reuse systems for toilet flushing.



# APPENDIX 4 - UCC ENERGY AND GHG EMISSION STATS



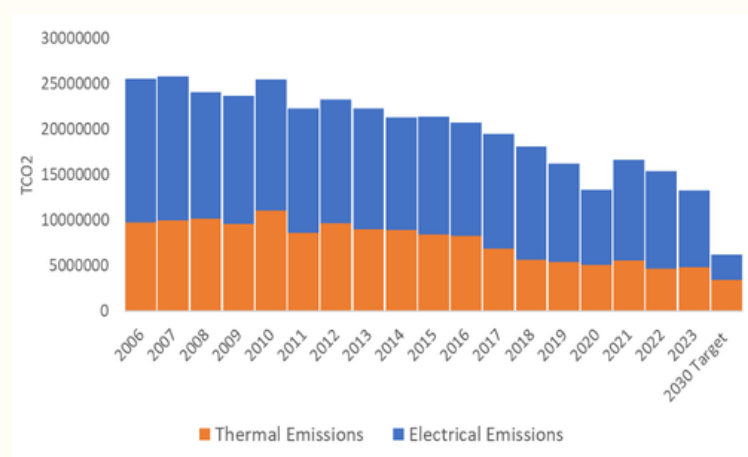
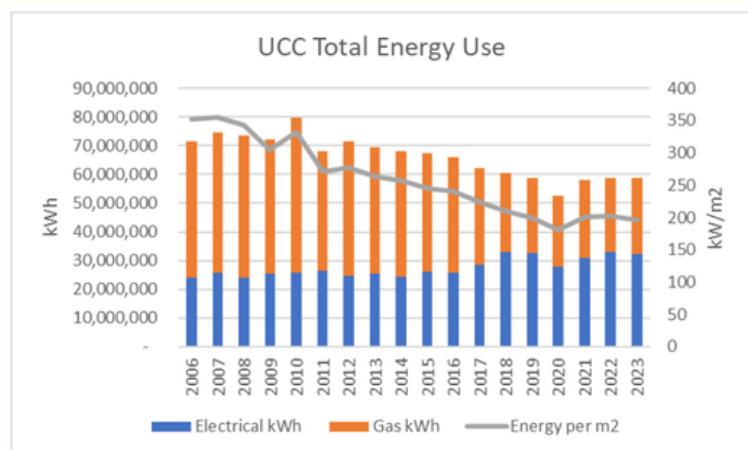
2023 saw a 3% improvement in energy efficiency and a 2% reduction in carbon emissions from 2022 levels. This was in spite of growth across the estate with additional buildings including the Crow's Nest student accommodation and Mardyke squad gym.

Overall, the University has achieved an 11% reduction in energy consumption and a 32% reduction in absolute carbon emissions, based on the 2016-18 baseline. UCC is well on it's way to achieving it's 2030 energy efficiency target of 51% improvement, currently standing at 48%.

Phase 1 of the Enterprise Centre Deep Retrofit was completed in 2023, with Phase 2 kicking off in the summer of 2024. The UCC Pharmacy decarbonisation project was also awarded funding in 2023 and is expected to be completed over the summer of 2024. The project is expected to deliver a 77% reduction in the building's carbon emissions through the electrification of its heating a hot water supply. This will reduce UCC's overall carbon footprint by 4%.

2023 also saw the official opening of the Mardyke Arena's new Squad Gym. Within the design process, Low Carbon Analysis software was used to compare building fabric options and minimise embodied carbon in the proposed construction. The 420m2 gym was built using materials with the lowest carbon content possible, including a timber frame construction and glulam beams.

Of the projects required to achieve the University's 2030 targets, 2 are complete, with 5 more active, 2 in design stage and 3 in scoping stage. Almost €4million has been secured to date from the HEA for these works. It is anticipated that 2024 will see a 2.6GWh reduction in energy use through the continued rollout of decarbonisation projects and behavioural change campaigns.





# APPENDIX 5

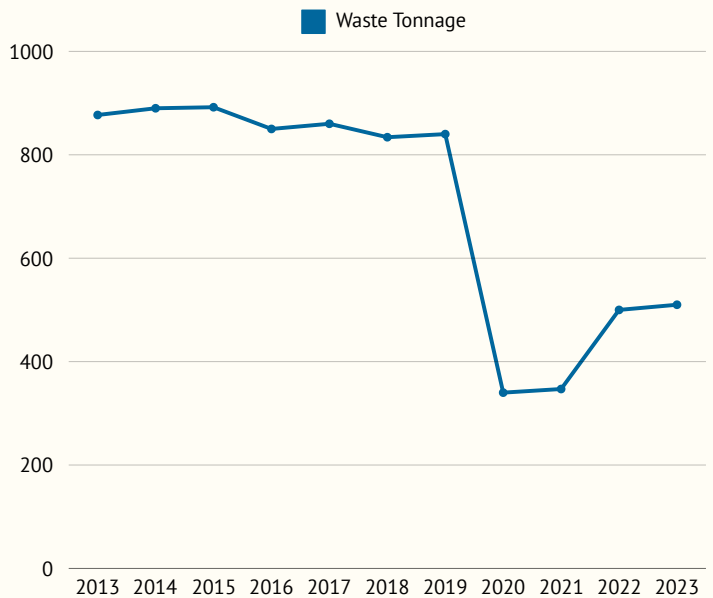
## UCC WASTE STATS



Having concentrated on waste initiatives for over a decade, the Green Campus programme has seen a significant reduction in the total amounts of waste produced on campus.

The University saw a significant reduction in waste volumes as a result of the Covid lockdown, but the amounts have not recovered since the full reopening. This can be attributed to a number of factors including:

- UCC's new sustainable print management system and policy.
- The use of the Positive Carbon AI tool in KSG Kitchens, resulting in a significant reduction in food waste.
- Installation/upgrading of 34 water refill stations.
- Installation of FreshCup mini dishwashers for staff and students to sanitise their own individual reusable cups.



While the Plastic Free UCC initiative would not be expected to have a large effect on overall weight of waste (these items would be among the lightest materials entering the waste stream), it has impacted recycling rates, from 49% in 2022 to 57% in 2023.

### Changes in Dominant Waste Streams (2023)

**1.5 MILLION**  
**COFFEE CUPS SAVED**  
**FROM LANDFILL**



**235,000**  
**PLASTIC BOTTLES**  
**AVOIDED**



**73%**  
**REDUCTION IN**  
**PRINTING**



**18%**  
**REDUCTION IN**  
**FOOD WASTE**



# APPENDIX 6 - UCC COMMUTER AND BUSINESS TRAVEL DATA

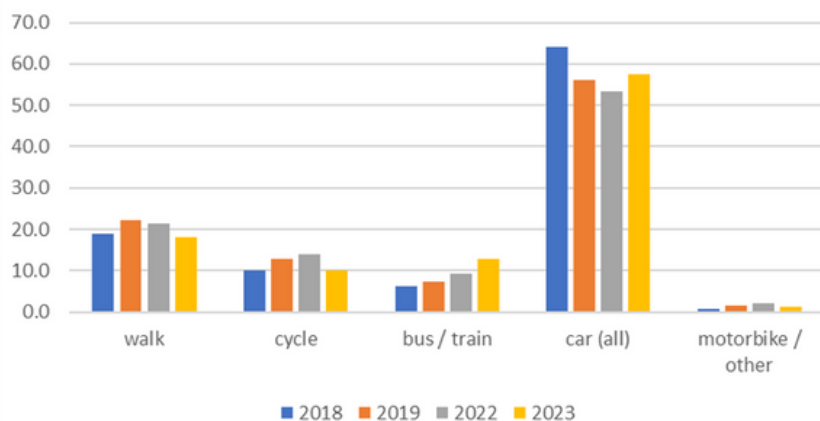


UCC's annual travel survey was conducted in March 2023 by the Commuter Plan Manager. It tracks the breakdown of the modes of transport used by persons commuting to UCC. This was the first UCC travel survey since 2019 to achieve a reliable sample of both staff and students\*.

Breakdown of the 2023 survey sample size

	Sample Size	Sample Size as % of Total Cohort
Staff	882	28%
Students	1942	8%

STAFF Modal Share 2018-2023



Change(s) in Car Travel 2019-2023.

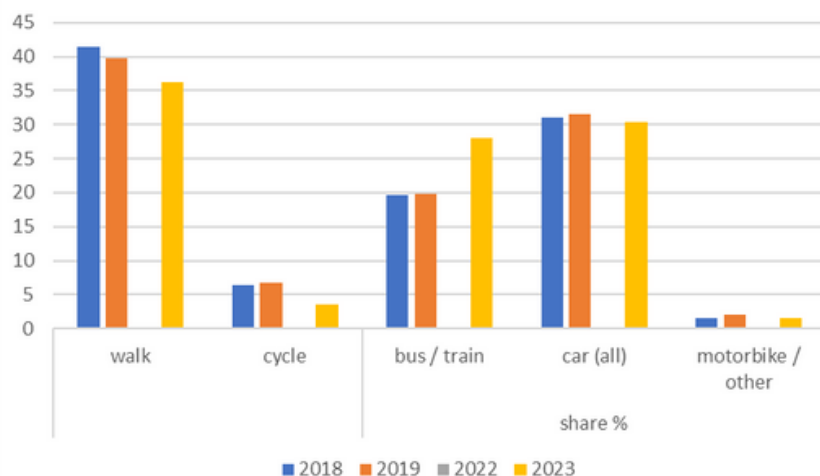
Students:

- Share of drivers remains the +/- same.
- Increase in car passengers (6% to 8.5%).

Staff:

- Share of drivers similarly stable since 2019.
- Doubling of car passengers (2.6% to 5.1%)

STUDENTS Modal Share 2018-2023



Changes in Public Transport Use (2019-2023). Concurrent to TFI's national fare reduction.

Students:

- Increase in bus passengers (16% to 21%).
- Increase in rail passengers (4% to 6%).

Staff:

- Bus passengers more than doubled (4% to 8.8%).

Amongst staff working from home (WFH) has become a substantial factor in commuting habits. Reflected in part by the lower no. car drivers and passengers compared to 2019.

\*No surveys were run in 2020 or 2021 due to COVID-19. 2022 data is only available for staff as the sample size for students was too low to be reliable.

