Sustainability Report 2024



SUSTAINABLE DEVELOPMENT GOALS

UNIVERSITY OF LIMERICK
OLLSCOIL LUIMNIGH

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Acting President's foreword

At University of Limerick (UL), sustainability is not a peripheral ambition; it is **a defining value that shapes our identity, our strategy and our daily practice**.

As a university committed to excellence in education, research and civic engagement, we recognise our responsibility to lead by example in addressing the global challenges of climate change, inequality and environmental degradation. Our vision is clear: to be a university where sustainability is embedded in every decision, every discipline and every dialogue.

This university was born from the will of the people to transform a region and deliver a public good. Our mandate remains the same today as it was given to us over 50 years ago, and we are committed to delivering that excellence.

Over the past 12 months, UL has made remarkable progress in advancing this vision for sustainability. From pioneering research in renewable energy and sustainable agriculture to student-led initiatives that promote biodiversity and circular economy practices, our community has demonstrated innovation, resilience and purpose. The launch of the UL Food Philosophy, the expansion of the Student Sustainability Challenge, and our leadership in national and international sustainability networks are just a few examples of how we are translating ambition into action.

While UL goes through a period of change, we remain steadfast in our ambition, and this progress has been driven by collaboration. Our students, staff, researchers and external partners have come together to co-create solutions that are both locally grounded and globally relevant. Our partnerships with community organisations and industry have seen the power of collective effort in shaping a more sustainable future.

Of course, the journey has not been without its challenges. Navigating complex systems, securing resources and embedding sustainability across diverse domains require persistence and adaptability. We have responded by strengthening our governance structures, investing in capacity-building, and fostering a culture of experimentation and learning. These strategies have enabled us to remain agile and accountable in the face of evolving environmental and societal demands.

Looking ahead, our commitment remains steadfast. We will continue to align our goals with the UN Sustainable Development Goals (SDGs), Ireland's Climate Action Plan, and the needs of our campus and region. Our priorities include deepening our impact in climate action, enhancing equity and inclusion, and accelerating the transition to a circular economy. We will also expand our educational offerings to ensure that every UL graduate is equipped to lead in a sustainable world.

I invite every member of our university community to remain engaged, curious and courageous. Sustainability is not a destination; it is a shared journey. Let us continue to innovate, collaborate and act with purpose, knowing that our efforts today will shape the legacy we leave for generations to come.



Professor Shane Kilcommins
Acting President
University of Limerick



Director's foreword

This year's sustainability report reflects **UL's deepening commitment to a fairer, healthier and more sustainable future**.

It also underlines the pivotal role of the Centre for Sustainable Futures and Innovation in making that commitment real. The Centre convenes people and ideas, links research to practice and supports the initiatives that bring sustainability to life across our campus and region.

Progress in 2024 has been driven by collaboration. Our students, staff and partners have advanced work that improves wellbeing, strengthens inclusion and accelerates climate action. What is most evident throughout this report is that sustainability here is not an abstract ambition; it is a daily practice that shapes how we learn, work and engage with our communities.

I want to acknowledge the team that makes this possible: Vicky Kelly, Engagement and Operations Manager, whose steady leadership connects strategy to delivery and keeps our work grounded and coherent; Una McInerney, Mission Lab Portfolio Manager, who turns ideas into testable experiments and helps scale what works; Leianna Padgett, Sustainability Funding Officer, who builds the partnerships and resources that enable impact; and Elisa Minoue, Student Coordinator, who channels student energy and creativity into meaningful action across UL. Their dedication and professionalism are central to the Centre's contribution and to the achievements documented in these pages.

The momentum captured in this report cannot be left to chance. If UL is to meet its obligations to students, society and the planet, sustainability must be embedded at the heart of our governance, strategy and operations. That requires clear leadership, resourcing and accountability from the highest levels of the University. The work outlined here demonstrates both the scale of what is possible and the scale of responsibility that now rests with UL to carry this forward with urgency and commitment.



Andrea Deverell
Director, *Centre for Sustainable Futures and Innovation*

Student Sustainability Coordinator's foreword

Now more than ever, we need to **empower students to envision and build a sustainable future**.

As the Student Sustainability Coordinator at UL, I am thrilled to witness the incredible strides we are making towards a more sustainable future. Our journey is driven by the passion and dedication of our students, who are not only learning about sustainability but also actively implementing innovative solutions to the challenges we face.

In these times of unprecedented environmental change, it is more important than ever to empower our student community to think critically and act responsibly. Being new to the role, which is housed under the Centre for Sustainable Futures and Innovation, I quickly learned the weight that a university carries in students' mind in terms of fostering sustainable developments. No matter the field of study, age or background, our diverse and curious students are eager to engage in forward-thinking and innovative practices. Their commitment and passion for sustainability are truly inspiring.

Examples of this can be seen through the UL Student Sustainability Challenge, for which 19 applications were submitted in 2024, representing every faculty at UL. Aligned with their projects, the students' proposals not only enhance their educational experience but also contribute to the achievement of the UN SDGs. The challenge provides a platform for students to gain real-world experience, collaborate with mentors and develop practical solutions to sustainability issues.

Students also get to explore sustainability through various societies, Mission Lab workshops, the Student Leadership for Sustainable Development programme (previously known as Global Leadership for Sustainable Development), Science Week, the campus clean-ups hosted by Student Life and the Postgraduate Students' Union (PSU), and many other workshops and activities that you will encounter throughout this report.

It is truly heart-warming to see the extent to which students are passionate about and dedicated to creating a better world. As we continue this journey together, I am confident that the innovative spirit and collaborative efforts of our students will lead to meaningful and lasting change. Let us celebrate their achievements and support their endeavours, knowing that they are the architects of a brighter, more sustainable tomorrow.



Elisa Minoue
Student Sustainability Coordinator
Centre for Sustainable Futures and Innovation



1 NO POVERTY

End poverty in all its forms everywhere.

Promoting health and wellbeing in Irish HEIs

In a major advancement for the Healthy Campus movement, the launch of a new online programme entitled 'Supporting a Whole Campus Approach to a Health Promoting University' marked a significant milestone in the promotion of health and wellbeing across Irish higher education institutions (HEIs). Led by a consortium of national universities and coordinated by the Higher Education Authority (HEA), this initiative aims to equip campuses with the knowledge and tools needed to support health at personal, population and planetary levels.

The programme is the result of a collaborative effort within the national Healthy Campus network, spearheaded by Caroline Mahon. Institutions including UL, University College Dublin (UCD), University College Cork (UCC), Royal College of Surgeons in Ireland (RCSI), Atlantic Technological University (ATU), Technological University Dublin (TUD) and Trinity College Dublin (TCD) participated in designing the course, with TCD coordinating. The consortium's proposal was awarded €50,000 by the HEA and the National Forum for the Enhancement of Teaching and Learning in January 2024.

The facilitated online programme runs over six weeks during the autumn semester. It offers a blend of independent learning, live sessions, peer activities and case studies of successful Healthy Campus initiatives. Participants who complete the programme will earn a digital badge from the National Forum for the Enhancement of Teaching and Learning, certifying their expertise in fostering health-promoting campuses.

UL is playing a pivotal role in shaping the programme's content. Showcased in Week 2, the UL Food Philosophy session features a video illustrating the University's collaborative efforts with stakeholders on and off campus to promote accessible, affordable, inclusive and sustainable food options. This initiative reflects UL's commitment to fostering a campus environment that supports holistic health and wellbeing.

The University's leadership extends further into the programme in Week 3 when it leads a session that emphasises the importance of context and settings in designing health initiatives. Entitled 'What Are Our Common Needs and What Makes Our Campus Unique?', this session highlights the balance between common goals, such as supporting personal, population and planetary health, and the need for tailored approaches to address each campus's unique challenges. Practical resources and insights are provided to assist participants in overcoming common obstacles faced by Healthy Campus initiatives.

Underscoring the growing global interest in health-promoting campuses, the programme's inaugural run attracted 73 participants, including international registrants. In addition to the core six-week course, participants have the option of enrolling on an additional three-week module to achieve facilitator status, enabling them to guide similar initiatives in their own institutions.

This project represents a significant step forward for the Healthy Campus movement in Ireland, drawing on the expertise of institutions and individuals who are leading the charge in promoting health and wellbeing across educational settings. The inclusion of international participants promises a rich exchange of ideas and practices, fostering a collective commitment to advancing health for people, places and the planet.

Appreciation and thanks go to the following people for their expert input: Andrea Deverell (Centre for Sustainable Futures and Innovations, UL), John O'Rourke (Chief Operating Officer, Plassey Campus Centre Group, UL), Ronan Cahill (President, UL Student Life, UL), Catherine Norton (Associate Professor in Sport & Exercise Nutrition and Deputy Co-lead, Healthy UL) and all other contributors and stakeholders.

As Cohort Two of GLSD embarked on their sustainability journey, they carried with them the determination to become change agents in a rapidly evolving world. Through their collective efforts and commitment to sustainability, they sought to inspire others by driving positive change and creating a more equitable and environmentally conscious future.

Student-led Sustainability

Forging sustainability champions: Cohort Two of GLSD set sail on a path of discovery

On Tuesday, 6 February 2024, UL launched Cohort Two of the Global Leadership for Sustainable Development (GLSD) programme. With students representing 10 home institutions across Asia, Europe and North America, Cohort Two embarked on a transformative journey to explore the complexities of sustainable development and drive positive change in the students' communities.

Comprising 10 students from diverse cultural backgrounds and academic disciplines, Cohort Two brought a wealth of perspectives and experiences to the table. From environmental enthusiasts to social advocates, all participants shared the common goal of advancing sustainability principles in their communities.

Over the course of seven weeks, Cohort Two engaged in a dynamic learning journey designed to deepen their understanding of sustainable development. Through lectures, discussions and site visits led by expert guest speakers, students explored systemic approaches and challenges to sustainability across the economy, environment and society. They also worked in interdisciplinary teams to co-create student-led sustainability projects aimed at driving tangible impact on campus.

As Cohort Two of GLSD embarked on their sustainability journey, they carried with them the determination to become change agents in a rapidly evolving world. Through their collective efforts and commitment to sustainability, they sought to inspire others by driving positive change and creating a more equitable and environmentally conscious future.

Giving Voice

Sustainability is about finding a balance between human progress and the limits of nature's resources. Through my journey in energy harvesting research, I've witnessed how innovation can empower ecosystems instead of exhausting them. True sustainability goes beyond efficiency – it demands endurance, respect and regeneration. It means designing technologies that give back more than they take and ensuring that future generations inherit a thriving planet. Every responsible choice we make today shapes a healthier, more resilient world for tomorrow.

Nouman Ghafoor
Doctoral Researcher, Faculty of Science and Engineering



2 ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

The UL Food Philosophy: A framework for accessible, affordable, inclusive, sustainable and nutritious food practices

University food and nutrition philosophies or policies are essential for improving the food environment and enhancing health outcomes for students and staff. As one of the first Irish universities to adopt a campus-wide food philosophy and as evidenced in the project's report (by Associate Professor Catherine Norton, Food, Diet & Nutrition Research Group; Health Research Institute, UL; Andrea Deverell, Centre for Sustainable Futures and Innovations, UL; John O Rourke, Chief Operating Officer, Plassey Campus Centre Group, UL; and Ronan Cahill, President, UL Student Life), UL aimed to foster a commitment to accessible, affordable, inclusive, sustainable and nutritious food practices across the campus.

The development of the UL Food Philosophy involved collaboration between stakeholders from various disciplines, including nutrition, sustainability, campus services, student welfare and the broader campus community. The project team comprised staff and student representatives and experts in sustainable food systems. Town hall meetings, focus groups and consultations with staff, students and local suppliers informed the creation of a framework that reflects the needs and values of the campus. The project ran from January to May 2024, ensuring a participatory design process rooted in real-world applications.

The UL Food Philosophy includes core values, guiding principles, a checklist for potential food partners and a call to action for the campus community. It outlines key principles for food-related practices across the University, including sourcing local and sustainable ingredients, promoting plant-based diets, reducing food waste and ensuring access to affordable, nutritious meals. It also highlights cultural inclusivity, providing guidelines for accommodating diverse dietary needs. The formal philosophy was published and integrated into campus food services, health promotion initiatives and sustainability programmes.

The UL Food Philosophy establishes a comprehensive framework that integrates health, sustainability and inclusivity into UL's food environment and promotes future food system initiatives through collaboration and community engagement. It serves as a model for other HEIs looking to implement sustainable food policies that address both nutritional needs and environmental impacts.

The implementation of the framework aligns with Ireland's national goals for sustainability and food security. Furthermore, by promoting health, sustainability and equitable access to nutritious, culturally appropriate food, the UL Food Philosophy supports SDGs 2, 3 and 12.

Tackling food poverty: Addressing nutritional inequality through community engagement

As part of Research Week 2024, UL intensified its efforts to combat food poverty, recognising it as a pressing issue affecting both local communities and broader society. Through a panel discussion led by Professor Eoin Devereux, Co-Director, Centre for the Study of Popular Culture and Popular Music, the panellists discussed some of the root causes of food insecurity across Irish communities. Presentations from experts in nutrition, social policy and community development shed light on the multifaceted nature of food poverty and its impact on health, education and social inclusion.

One of the key outcomes of the seminar was highlighting the services and initiatives across regional organisations working to alleviate food poverty on a daily basis. Initiatives included the expansion of community gardens, implementation of educational workshops on nutrition and budgeting, and partnerships with local food producers to ensure affordable access to healthy food options. Panellists included Yvonne Fleming, Senior Manager for Community Services, CROSSCARE Ireland; Dr Anne Griffin, Associate Professor and Course Director, MSc Human Nutrition & Dietetics, UL; Dr Amy Healy, Assistant Professor, Department of Sociology, UL; Lorraine O'Connor, Chairperson, Muslim Sisters of Éire; Dr Martin J. Power, Associate Professor, Department of Sociology and Co-Director, Centre for the Study of Popular Culture and Popular Music at UL; and Dr Majka Ryan, Assistant Professor, Department of Work and Employment Studies, Kemmy Business School (KBS), UL.

SDG Challenge and SFI Future Innovator Prize

The overarching purpose of the Science Foundation Ireland (SFI) SDG Challenge is to develop transformative, sustainable solutions that will contribute to addressing development challenges under the UN SDGs in Irish Aid's partner countries. SFI and Irish Aid are seeking solutions that contribute to **SDG 2: Zero hunger** (End hunger, achieve food security and improved nutrition and promote sustainable agriculture). On 18 and 19 September 2024, Professor Gavin Walker from the Bernal Institute hosted an international workshop entitled "Enhancing Crop Production with Brackish Water Irrigation in the Jordan Valley" at the Bernal Institute. Funded by SFI and Irish Aid, the event focused on **SDG 2: Zero hunger** and was attended by representatives from universities in Palestine, Lebanon and Jordan.

Stretching from Jeftlik through Auja to Jericho, north of the Dead Sea, the Jordan Valley is characterised by its abundant brackish water resources, estimated at 15 million cubic metres per year. This project aims to increase the production of high-value, nutrition-rich crops by adapting specific crop varieties to these brackish water conditions. The initiative will leverage the valley's unique environmental factors, including its high solar radiation and distinctive salinity levels, to introduce a sustainable and innovative agricultural practice. The workshop developed a research programme that is visionary and will transform the limiting factor – salinity – into an advantage, thereby providing a blueprint for similar arid regions worldwide and contributing to local and global food security and sustainable agricultural practices.

Professor Gavin Walker, Bernal Chair in Process Engineering, said, "This exciting, multidisciplinary workshop developed a programme to enhance food security in an increasingly vulnerable area of the Middle East. This employed expertise from University of Limerick and from our new international collaborating institutions in the region".

Professor Saed Khayyat (Director of International Grants and Projects) and Professor Munqez Shtaya (Director of the Scientific Centres) at An-Najah National University, Palestine added, "Supported by the SFI Future Innovator Prize programme, our initiative has now established a global blueprint for sustainable agriculture and food security in semi-arid regions, spear-headed by An-Najah National University and University of Limerick".

Giving Voice

Sustainability means designing with intention – where nothing is wasted, and everything has purpose. By closing the gap between humans and nature, we create circular systems that respect our environment instead of a linear 'take-make-dispose' model. We ensure that every material, every product, and every decision contribute to a more thoughtful and regenerative future.

Emilia Ziolek
Student of Product Design and Technology,
Faculty of Science and Engineering, UL



3 GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages.

Improving health and reducing inequities

The aim of the IMPAQT (IMproving Physical Activity policies and their impact on health eQuiTy) project funded by the European Union (EU) is to address a pressing challenge to public health: health inequity caused by physical inactivity. Chaired by Professor Catherine Woods from UL's Physical Activity for Health (PAfH) Research Centre (Health Research Institute and Department of Physical Education and Sport Sciences (PESS)), the project targets the growing burden of non-communicable diseases (NCDs) by enhancing physical activity policies and their implementation.

NCD prevalence is rising sharply, necessitating systemic changes rather than individual efforts to mitigate their impact. The COVID-19 pandemic underscored the protective effects of physical activity (PA) and highlighted the disparities experienced by various subgroups, such as children, women, minorities and people with disabilities. The IMPAQT project aims to make a significant impact by improving health equity 'in' and 'through' PA for the population.

Funded with €1.68 million from the ERA4Health partnership (Horizon Europe), the project involves multiple European countries, including Germany, Lithuania, the Netherlands, Poland, Romania and Ireland. The project team employs cutting-edge methodologies, such as the Physical Activity-Environment Policy Index (PA-EPI), to assess policy implementation and develop recommendations.

IMPAQT's innovative approach includes a participatory process involving policymakers, experts and citizens. The project aims to produce country-specific policy implementation scores, highlighting critical gaps and offering pathways to address them. These efforts will culminate in scorecards and transnational comparisons, setting international benchmarks for healthy and equitable PA policy environments.

By utilising the PA-EPI, IMPAQT will help policymakers identify the current status of PA policy implementation and provide mechanisms to document progress. This will support the achievement of the World Health Organization (WHO) target of a 15% relative reduction in population inactivity by 2030. The project's outcomes could contribute to enhancing the implementation of equitable PA policies, ultimately contributing to improved population health.

IMPAQT aligns with several SDGs. The WHO's Global Action Plan on Physical Activity 2018-2030 highlights the multiple benefits of policy actions on physical activity. As well as contributing directly to achieving **SDG 3: Good health and wellbeing**, the policies contribute to **SDG 2: Zero hunger**; **SDG 4: Quality education**; **SDG 5: Gender equality**; **SDG 8: Decent work and economic growth**; **SDG 9: Industry, innovation and infrastructure**; **SDG 10: Reduced inequalities**; **SDG 11: Sustainable cities and communities**; **SDG 12: Responsible production and consumption**; **SDG 13: Climate action**; **SDG 15: Life on land**; **SDG 16: Peace, justice and strong institutions**; and **SDG 17: Partnerships**.

"Assessing the implementation of physical activity policies is crucial to identify gaps and to develop actionable recommendations with key stakeholders", said Professor Woods, the project lead.



The 2024 International Society for Physical Activity and Health (ISPAH) Conference brought together world-leading experts and provided a platform for the exchange of cutting-edge research to promote physical activity globally.

Longitudinal rugby injury surveillance to maintain player welfare

The importance of both playing and competing in sport cannot be overestimated for those involved. Many want to compete well, and to do so means staying healthy and injury free. Similarly, the wider sporting population want to enjoy playing sport and age well through participation. There is a need for sustainable, good-quality longitudinal injury surveillance in all sports to help guide clinicians, coaches, athletes, policy and game law makers, and resource decision makers to make well-informed choices and look after player welfare. Almost three-

quarters (72%) of Irish adults who play amateur sport experience having an injury, and most do not receive financial support. The annual direct costs of sports injuries have been recently estimated at in excess of $18 billion for the USA and €3 billion for our EU neighbours the Netherlands. This does not include the indirect costs of team non-selection or time off from school or work.

The Irish Rugby Injury Surveillance (IRIS) Project is a collaboration between UL and the Irish Rugby Football Union (IRFU). Led by principal investigators (PIs) Professor Ian Kenny and Professor Tom Comyns with a team of multidisciplinary UL researchers, the project began in 2016 and is currently tasked with the surveillance of injuries nationally in both the amateur adult and school Rugby Union game in Ireland. Since this initial 2016 aim, there has been a significant increase in the number of researchers, funding partners and Rugby science questions being addressed, and the work is now funded to beyond 2030. Current areas being examined by the team include breast injuries, concussion, tackle behaviour, and methods of implementing injury prevention programmes. Partners now involved include UPMC Ireland/Pittsburgh, Research Ireland, Erasmus+, Lero – the Taighde Éireann Research Centre for Software, Stellenbosch University, Bangor University, Auckland University of Technology and University of Buenos Aires. The team's most recent study on concussion management and treatment commenced in 2024.

With a worldwide increase of 28% in registered female players since 2017, the participation of women in Rugby Union is rising. Currently, there are 2.7 million female players worldwide, which means that over 25% of the global player population is female. Unfortunately, the current literature does not represent this significant international population of female players, and this research imbalance is something the team aims to reduce by investigating factors affecting the women's game.

Using World Rugby and International Olympic Committee consensus statements on injury, illness and data collection procedures, IRIS built a bespoke web-based injury surveillance system (IRISweb) and annually monitors 50+ teams for 1,800+ amateur male, female and schoolboy Rugby Union players – 12,500 cumulatively since 2016. Subsequently, injury trends emerge that help the IRFU and World Rugby to develop and implement future evidence-based injury prevention strategies to minimise injury risk and enhance player welfare. Ultimately, this address SDG 3: Ensure healthy lives and promote well-being for all at all ages.

According to Dr Rod McLoughlin, IRFU Medical Director, "Injury and illness surveillance is at the heart of the IRIS project. It is a fundamental component of focused efforts to protect the health of the players. Carefully designed injury surveillance programmes, accurate data capture and careful analysis are building blocks that help us keep players safe and ensure everyone can play the game to their fullest potential."



Enhancing Para sport participation in Ireland: Insights from the Gateways and Pathways Study

People with disabilities face persistent barriers to sports participation, from accessibility challenges to a lack of structured pathways into competitive environments. Para sport, while growing, still requires targeted efforts to improve recruitment, retention and the overall experience for athletes and coaches. In close collaboration with Paralympics Ireland, researchers from UL completed a landmark study exploring the experiences of Para sport athletes and coaches in Ireland to understand what makes a positive developmental experience and improves recruitment, retention and the overall sporting environment.

The Gateways and Pathways Study used a mixed-methods approach to collect data from Para sport athletes through a national survey (n=123) and in-depth interviews with athletes (n=18) and coaches (n=15). By focusing on the perspectives of those involved, the research identified factors that contribute to both positive and negative experiences, including barriers, challenges and opportunities within the pathway. These insights are currently being used to develop strategies to create a more inclusive, supportive and effective environment for Para sport athletes and coaches.

As the research moves towards developing evidence-based strategies for improving Para sport participation, the findings are being widely disseminated at key national and international forums, including Paralympics Ireland's National Forum, the International Symposium of Adapted Physical Activity, and the International Council for Coaching Excellence Global Coach Conference.

According to project lead Associate Professor Seán Healy (PAfH Research Centre and PESS), "This project marks a critical milestone in Paralympics Ireland's ambition to maximise the participation, success and wellbeing of all Para athletes. This initiative will ensure that future practices and strategies are evidence-based, driven by the voices of athletes and coaches. The research team from PESS was honoured to collaborate with Paralympics Ireland on this venture."

This project reinforces UL's commitment to **SDG 3: Good health and well-being** by ensuring that policy and practice in Para sport are shaped by the experiences of athletes and coaches.



Project team members and collaborators (from left): Dr Ian Sherwin (UL), Ana Maia (Paralympics Ireland), Dr Frank Nugent (UL), Neasa Russell (Paralympics Ireland), Associate Professor Seán Healy (UL), Brian Hughes (Paralympics Ireland) and Dr Phil Kearney (UL). Absent team members include Professor Elaine Murtagh (UL) and Alan Dineen (UL PhD student).

Reducing school inequalities through quality teacher education

The Justice Ed and SATLE projects are addressing the challenge of inequality in school physical education (PE), specifically in relation to how PE is taught and experienced with respect to social justice matters such as gender biases, ableism, sexism and racism. By fostering a learning community among teacher educators and student-teachers, these projects aimed to promote socially just pedagogies that ensure PE is inclusive and equitable for all students. Through creative visual prompts and collaborative action plans, the projects are raising awareness and driving change in PE teacher education across Ireland and Northern Ireland. The projects are funded by the Irish Research Council (IRC), HEA and National Forum for the Enhancement of Teaching and Learning in Higher Education.

One of the most impactful outcomes of the two projects has been the development of creative visual prompts and case studies. The prompts serve as powerful tools to raise awareness among teacher educators and students about the importance of equity in PE. These visuals are now actively used by teacher educators and student-teachers to foster meaningful discussions and inspire change within their classrooms.

The impact of the projects has extended beyond the initial institutions. More initial teacher education (ITE) providers in Ireland (Munster Technological University and UCC), Northern Ireland (Ulster University) and internationally (Deakin University, The University of Melbourne and Kent University) are incorporating these visual prompts into their programmes. As a result, a growing network of future educators is being equipped with the knowledge and resources to ensure that PE is an empowering experience for every student, regardless of background.

The impact of the projects is already evident as participating educators report having a deeper understanding of social justice in PE and more confidence in implementing inclusive practices. Looking ahead, the potential for long-term change is significant. As more ITE providers adopt these resources, the movement towards equity in school PE will continue to expand. Future research and collaboration will further refine these approaches, ensuring that socially just pedagogies become

embedded in teacher education and PE curricula across Ireland and beyond. The ripple effect of these efforts has the power to transform the educational landscape, making PE a truly inclusive and empowering experience for all students.

Reflecting on the experience, one student-teacher said, "Being part of these projects has completely changed how I view physical education. I know it is challenging, but I now feel more confident in creating inclusive learning environments and ensuring that every student, regardless of their background, feels valued and included in PE classes."

Building a sustainable community of practice to support assistive technology innovation in Nepal

In Nepal, access to assistive technology (AT) remains a significant challenge that affects the daily lives of persons with disabilities. Limited infrastructure, fragmented service provision and gaps in innovation hinder the sustainable development of AT solutions. Addressing these challenges, a global-local consortium of stakeholders established the Enabling Fridays Community (EFC) to collaboratively strengthen local systems and unlock innovation in AT products and services.

Since its inception in late 2022, the EFC has convened over 20 stakeholders in a series of structured sessions aimed at defining problem indicators and prioritising local interventions. The community's mission is to enhance AT provision by advocating for improved infrastructure, evidence-based practice, service standards and sustainable innovation. By fostering collaboration and local ownership, the initiative aims to create long-term, impactful improvements rather than short-term fixes.

The project gained momentum in 2024, with Professor Rosemary (Rosie) Gowran from the School of Allied Health playing a key role. As an Honorary Professor with the Department of Computer Sciences and the Global Disability Innovation (GDI) Hub at University College London, Rosie is actively engaged in research and innovation partnerships under the AT2030 – Life Changing Assistive Technology for All initiative. She works alongside GDI colleagues, the Design Lab at Kathmandu University's Department of Mechanical Engineering, and local stakeholders – including people with disabilities, clinicians, and industry partners – to develop sustainable AT products and services.

A key focus of this work is enhancing wheelchair service provision and designing bespoke prosthetic products tailored to local needs. By building infrastructure for the appropriate provision and maintenance of assistive products, the initiative directly contributes to the UN SDGs, particularly **SDG 3: Good health and well-being** and **SDG 10: Reduced inequalities**.

The impact of this initiative extends beyond product design and provision – it fosters a sustainable ecosystem that empowers local communities to co-create solutions. According to Professor Gowran, "A sustainable community considers, and addresses, multiple human needs. A sustainable community provides equal opportunities for everyone to contribute to decision-making where they can feel free and safe to share their ideas and work collectively towards a more sustainable future for all."

As the project continues in 2024, the focus remains on strengthening Nepal's AT ecosystem to ensure that individuals with disabilities have access to high-quality, sustainable and locally supported AT services.



Fourth Provincial (Kathmandu) Wheelchair Provision Workshop involving key stakeholders (wheelchair users, providers, clinicians, engineers, local government and NGOs) conducted in April 2024

HRI celebrates 10 years of transformative health research and sustainable impact

The Health Research Institute (HRI) reaffirmed its commitment to addressing critical health challenges and promoting sustainability as it marked its 10-year anniversary in 2024. With a focus on **SDG 3: Good health and well-being**, the HRI continues to drive impactful research across four priority research areas: ageing; cancer; physical activity for health; and food, diet and nutrition. These research areas are critically dependent on the underpinning areas of excellence and expertise in implementation science, participatory health research, digital technology and advanced data analytics.

In alignment with UL's Research Strategy, *Wisdom for Action*, HRI hosted two major international conferences in 2024: the 12th Scientific Meeting of the International Society for Research on Internet Interventions (ISRII 12) and the International Biochemistry of Exercise Conference (IBEC) 2024. These events fostered knowledge exchange and international collaboration.

To strengthen its research capacity, HRI launched three key funding initiatives in 2024:

- A PhD programme offering three fully funded, four-year scholarships
- A 10th-anniversary bursary scheme, awarding 10 postgraduate and postdoctoral researchers
- A seed funding call to support non-exchequer funding applications

These initiatives aim to expand UL's health research impact and innovation.

The HRI's commitment to sustainability is evident through projects like APPLE-BIO, which repurposes apple processing waste into valuable food ingredients, and ISCycle2, which promotes sustainable transport and healthy living. Collaborations with international research leaders, industry partners and funding bodies, including Research Ireland and the US National Institutes of Health, further strengthen the HRI's contributions to health and sustainability.

The following are notable 2024 research projects. All researchers are affiliated to UL unless otherwise stated.

- **APPLE-BIO:** Led by Professor Daniel Granato, this project enhances human nutrition and cardiometabolic health by developing functional beverages enriched with apple peel phenolics and fibre, targeting obesity-related inflammation and oxidative stress.
- **RESIST:** A collaborative study on resistance exercise as a treatment for major depression, led by Dr Jacob Meyer (University of Wisconsin–Madison) with Professor Matthew P. Herring. This research explores novel, non-pharmacological interventions for mental health.
- **ISCycle2:** Led by Professor James Green, this project promotes equity in e-bike use, encouraging sustainable transport alternatives that reduce emissions and improve public health.
- **Strengthening Health Information Systems for Migrants:** Led by Professor Ailish Hannigan, this project integrates migrant health data into national systems to improve healthcare policy and decision-making in Ireland.
- **Global Bioconductor:** Supported by the Chan Zuckerberg Initiative and led by Professor Aedín Culhane and Professor Maria Doyle, this project advances bioinformatics tools for largescale biological data analysis.
- **IMPAQT:** Led by Professor Catherine Woods, this initiative enhances equity in physical activity policy development and health monitoring.

In 2024, HRI researchers contributed to leading journals, including *Nature Medicine, The Lancet Regional Health – Europe* and *Cancer Cell*, with studies on mobile mental health interventions, refugee health data integration and innovative cancer treatments.

Notable strategic initiatives in 2024 were conducted through:

- Healthy UL, an interdisciplinary initiative, which promotes health and wellbeing across UL's campus in alignment with the HRI's research focus on sustainable health environments. Healthy UL leadership comprises active HRI members and thematic leads for two HRI priority research areas.
- The eHealth-Hub for Cancer, a North-South research programme led by Professor Aedín Culhane (UL and HRI Limerick Digital Cancer Research Centre lead) and Professor Mark Lawler (Queen's University Belfast), which is developing an all-island framework for federated clinical health data research.

The Centre for Implementation Research, UL (CIRcUL) enhances the application of evidence-based research in public services and advances health policy and practice. Established in February 2024, CIRcUL evolved from the highly successful HRI-funded HIST (Health Implementation Science and Technology) cluster.

Led by HRI members Professor Helen Phelan and Professor Anne MacFarlane, the Participatory Health Research (PHR) Unit was formally launched by Vice President Research Professor Norelee Kennedy and Vice President Global and Community Engagement Professor Nigel Healey as part of UL Research Week 2024.

According to Professor Kennedy in her introduction to the HRI Annual Report 2024, "The HRI's journey, marked by significant achievements and a commitment to fostering research that positively impacts healthcare locally, nationally and globally, illustrates its pivotal role within UL and the broader research community."

Seminar: Supporting children who experience trauma through music

This seminar took place on Wednesday, 28 February 2024 at the Irish World Academy of Music and Dance (IWA). It presented three community-engaged research projects by Irish World Academy PhD students. Music therapists James Burns, Sarah Alley and Hannah Healy established music therapy for children in Ireland who experience trauma.

Each PhD student is exploring the impact of music and music therapy on the wellbeing and resilience of children facing extraordinary challenges. James works with children with communication difficulties resulting from a traumatic brain injury; Sarah works with children who experience anxiety because of family and community trauma; and Hannah works with children who experience a significant loss, specifically focusing on the loss of a person due to imprisonment.

Chaired by Professor Hilary Moss (Irish World Academy), the seminar combined theory, research and real-life examples of how, when and where music can help children to overcome difficulties. Attendees learned about music therapy and childhood mental health and left with an understanding of how these creative innovative practitioners are supporting children and their families in Ireland.

Supporting families with sensory processing challenges: A collaborative occupational therapy initiative

In April and May 2024, final-year UL MSc Occupational Therapy students will contribute to a valuable project designed to support families and caregivers of children with sensory processing difficulties. The two-part educational webinar series was developed as part of the students' project placement and aims to enhance awareness and provide practical strategies for addressing sensory processing issues.

The goal of the webinar series is to offer valuable education and actionable tips to parents and caregivers to help them understand and manage their children's sensory processing challenges. Sensory processing difficulties can affect a child's learning, social interactions and everyday life, often creating stress at home, especially around activities like mealtimes, bedtime routines and play. This project empowers parents with the knowledge and tools to create sensory-friendly environments, ultimately improving their child's comfort, confidence and overall wellbeing at home and in school.

The collaborative project involves the CAMHS (Child and Adolescent Mental Health Services) Occupational Therapy team, final-year Occupational Therapy students and the UL practice placement team. Working together, the project team created a resource that aims to enhance the lives of children by addressing their sensory processing needs, fostering both personal and educational growth.

The project aligns with several SDGs:

- **SDG 3: Good health and well-being** – Promotes the wellbeing of children with sensory processing difficulties.
- **SDG 4: Quality education** – Educates parents, caregivers and professionals involved in the care of children with sensory processing issues. The project is designed with accessibility in mind; it supports universal design principles and improves educational outcomes.
- **SDG 10: Reduced inequalities** – Provides accessible support and resources to reduce inequalities for families facing challenges with sensory processing issues.
- **SDG 17: Partnerships for the goals** – Exemplifies the importance of partnerships in achieving sustainable development objectives

According to one practice educator, "Student involvement in the project facilitated the CAMHS Occupational Therapy Services team to advance this service development initiative while also supporting student learning. The webinars had been identified as a CAMHS resource need as far back as 2022, but due to pressures on occupational therapists' time, it had been impossible to move forward. The project placement model allowed for a combined effort by the students, CAMHS Occupational Therapy Services and the practice education team. The end result is a fantastic resource that supports parents and caregivers in understanding how sensory processing challenges influence their child's behaviour, with tips and strategies provided to optimise the child's wellbeing and functional capacity at home, school, and when out and about."

One Occupational Therapy student had this to say: "As part of our final MSc placement, we aimed to create a resource that would genuinely help parents and caregivers navigate the complexities of their child's sensory processing challenges. It was a pleasure to be part of this service development initiative."

This project not only supports the development of the students involved but also offers long-term benefits to families in need of support, thereby contributing to a more inclusive and understanding society.

Dr John Lombard appointed to Pharmaceutical Society of Ireland's Preliminary Proceedings Committee

In January 2024, Dr John Lombard (School of Law) was appointed to the Pharmaceutical Society of Ireland's Preliminary Proceedings Committee. The Pharmaceutical Society of Ireland is a public body established in law to protect the health, safety and wellbeing of patients and the public by regulating pharmacists and pharmacies in Ireland. A complaint relating to a pharmacist or pharmacy is initially reviewed by the Preliminary Proceedings Committee (PPC). The PPC will consider the complaint and make its recommendation about what should happen about the matter. Some complaints may result in a hearing before a Committee of Inquiry or be dealt with by way of mediation.

We Will Tell Everyone

The song *We Will Tell Everyone* was the result of a research collaboration between members of the Dementia Research Advisory Team at The Alzheimer Society of Ireland and the Music Therapy Department at the Irish World Academy.

Written collaboratively with support from esteemed songwriter Carl Corcoran, the original song was released in August 2024. It explores the experiences of living with dementia and the importance of public and patient involvement (PPI) in dementia research.

Helen Rochford-Brennan, Kevin Quaid and Gerry Paley are all living with various types of dementia with support from their family and friends Carmel Geoghegan, Helena Quaid and Nuala Paley and are committed to raising awareness of dementia, PPI in dementia research and breaking the stigma of a dementia diagnosis. They collaborated with music therapist Lisa Kelly from the Irish World Academy on her PhD research, which explored the role of music therapy for people with dementia and their family caregivers. Lisa's research was supervised by Professor Hilary Moss, Course Director of the MA Music Therapy, and Professor Ita Richardson of Lero.

Professor Helen Phelan, Director of the Irish World Academy, congratulated all involved in the project and recording. "We are so proud to support the production of this inspirational song – an excellent example of how music and the arts can be harnessed to create research with people, rather than on them."

RTÉ Brainstorm article on 'Singing and music for pregnancy wellbeing' by Dr Tríona McCaffrey

Dr Tríona McCaffrey of the Irish World Academy wrote an article for RTÉ Brainstorm on the health and wellbeing benefits of the use of music and singing during pregnancy. The article presents research that supports the use of music as a means of promoting attachment with an unborn child and also as a way of fostering parental wellbeing.

There is mounting research to show the health benefits of singing to expectant mothers. Such benefits are described in terms of improving the maternal emotional state, reducing cortisol (also known as the stress hormone) and increasing oxytocin (otherwise known as the bonding hormone). These markers of improved maternal wellbeing are important to consider against the backdrop of the perinatal period, described as the time from conception to approximately 12 months after birth. As the perinatal period is often a time of significant transformation and adjustment for women, it is also a time when women can experience increased stress and anxiety. Music can offer a way of addressing these adverse experiences, and research indicates that women's singing to their baby in utero can support maternal wellbeing and mother-infant bonding. Singing can also serve as a way of promoting attachment between parent and baby in utero. This is where a parent's voice (yes, partners can do this too) is used as a means of connecting with their unborn child. Hearing is fully developed around 24 to 26 weeks of gestation, and the first voice heard by a foetus is usually that of its mother, a voice that becomes a comforting anchor, particularly in times of distress. This innate draw to a mother's voice is supported by research that shows that newborns prefer the sound of their mother's voice and more so when that voice is singing.

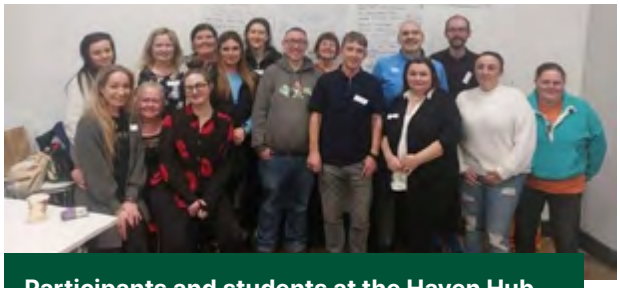
Supporting volunteer wellbeing: UL students collaborate with the Haven Hub

In autumn 2023, students from the Community Wellness, Empowerment, Leadership and Lifeskills (CWELL) Diploma and the Professional Diploma in Community Engagement began collaborating with the Haven Hub, a Limerick-based mental health and suicide prevention charity run entirely by volunteers. The Haven Hub's mission is to make mental health supports widely accessible and to empower individuals to take control of their mental wellbeing. The Hub offers a range of wellness programmes, support groups and training courses. The collaboration began with a consultation to better understand the organisation's needs and continued into 2024, culminating in the launch of a research report in May.

Co-designed with the Haven Hub, the research focused on investigating the high attrition rate among new and prospective volunteers. Using an engaged research approach, students conducted a World Café-style focus group and an online survey. The findings highlighted weaknesses in the Hub's volunteer recruitment, training and development processes and recommended that the Board strengthen its systems and policies in these areas.

Importantly, the research also found that while the Haven Hub attracted volunteers easily, those who remained described their experience as extremely positive. The Board welcomed the report's insights and began implementing its recommendations immediately.

Leona O'Callaghan, Founder and Director of the Haven Hub, had this to say: "I really recommend any organisation looking for answers to work with the CWELL team. It was such a positive experience and has been a huge asset to us – both in terms of insight and the friendships we've made." Leona's remarks were echoed by Haven Hub Chairperson Pat Doran: "The work the students did was tremendously useful. They identified both our organisational failings and our strengths, which has helped us move forward."



Participants and students at the Haven Hub World Café, UL City Campus, 15 March 2024

Music and music therapy research for perinatal wellbeing on World Maternal Mental Health Day

On World Maternal Mental Health Day on 1 May 2024, Dr Tríona McCaffrey, Associate Professor of Music Therapy at the Irish World Academy, featured as a panellist at a conference entitled From Research to Action: Improving Perinatal Mental Health for Women in Ireland. The conference was co-hosted by the National Women's Council and Trinity Centre for Maternity Care Research at the School of Nursing and Midwifery, TCD. As part of a panel discussion on barriers and enablers to the specialist perinatal mental health model of care in Ireland, Dr McCaffrey

presented on key UL research projects on music and music therapy for perinatal wellbeing. Such projects included the 'Mums Using Music' (Mum) online project for perinatal wellbeing in pregnancy and PhD research by Pui Sze Cheung on music therapy as part of a specialist perinatal mental health service in Ireland. This interdisciplinary research is conducted through ongoing collaboration between the Irish World Academy, the Department of Nursing and Midwifery (UL) and the University Maternity Hospital Limerick.

Community-based dance programmes for people with Parkinson's disease

A growing body of research indicates that dance can be a safe, meaningful activity for people living with Parkinson's disease. Community-based dance programmes for people living with Parkinson's create opportunities to exercise, connect with others and express themselves creatively.

While it is understood that dance programmes can support the physical, mental and social wellbeing of people living with Parkinson's, there has been a lack of research into how these programmes sustain themselves over time. As part of her doctoral research at the Irish World Academy, Morgan Senter conducted a study examining the long-term sustainability of dance programmes for people living with Parkinson's to better understand how these programmes can be supported. The research was supervised by Professor Amanda Clifford from the School of Allied Health and Dr Orfhlaith Ní Bhriain from the Irish World Academy.

The study involved on-site observation visits to several established community-based dance programmes for people living with Parkinson's as well as interviews with facilitators, dancers and stakeholders from Parkinson's organisations. The study identified several key areas that support the long-term sustainability of such dance programmes, including funding, organisational structure, and the quality of the instructor and the dance experience. Programmes were more likely to be sustainable if they offered an enjoyable, low-pressure dance experience and had more than one facilitator and funding source. The study found that links between the programmes and Parkinson's organisations and arts and healthcare institutions were key to the success and sustainability of the progammes in the long term.

Interviews provided evidence that dance programmes for people living with Parkinson's were often associated with funding difficulties; therefore, the study concluded that more advocacy for community programmes like these must take place at local and policy levels. Additionally, the study highlighted a critical lack of a central database in Ireland for connecting people with Parkinson's to community supports in their area. Addressing the areas identified in this study and continuing sustainability research could ensure that more people living with Parkinson's have access to reliable, high-quality dance programmes in their communities. The results and recommendations from this research were published in the journal Disability and Rehabilitation.

Dynamic action plan for refugee and migrant health research launched by UL

A new health research action plan for refugee and migrant health was launched on 10 October 2024. This participatory health research project used creative methods such as music and singing to provide participants with the opportunity to share their thoughts on ways in which refugees and migrants could be involved in research about their own health needs. The project was led by the Participatory Health Research Unit at UL, which is co-directed by Professor Anne MacFarlane and Professor Helen Phelan. It was co-designed by researchers working in partnership with organisations that represent migrants and refugees, including the lead NGO partner Doras. The IRC funded the research partnership.



Pictured at the launch of the health research action plan for refugee and migrant health were (L to R) Lorna Kerin, UL; Ahmed Hassan, Doras; Helen Phelen, UL; Anne MacFarlane, UL; Thilo Kroll, UCD; and John Lannon, Doras

UL hosts symposium on promoting breastfeeding for future generations

As part of National Breastfeeding Week 2024, UL hosted a symposium entitled 'Promoting Breastfeeding for Future Generations: The Role of Practitioners and Students on Campus and the Wider Community'.

With low breastfeeding rates in Limerick and the Mid-West region, academics from UL's Department of Nursing and Midwifery, School of Allied Health and School of Education partnered with Healthy UL and Limerick City and County Council's *We're Breastfeeding Friendly Limerick* initiative to drive change. The symposium brought together students, practitioners, researchers and community stakeholders to collaborate on creating a breastfeeding-friendly environment at UL and beyond.

Opening the event, Senator Pauline O'Reilly, Chair of the Oireachtas Committee on Breastfeeding, highlighted the importance of collective action. Professor Roy Philip presented research on national breastfeeding trends, while BSc midwifery student Andrea Pasztor shared findings from her study on attitudes towards breastfeeding among UL students and staff. Healthy UL Manager Sarah Kennedy outlined plans to improve campus facilities, and PhD researcher Jennifer Kehinde spoke about the impact of prenatal breastfeeding education. Keynote speaker Claire Ferris, Midwife of the Year and Infant Specialist at Tipperary University Hospital, discussed initiatives to normalise breastfeeding among schoolchildren, emphasising the important role of early education.

Central to the event was an interactive session, which encouraged attendees to co-create an implementation plan for breastfeeding initiatives at UL. Dr Sylvia Murphy Tighe of the Department of Nursing and Midwifery stressed the link between breastfeeding, public health, sustainability and climate action. A panel discussion featuring UL staff and researchers addressed the challenges of breastfeeding in modern society and the need for supportive, inclusive environments.

Dr Jennifer Hennessy from the School of Education underlined the significance of interprofessional collaboration, noting the long-term influence of educating young people about breastfeeding. UL graduate Leah O'Donoghue visually captured the day's key themes through graphic recording. The event closed with remarks from Olivia O'Brien, Healthy Limerick Coordinator, which reinforced the message of community support.

Reflecting on the event, Dr Anne Griffin of the School of Allied Health said, "Breastfeeding nurtures the health and wellbeing of future generations. We must create a culture that empowers and supports breastfeeding families, ensuring a healthier future for all."

Innovative camp for children who stammer held for first time at UL

In July 2024, UL hosted *Camp Dream Speak Live*, a unique week-long programme designed for children who stammer. Twenty-seven children from across the region took part in the evidence-based camp, which aimed at empowering young people to embrace their stammer, build confidence and resilience, and reduce the impact of stuttering on their lives.

The camp was a partnership between UL's School of Allied Health and the Health Service Executive (HSE) Speech and Language Therapy services in Limerick, North Tipperary and Clare. It was facilitated by HSE speech and language therapists, UL academics and second-year MSc Speech and Language Therapy student volunteers.

A wide range of activities supported communication development and confidence building, including drumming, circus skills, Lego building, dancing, improvisation, music, mindfulness, and a special visit from Marcel, an ambassador dog from the Irish Guide Dogs for the Blind.

The camp included a visit by the group to equine-centred services in Co Clare for equine-assisted learning, where they enjoyed caring for and leading horses. Throughout the week, children heard inspiring stories from 'everyday leaders' – adults who stammer – including Watford FC footballer Ken Suma. To the children's delight, Limerick senior hurling manager John Kiely made a special guest appearance to answer questions and sign jerseys and hurleys.

Camp Dream Speak Live was founded in 2014 by Courtney Byrd at the University of Texas. After attending the Texas camp in 2023, Marie Nicholas, a senior speech and language therapist with the HSE, brought the initiative to UL for the first time. She was supported by colleagues Mary O'Dwyer and Emer Ní Mhaoileoin, who have experience running the camp in Tralee.

Reflecting on the success of the UL camp, Ms Nicholas said, "It was a privilege to watch the children

grow in communication, confidence, self-acceptance and belief. We hope to run the camp every summer for children who stammer across the region." Senior speech and language therapist Leanne Bridgeman added, "The children learned that their voice matters and that stammering should never hold them back from living life to the fullest."

The camp concluded with a colourful parade across UL's Living Bridge, where the children showcased posters and banners they created, raising awareness about stammering and celebrating their achievements.

Machine learning meets medicine: UL student's groundbreaking work on cerebral palsy detection

A UL software engineering student contributed to a pioneering project aimed at transforming the early detection of cerebral palsy. Aaron Roche, a 20-year-old student on UL's Immersive Software Engineering (ISE) programme, undertook his residency with the ELEVATE project – a five-year research initiative aimed at improving the prevention, detection and treatment of early brain injury and cerebral palsy in Ireland. Led by the INFANT Research Centre at UCC in partnership with RCSI University of Medicine and Health Sciences, TCD and major maternity hospitals, ELEVATE aligned closely with the SDGs, particularly Goal 3: Good health and well-being.

Funded through the SFI Strategic Partnership Programme with co-funding from the Cerebral Palsy Foundation, ELEVATE sought to revolutionise the delivery of cerebral palsy care across Ireland. Officially launched by Tánaiste Micheál Martin TD in March 2024, the project focused on prevention, early detection and intervention, leveraging machine learning and AI to identify risks during pregnancy, labour and early infancy.

Aaron's selection of ELEVATE reflected both his academic interests and personal motivation. "Modules on research and machine learning in ISE really caught my attention. When it came time to choose a placement, ELEVATE ticked all the boxes – it combined research, healthcare and technology in a way that could have a genuine impact", he explained. Aaron's second-level school experience of being inspired by a classmate living with cerebral palsy reinforced his commitment to work in this field.

As part of the project team, Aaron built software capable of analysing vast datasets and tracking hundreds of variables from maternal background and lifestyle to neonatal health indicators over five years. His work aimed to create screening algorithms that could predict the risk of cerebral palsy shortly after birth or even during pregnancy. Aaron viewed the opportunity as both a professional challenge and a personal mission. "It's amazing to think that our work could lead to much earlier diagnoses and interventions for cerebral palsy, improving countless lives."

Reflecting on his time at UL, Aaron emphasised the advantages of the ISE programme: a master's degree combined with two years of industry experience. Looking ahead, he hopes to establish his own company and to use technology to create positive social impact, thereby continuing to align with the global SDG agenda.

UL graduate's scalp-cooling device for chemotherapy patients wins top design award

UL graduate Olivia Humphreys (24) from Pallasgreen, Co Limerick won the prestigious national James Dyson Award for her innovative device Athena – a portable, accessible scalp-cooling system for chemotherapy patients at risk of hair loss.

Olivia, who graduated with a BSc in Product Design and Technology from UL's Faculty of Science and Engineering in 2024, developed Athena as part of her final-year project. She was inspired by her mother's cancer journey in 2019, having witnessed first-hand the emotional impact of chemotherapy-induced hair loss.

Traditional scalp-cooling solutions are costly, hospital-based and time-intensive; they require patients to arrive early and stay long after their chemotherapy sessions. Athena offers a revolutionary alternative: a lightweight (3kg), battery-powered device combining a carry case and cooling helmet. The device enables patients to manage the process themselves, thereby reducing time spent in hospital.

Athena uses low-cost thermoelectric semiconductors to cool water, which circulates around the scalp via a specially designed headpiece. At an estimated cost of €1,000, it is far more affordable than current solutions, which can cost upwards of €40,000. The device provides 3.5 hours of cooling on a single charge, giving patients greater mobility and comfort during treatment days.

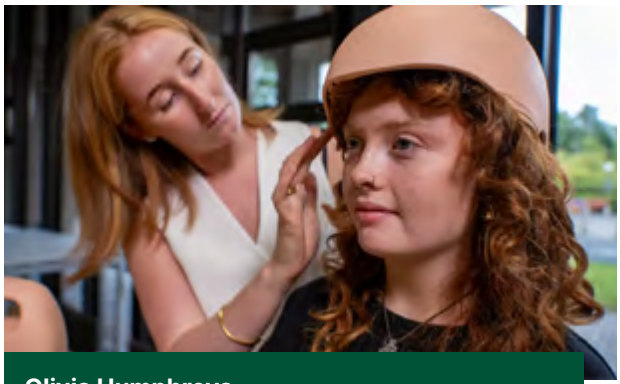
James Gilchrist, Lead Design Engineer at Dyson and part of the judging panel, praised Athena: "The genius of Athena is in taking the patient out of the clinic, enabling them to cool on their way to and from hospital, freeing up vital treatment space."

On winning the €5,800 prize, Olivia said, "I'm incredibly grateful. Athena is not just a project for me – it honours my mum and the many patients who shared their stories to help me shape this design."

Professor Niall Deloughry, Head of Discipline for Product Design at UL, congratulated Olivia, stating: "Her success highlights how meaningful, instinct-driven projects can lead to real-world impact." Dr Eoin White, course director for UL's BSc in Product Design and Technology, added, "Athena embodies the creativity and innovation we nurture at UL."

Olivia has accepted a research and development internship with Galway-based Luminate Medical, furthering her commitment to innovation in cancer care. She now looks ahead to refining Athena into a fully functional, commercially ready prototype as the project advances to the international stage of the James Dyson Award.

UL's School of Architecture and Product Design continues to produce world-class innovators; two other UL projects – Suas by Ko Kallewaard and Swoop by Seán-Jameson Galvin – were runners-up at the national awards.



Olivia Humphreys

UL students participate in drug-driving awareness campaign

UL students joined their peers across the region in calling for awareness of drug driving. Student union representatives from the three third-level institutions in the Mid-West (Mary Immaculate College (MIC), Technological University of the Shannon (TUS) and UL) joined An Garda Síochána, the Road Safety Authority (RSA) and the HSE Drug & Alcohol Service Midwest at the launch of the #DrugDrivingAware campaign, which was hosted by the Midwest Regional Drugs & Alcohol Forum (MWRDAF) in the Absolute Hotel, Limerick. The campaign features a series of six short videos involving student union representatives asking Sergeant Kevin Balfe, Road Section, Limerick Division of An Garda Síochána a number of questions about drug driving and the implications of the roadside test.

The initiative was the idea of MWRDAF 3rd Level Drug & Alcohol Network to get information out to the third-level student population in the region (approximately 30,000 students) about An Garda Síochána's new roadside drug test and what it could mean to a student if drugs were found in their system at one of these tests. The three local student unions were involved in the campaign from the start.

According to Sgt Balfe, "Being involved in this initiative is helping An Garda Síochána and the RSA get an important message out to the student population. There is a significant number of young drivers and students on the road today. The questions asked by the student union reps in the campaign really gets to the core of the matter in terms of what a drug-driving conviction can mean and how it can limit life choices."

Dr Eva Devaney, Healthy UL, Substance Use & Gambling, who took a lead role in the initiative, said, "More and more students are on the road driving to their third-level courses. It's important that they are aware of the roadside drug test and what it can mean for them if they take a substance and drive. Our main concern is about student safety and the safety of others, but it's also about bringing awareness to the longer-term implications."

UL's Student Welfare Officer Emily Rosenkranz said, "We want students to be aware that depending on the substance and the person, drugs can last in your system longer than you think. A drug-driving conviction can affect you getting a visa to travel to some countries and future job opportunities. An

immediate impact of a conviction is being put off the road for a year and may mean you can't finish your college course."

Annemaree Coady, Healthy Campus Coordinator in MIC, said the campaign had a "crucial role in educating and safeguarding our student communities on the risks and consequences of drug driving. Safety and wellbeing are paramount, and initiatives like these are instrumental in promoting responsible behaviour among our students and in our communities."

Gearóid Folan, Vice President, Education and Welfare at TUS, said, "It is important that all students who drive vehicles are aware of roadside testing and what happens when someone is stopped and tested, the process around this, and if a substance is found in your system, what are the impacts."

Speaking at the launch, MWRDAF coordinator Helen Ryan expressed a hope that the campaign would also be of interest to many beyond the third-level population in the Mid-West and thanked the students for leading the way in this important awareness initiative. "This regional interagency collaborative campaign, which addresses key SDG goals of reducing road injuries and deaths and preventing and treating substance use, was led by Dr Eva Devaney of the Healthy UL Substance Use and Gambling support group in 2024. The topic is drug driving, which is a highly relevant topic for our student population and the wider public. The campaign was informed and designed based on student voices and needs, and the key outcomes are available to the wider public."

Giving Voice

Sustainability to me is about making better choices every day, whether it's buying second-hand or being mindful of the impact we have. As a sociology and communications student, I see how everything is connected – our actions shape the world around us. It's not just about protecting the planet, it's about building a fairer society and thinking about how we can make a difference, no matter how small.

Zsanett Baranya
Cooperative Education Student,
Centre for Sustainable Futures and Innovation



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

UL and Green Tech Skillnet launch new onshore wind energy programme

UL and Green Tech Skillnet launched a new programme to enhance environmental capability in the onshore wind energy sector. The new micro-credential programme is dedicated to enhancing expertise in environmental impact assessment (EIA) and aims to meet the increasing demand for professionals who possess specialised knowledge in EIA for onshore wind farms.

In light of Ireland's concerted efforts to meet climate action plan targets, the importance of skilled individuals who can adeptly navigate the regulatory framework and assess environmental impacts cannot be overstated. UL has teamed up with Green Tech Skillnet, one of 70 Skillnet business networks nationwide, to deliver the programme, which was launched by Limerick TD Brian Leddin, Chair of the Oireachtas Climate Committee.

According to Deputy Leddin, "The State is embarking on an unprecedented expansion of energy and grid infrastructure, and this will run for decades. We have set a huge ambition, but we can only realise it if we have skilled professionals in environmental planning, administration, engineering and many other disciplines. The micro-credentials courses are a way of ramping up our skills capacity as quickly as possible while also opening varied and rewarding opportunities for our workforce."

Geraldine Carroll, UL Associate Vice President, Graduate and Professional Studies, said, "Supporting renewable energy for society and commerce is of significant strategic importance to UL. We are delighted to partner with Green Tech Skillnet in lending excellent expertise to meet the professional upskilling needs of enterprise."

Designed with input from industry experts, the programme will commence on 7 October. The course content will feature insights from focus groups and guest lecturers operating in the wind energy sector to meet the skills needs of professionals. By delving into the latest EU policy directives and Irish national legislation governing EIAs and offering practical insights through in-depth analysis of EIA case studies relevant to wind energy, the course is designed to equip participants with the expertise needed to contribute effectively to the sustainable development of this rapidly growing sector.

According to Mark Ruane, Network Manager, Green Tech Skillnet, "The significance of this micro-credential lies in its ability to address a critical gap in industry-specific education. As Ireland endeavours to achieve its climate action plan targets, professionals possessing a deep understanding of EIA for onshore wind energy projects will play a pivotal role in ensuring sustainable and environmentally responsible development."

Eoin Morton, Head of Policy & Public Affairs, Skillnet Ireland, said, "Ensuring we have a skilled workforce to support the planning and development of infrastructure projects will enable us to make Ireland a world leader in the renewable energy sector. What sets this micro-credential qualification apart is its unique focus on delivering a comprehensive understanding of the EIA process within the onshore wind energy landscape, making it the first of its kind in Ireland. It is another excellent example of the innovation and commitment of Green Tech Skillnet to deliver the specialised upskilling required to drive the sustainable development of onshore wind energy."

Aimed not only at environmental consultants, project managers and environmental engineers, the course also caters for government officials, regulatory compliance officers, legal professionals, and developers and investors in the wind energy sector. Individuals holding a degree in a relevant subject area or having significant, relevant experience in the energy sector are encouraged to apply.

UL and TCD to collaborate on sustainable aviation fuel research study

UL and TCD will collaborate on a new research study on sustainable aviation fuel (SAF) production. The four-year research study will examine potential avenues for manufacturing SAF in Ireland.

The research will be funded by the members of Aircraft Leasing Ireland (ALI), the Ibec group representing the aircraft leasing industry. The European Commission has introduced legislation obliging fuel suppliers to blend increasing levels of SAF in kerosene for supply at EU airports, commencing with 2% in 2025. However, the current SAF supply falls significantly short of the 2025 target, making the scale-up of SAF production critical.

The primary focus of the study will be to identify how Ireland can establish a sustainable and viable supply chain for SAF raw materials while also proposing scenarios in which a substantial quantity of SAF can be produced efficiently on the island. The four-year study will be led by Associate Professor Stephen Dooley and Assistant Professor Mohammad Reza Ghanni of TCD along with Professor Luuk Van der Wielen and Professor Vivek Ranade of UL.

Jack Chambers TD attended the launch of the study in his then role as Minister of State at the Department of Transport. According to Minister Chambers, "Due to the importance of SAF in reaching international climate goals, there is an impetus on the State, academia, aviation industry and representative bodies to work together to identify and consider the opportunities for SAF in Ireland. I commend this collaboration and wish all those involved great success."

UL's Luuk Van der Wielen, Bernal Professor of Biosystems Design and Engineering, said, "Sustainable air connectivity is critical for the island of Ireland. We at UL see the strong collaboration with our colleagues at TCD and Aircraft Leasing Ireland as an excellent opportunity to support sustainable economic development by harvesting Ireland's off- and on-shore renewable energy and the circular bioeconomy potentials. This is fully in line with the recent recommendations of the Shannon Estuary Economic Taskforce, the Irish Climate Action Plan and related strategies."

Karl Grifin, Vice-Chair of ALI, explained, "This research, conducted in partnership between Aircraft Leasing Ireland, UL and TCD, will identify what's needed to establish effective SAF supply chains and processes that could lead to production here in Ireland. This long-term investment is an example of our members' commitment to supporting the wider aviation industry to achieve net zero carbon emissions by 2050."

TCD Associate Professor Stephen Dooley added, "Sustainable aviation fuels must be produced from waste plant matter and renewable energy. Ireland has vast potential to produce both these building blocks and, therefore, to produce SAFs indigenous to Ireland. The collaborative research between ALI, UL and TCD will assess supply chains and SAF production technology scenarios all around Ireland to learn the most important things: how much SAF can be produced, where, at what cost, and at what CO^2 saving."

In addition to this funding, ALI, UL and TCD are members of the Department of Transport's Sustainable Aviation Fuel Task Force. This task force brings together stakeholders with responsibility for, and interest in, policy development and implementation in relation to SAF. The task force will help the Department of Transport to develop a national SAF policy roadmap.

UL journalism to partner on major new EU education project

The Journalism section in UL's School of English, Irish, and Communication is involved in developing a new EU Massive Open Online Course (MOOC), which launched in October 2024. Journalism@UL subject head Dr Fergal Quinn led the UL involvement in developing the course, which aims to help journalism students understand policymaking in Europe and utilise relevant data and sources.

UL was one of 27 partner institutes in the EU that contributed to the €1 million project, which is led by the Institute of Journalism at TU Dortmund. The UL team helped write the content of the MOOC, which was then piloted over the last 12 months by UL students. The interactive e-learning portal is now available free of charge to universities and the public across Europe.

According to Dr Quinn, "Recent studies have shown that a large number of aspiring journalists lack basic knowledge about the EU, while EU spending and actions in general are too rarely picked up by the media as important topics and investigated in-depth. We hope our input on this project can encourage an evolution in this area. Thanks to all the staff and students here in Journalism@UL for their work on this." EU Commissioner for Cohesion Policy and Reforms Elisa Ferreira praised the newly developed MOOC platform COPE as a "shining example of European cooperation". She said the future of the EU depends on independent media, which, with their critical reporting, "shed light on every corner of the European house" – and thus advance democracy in Europe.

Bridging gaps: Advancing accessibility in education and employment for all

In 2024, Dr Ann Marcus-Quinn of the School of School of English, Irish, and Communication furthered her commitment to accessibility in education through her work on the European Disability Forum's country report for Ireland and her co-edited book *Transforming Media Accessibility in Europe: Digital Media, Education and City Space Accessibility Contexts*. Published by Springer, the book offers a comprehensive exploration of media accessibility, focusing on technological, societal, psychological and legal aspects while promoting lifelong learning opportunities.

Published under an open licence (supported by funding from COST), the book is having an impact in making knowledge on media accessibility widely available. It includes case studies from across the EU and offers a roadmap for navigating the multifaceted landscape of accessibility, particularly in digital media, education and city spaces. Its open-access model aligns with SDG 4.3 (Equal Access to Affordable Education) and SDG 4.4 (Skills for Sustainable Development), which makes it a valuable resource for educators, students, policymakers and businesses working towards inclusive, technology-enhanced learning environments.

The book's holistic approach contributes to fostering an inclusive digital learning landscape, ensuring that all students – regardless of ability – have equal opportunities to succeed. The European Disability Forum's report on Digital Skills, Accommodation and Technological Assistance for Employment (DATA) highlights the challenges and opportunities for persons with disabilities in the Irish labour market and emphasises the importance of digital skills training and accessible technologies in enhancing employment inclusion. These contributions collectively work towards creating a more inclusive, equitable educational and employment landscape.

The DATA report, which explores how digital skills and workplace accommodations can empower persons with disabilities, aligns with **SDG 4: Quality education**, **SDG 8: Decent work and economic growth** and **SDG 10: Reduced inequalities**. This research promotes equitable access to employment opportunities and advances digital accessibility in the workplace, addressing the needs of marginalised groups in the labour market. Supported by funding from Google.org, the research has the potential to shape policies and inform practices that promote greater inclusion in the workforce. The findings were reviewed by the Oireachtas Committee on Disability Matters in September 2024, which highlights the importance of this work in driving policy change in Ireland and beyond.

These collaborative efforts, including the partnerships with the European Disability Forum and COST Action Lead-Me, exemplify the power of collaboration in achieving SDGs. Such collaborations bring together experts, organisations and stakeholders across sectors to address critical issues of accessibility and inclusion.

The book launch and final meeting of the COST Action Lead-ME was held in Brussels. Speakers included MEP Katrin Langensiepen, Yngvar NordBerg from TV2 Skole (Norway), Rahel Luder from the European Broadcasting Union, and Alejandro Moledo from the European Disability Forum. Among the distinguished guests at the event hosted by LEAD-ME were Nuno Jesus, European Parliament Directorate-General for Innovation and Technological Support; Galina Krasteva, Adam Andras Markoc and Michel Dvorak, European Parliament Customer Experience Unit and Digital Accessibility Team; and Frankie Picron, Executive Director of the European Union of the Deaf.

Advancing Inclusive Education: KBS Future Thinking podcast explores accessibility and Universal Design

The KBS Future Thinking podcast continues to foster thought-provoking discussions on critical issues that are shaping the future of business, education and society. In the April 2024 episode, KBS Executive Dean Professor Finbarr Murphy and co-host Erin King welcomed Thomas O'Shaughnessy, Manager of the Educational Assistive Technology Centre (EATC) at UL, to explore accessibility, inclusive practice and assistive technology in higher education.

A graduate of UL with both a BSc in Computer Systems and an MSc in Software Engineering, Thomas is currently pursuing a PhD in education. With over 15 years' experience in promoting inclusive practice in higher education, he leads the EATC and oversees projects on accessibility, Universal Design for Learning (UDL) and assistive technology. He also delivers guest lectures on these crucial topics across undergraduate and postgraduate programmes.

The podcast discussion underscored the importance of embedding accessibility into the cultural framework of academic institutions. By integrating UDL principles into educational methodologies and communication practices, universities can better support diverse learning needs and foster an inclusive academic environment. As society evolves, so too must higher education so that teaching and learning strategies remain responsive to the needs of all students.

The conversation also highlighted the need to continually invest in training to ensure that staff keep pace with technological advancements and best practices in inclusive education. By prioritising accessibility, universities can enhance student experiences, improve outcomes and demonstrate leadership in fostering equitable learning environments.

By aligning with **SDG 4: Quality education** and **SDG 10: Reduced inequalities**, this episode of the KBS Future Thinking podcast contributed to the wider dialogue on sustainable and inclusive education and reflected UL's ongoing commitment to driving positive change in higher education through research, innovation and collaboration.

New BA Arts virtual module explores societal problems relating to sustainability through an intercultural lens

A new module entitled Exploring Societal Challenges through Intercultural Virtual Exchange was offered for the first time on the BA Arts programme in autumn 2024. The module formed part of the introduction of a bespoke alternative to Erasmus for students who are unable to avail of traditional in-person Erasmus mobility and who might otherwise be disadvantaged.

The aim of the module is to ensure that all students are provided with an enriching international education experience to help foster global citizenship. The module was designed by the Assistant Dean International in the Faculty of Arts, Humanities and Social Sciences (AHSS) as part of the TRIP Erasmus + Project and taught by university teacher Michelle Daly from TESOL/Linguistics and lecturer in German Dr Anita Barmettler. Students were mentored by international PhD students Hadjer Hammadi from Algeria and Gita Hati from Indonesia.

In its first iteration, the new module involved students exploring societal challenges relating to sustainability and climate change with peers from partner universities in EU and Global South countries, including Algeria, Indonesia and South Africa, by means of virtual exchange. To enhance their intercultural competence and employability more widely, students were provided with opportunities to develop their skills in areas such as intercultural communication, critical thinking, problem-solving and digital technologies.

The key student-led outputs from the module were the video campaigns that the students designed to raise awareness of shared challenges relating to climate change. Drawing on the new digital skills they had learned, the students explored these challenges through critical, intercultural perspectives. Feedback from the students was highly positive, with many commenting on how much they enjoyed working with peers from overseas universities and the valuable range of skills they had learned throughout the module. In addition, the PhD mentors noted how much they had learned from taking part and how some of this could be applied to their own studies.

This initiative directly supports SDG 4, which aims to ensure equitable access to quality education for all, and further strengthens UL's commitment to supporting the SDGs more widely.

The 5th LULITMI marketplace of ideas on integrating SDGs in democracy and public administration

The 5th annual LULITMI event took place on Thursday, 18 April 2024. LULITMI is an intensive, problem-based learning exercise carried out as a collaboration between first-year students of public administration in UL (BA Arts, Criminal Justice, Law Plus and Journalism & Digital Communication).

During the marketplace of ideas, students, working in groups, played the role of democracy and administration innovators. The innovators were tasked with exploring ways of governing LULITMI, an imaginary country that emerged from many years of colonisation. Students carried out research and assessed different ways to manage the nation's affairs.

Organised by module leader Dr Nita Mishra, this problem-based learning exercise, which was linked to the UN SGDs in 2024, was designed to provide an authentic and 'real world' connected platform for

student learning in the field of public administration, politics and sustainable development and introduce students to many of the graduate attributes promoted by UL. The exercise would be greatly enriched by the collective involvement of the UL community.

HAPPEE project: Transforming access to allied health support in regeneration communities

In 2024, the Health Alliance for Practice-based Professional Education and Engagement (HAPPEE) continued to provide transformative allied health support in Limerick's regeneration communities. This UL initiative places Occupational Therapy, Physiotherapy and Speech and Language Therapy students in six primary schools to deliver targeted support under the supervision of experienced clinicians from St Gabriel's Foundation. Academic oversight is provided by the School of Allied Health, UL.

HAPPEE uses a three-tiered 'continuum of support' model – universal, targeted and individual – to deliver inclusive, responsive interventions. Universal supports are delivered to entire classes, normalising access to therapy while benefiting all students. Targeted interventions support small groups while individual sessions focus on pupils with specific needs, helping them access the curriculum more effectively.

In its first full year of operation, HAPPEE facilitated 23 UL student placements, resulting in 1,655 therapeutic supports for schoolchildren and an impressive 98% attendance rate. The initiative has strengthened the connection between schools, families and health professionals, promoting a deeper understanding of children's needs and improving classroom engagement and outcomes.

Teachers across the six participating schools received professional development and bespoke resources tailored to their pupils' needs. The model has proved to be mutually beneficial: children receive high-quality support, schools gain capacity, and UL students develop valuable inter-professional skills within a community and paediatric context.

One Physiotherapy student, Niall Duffy, described his placement as "a win-win" that influenced his decision to continue volunteering after the formal programme ended. Feedback from parents, pupils, academic and clinical staff, and students has been overwhelmingly positive.

In recognition of its impact, the HAPPEE project won the Innovation in Primary Care Award at the Irish Healthcare Awards in December 2024. Funding from the What Works programme is supporting an in-depth evaluation of the project's long-term effects, with early findings describing the initiative as "genuinely transformational".

HAPPEE aligns with several SDGs, including **SDG 3: Good health and Well-being**, **SDG 4: Quality education** and **SDG 10: Reduced inequalities**. It exemplifies a collaborative, evidence-informed approach to improving health equity, educational access and community engagement through practice-based learning.



Occupational Therapy students Kayla Foley and Lea Meerholz delivering fine motor skill interventions with pupils from St. Mary's National School

K4C-4-Kids: Young researchers explore big questions through community partnership

In 2024, UL Engage continued its work as one of the European hubs of the UNESCO Knowledge for Change (K4C) consortium through the K4C-4-Kids programme – an initiative designed to introduce 11 to 13-year-old pupils to the world of research in an engaging, hands-on way. This junior researcher training programme encourages children to explore questions that matter to them and builds strong community links between UL, local schools and families.

Developed in partnership with the SFI Research Centre SSPC, St. Mary's National School and Our Lady of Lourdes National School, the project supported pupils to undertake independent research on topics of personal interest. Sample projects included: 'Do dogs make students happier?', 'Is cash still king?', and 'Which sport makes you fitter, soccer or boxing?' These

projects helped foster curiosity, critical thinking and teamwork while building early awareness of higher education pathways.

UL students on the Professional Diploma in Community Engagement – all of whom work as home school liaison coordinators – played an integral role in shaping the programme. They conducted in-school consultations with teaching staff and parents to improve the programme design and collaborated with Junior Achievement Ireland to incorporate best practice in working with primary-aged children.

Guided by regular feedback from school staff, the programme was delivered by UL Community Engagement Facilitator Niamh O'Sullivan. SSPC researchers facilitated an on-campus workshop that introduced pupils to the fundamentals of research, including how to choose and refine research questions. Teachers integrated the project into classroom activities and supported their pupils throughout the process.

The initiative culminated in a presentation day on campus, where pupils shared posters outlining their research findings. Certificates and medals were awarded to celebrate their achievements. Teachers reported that pupils felt confident and proud, with many speaking knowledgeably about their projects. One teacher noted that there were "more conversations happening in the classroom about third-level education. The pupils see it as a possibility in their lives."



Children from St. Mary's National School presenting their research

The K4C-4-Kids programme reflects a broader commitment to the UN SDGs, particularly **SDG 4: Quality education**, **SDG 10: Reduced inequalities** and **SDG 17: Partnerships for the goals**. It offers a model for inclusive, participatory education that strengthens community ties and promotes educational aspiration from an early age.

As the programme evolves, it continues to provide a space for young people to see themselves as researchers, creators of knowledge, and future contributors to their communities and society at large.

Teaching technical communication in Kenya

Supported by International Credit Mobility funding, Dr Yvonne Cleary of UL's School of English, Irish, and Communication spent a week at Pwani University, Kenya from 17 to 24 February 2024. Dr Cleary is collaborating with colleagues at the University of Applied Sciences, Karlsruhe, Germany and at Pwani University, Kenya to run the first year of a new master's programme in Communication and Media at Pwani University. The first of its kind in Africa, the programme was launched in autumn 2023 following a successful pilot in 2022/23. The programme builds capacity and responds to societal needs in the field of technical communication. The project is funded by the German Academic Exchange Service.

The main objective of the trip was to teach on-site in Kenya and to meet the current cohort of students in person. Teaching up to now has been online. A secondary objective was to continue curriculum development. Dr Cleary also took part in a panel discussion and delivered a presentation about technical communication during an event to launch the Master of Arts in Communication and Media for 2024/25.

This project aligns with **SDG 4: Quality education**, **SDG 8: Decent work and economic growth**, **SDG 10: Reduced inequality**, **SDG 17: Partnerships for the goals**, **SDG 1: No poverty** and **SDG 5: Gender equality**.



Launch of 2024/25 Master of Arts in Communication and Media at Pwani University, Kenya in February 2024

Immersive software engineering: Embedding sustainability and inclusion in tech education

In 2024, the Immersive Software Engineering (ISE) programme at UL deepened its commitment to sustainability, social inclusion and future-facing design through innovative teaching, impactful outreach and student-led community engagement.

A highlight of the year was a December visit from Dr Birgit Penzenstadler, a global leader in sustainable software engineering and co-author of the Karlskrona Manifesto for Sustainability Design. Dr Penzenstadler delivered interactive lectures and role-playing workshops on 'Environment as a Stakeholder' to ISE students. These sessions challenged participants to expand their understanding of stakeholders in software design – including nature – and to reflect critically on their own assumptions and biases. Through creative exercises such as designing a dating app for diverse user groups and exploring sustainability trade-offs via the 'Tarot Cards of Tech', students developed deeper insights into inclusive, ethical and ecologically aware design practices.

ISE's 2024 outreach efforts also demonstrated a strong commitment to equity and education (SDG 4) and reducing inequalities (SDG 10). Working in partnership with UL's Access Office and the Academy for Children, ISE welcomed over 100 students from DEIS primary and second-level schools to explore coding and software development. ISE also participated in the All-Ireland STEM Passport for Inclusion programme and Mentoring for Equality with Youthreach, sponsoring four students from underrepresented communities to access hands-on STEM learning and mentoring opportunities.

ISE students and staff actively contributed to several initiatives designed to build confidence, curiosity and future pathways for young people. This included delivering the Energizer programme with Junior Achievement Ireland, supporting Teen Turn workshops on campus, and participating in ENGAGE with IT@MIC. ISE students also mentored second-level students individually, developed interactive digital content, and took part in a Givebackathon, which involved providing technical support to charities tackling social challenges.

These activities not only empowered future tech leaders but also fostered a strong culture of civic responsibility, environmental awareness and social justice in software engineering education. Through these initiatives, ISE has aligned its teaching and outreach with several UN SDGs, particularly **SDG 4: Quality education**, **SDG 5: Gender equality**, **SDG 10: Reduced inequalities**, **SDG 12: Responsible consumption and production** and **SDG 13: Climate action**.



Dr Birgit Penzenstadler, a global leader in sustainable software engineering and co-author of the Karlskrona Manifesto for Sustainability Design

UL students win EU competition with vision for youth engagement

Three UL students won a national competition and earned the opportunity to present their policy proposal to members of the European Parliament in Brussels in April 2024. The competition invited young people aged 13 to 30 to propose solutions to key challenges and ways of strengthening the connection between the EU and its youth in line with the European Youth Goals.

Naomi Ohenhen (MSc Work and Organisational Psychology), Busayo Atijohn (MA Business Management) and Feruza Rameto (Biological and Chemical Sciences) secured first place with their proposal entitled Re-building the Future We Desire. Their vision for fostering a stronger relationship between the EU and young people impressed the judges and gained significant public support, earning 173 votes on social media.

Explaining their motivation, Naomi said, "We just want to build a Europe that we desire. There's so much potential in the EU and the youth. We are the future of the EU, and we need more people our age or who look like us in those rooms."

Their proposal outlined practical strategies to enhance youth engagement, including the creation of an EU youth-led social media team, the development of community and recreational centres in rural areas, and the introduction of eco-efficient bikes in rural towns.

KBS Professor Deirdre O'Shea praised the students for their achievement, saying, "As an educator, witnessing our students take this opportunity to contribute to important EU policy discussions fills me with immense pride. Their dedication, innovation and commitment to shaping the future of Europe are truly commendable. Congratulations to Naomi, Busayo and Feruza on this outstanding success."

Trauma-informed teaching conference

A virtual conference on trauma-informed teaching took place on Wednesday, 14 February 2024. Hosted by AHSS colleagues Dr Maria Rieder (lead), Dr Angela Farrell, Dr Jane Mulcahy, Dr Darina Slattery and Dr Elaine Walsh, the conference was the first component of the Erasmus+ Blended Intensive Programme (BIP) on trauma-informed teaching. The BIP brings together colleagues from eight European universities – UL, Ireland; Flensburg, Germany; Inland Norway, Norway; Rennes 2, France; A Coruña, Spain; Thrace, Greece; Pafos, Cyprus; and Mateja Bela, Slovakia) – to develop resources for third-level educators on how to respond to students who may experience trauma and toxic stress symptoms. Three different working groups presented preliminary content and materials at the conference. The initiative was held online and in person over five days at UL in May 2024, which culminated in the development of a resource toolkit to assist academic and support staff in creating trauma-sensitive learning environments.

GLSD students reflect on sustainability on Cloughjordan Eco Village trip

On Saturday, 16 March 2024, students from the Global Leadership for Sustainable Development (GLSD) programme embarked on a transformative journey to Cloughjordan Eco Village. Arranged as part of the programme's curriculum, the visit provided students with a unique opportunity to explore sustainable living practices in action.

The journey to Cloughjordan Eco Village began early in the morning as students departed from UL with anticipation and excitement. Upon arrival, they were greeted by the serene surroundings of the village and wasted no time delving into their exploration.

Led by experienced guides, students embarked on a comprehensive tour of the village, learning about various sustainable initiatives along the way. From eco-friendly building techniques to community-supported agriculture, each aspect of the village served as a testament to the Cloughjordan community's commitment to environmental stewardship. Interactions with members of the community added depth to the students' learning experience. While engaging in discussions on topics like reducing carbon footprints and promoting biodiversity, students gained valuable insights into the real-world challenges and opportunities associated with sustainable living.

As the visit came to an end, students left Cloughjordan Eco Village with a renewed sense of purpose and determination. Inspired by what they had witnessed, many expressed a desire to become advocates for sustainability in their own communities. The trip served as a catalyst for personal and collective action towards building a more sustainable future.

GLSD is a seven-week extracurricular programme designed by the UL Centre for Sustainable Futures and Innovation in collaboration with UL Global. The programme brings together study abroad, Erasmus and full-degree students from across the world to actively learn about systemic approaches and challenges to sustainability across the economy, environment and society. Students hear from expert guest speakers both on campus and through site visits, engage in debates and discussions on contemporary sustainability issues, and work in interdisciplinary teams to co-create student-led sustainability projects to be implemented on campus.

Student-led Sustainability

Empowering students to lead sustainable change

In December 2024, partnering with UL Global's Study Abroad section, the Centre for Sustainable Futures and Innovation announced that the Student Leadership for Sustainable Development (SLSD) programme would run from February to March 2025. This seven-week extracurricular initiative invites both international and domestic students to engage in meaningful discussions about sustainability on campus and in the wider community. Participants will explore a range of topics, including a brief history of sustainability, various dilemmas in a Dilemma Café, sustainability in entrepreneurship, and UL's mission-based approach to sustainability.

SLSD aims to address the growing need for sustainability awareness and action among students. By fostering a deeper understanding of sustainability issues and encouraging innovative thinking, we hope to empower students to become leaders in sustainable development.

The potential impact of the programme is significant. By engaging students in thought-provoking discussions and collaborative projects, we are nurturing a generation of informed and proactive individuals who can drive sustainable change within their communities and beyond. SLSD aligns directly with **SDG 4: Quality education** and contributes to other goals, such as **SDG 13: Climate action**.

SLSD is supported by the Centre for Sustainable Futures and Innovation, which plays a crucial role in organising and facilitating the sessions. The partnership with UL Global ensures diversity among participants. At the launch, Student Sustainability Coordinator Elisa Minoue stated, "This programme is a fantastic opportunity for students to not only learn about sustainability but also to actively contribute to creating a more sustainable future. We are excited to see the innovative ideas and projects that will emerge from these discussions."

Giving Voice

At University of Limerick, we firmly believe that inclusive and equitable quality education is the cornerstone of a thriving society. By fostering lifelong learning opportunities for all individuals through traditional research-led certificates, diplomas and degrees to doctoral level as well as innovative micro-credentials, apprenticeships and professional education programmes, we empower people to reach their full potential and contribute meaningfully to a sustainable and just future.

Professor Ann Ledwith
Interim Provost and Deputy President



5 GENDER EQUALITY

Achieve gender equality and empower all women and girls.

UL academic wins 2024 European Research Council public engagement award

UL's Professor Orla Muldoon was awarded the 2024 European Research Council (ERC) Public Engagement with Research Award. The prize recognises ERC grantees who successfully engage audiences from outside their academic domain. Founding professor at the Department of Psychology and Director of the Centre for Social Issues Research at UL, Professor Muldoon was awarded almost €2.5m in ERC funding for research in the area of trauma.

Professor Muldoon's public engagement is linked to her ERC project entitled 'A Social Identity Model of Trauma and Identity Change: A Novel Theory of Post-Traumatic Stress, Resilience and Growth'. The public engagement addressed gender-based violence as a societal and public health issue, challenging the view that it is solely a personal or intimate problem.

Through research and public advocacy, Professor Muldoon and her team highlighted how the risk of gender-based violence shapes women's social identities and has serious mental and physical health implications. The project aimed to shift the narrative away from seeing violence against women as a 'women's issue' and instead focused on its systemic, patterned nature.

Following the tragic murder of a young woman while out running in Ireland, Professor Muldoon engaged the media, NGOs and policymakers to raise awareness and push for political change. Cited by many journalists and policymakers and in Dáil Éireann, her contributions enabled the statutory agency Cuan – dedicated to tackling gender-based violence – to be established.

The ERC received 99 applications from ERC grantees across 20 countries, from which six winners were chosen. The names of the laureates were announced in an award ceremony in Brussels on 24 October 2024.

Comprising experts in public engagement and science communication, the jury praised Professor Muldoon's project for its "highly effective real-time communication, courage and passion" and noted that it succeeded in gaining national media attention and achieving political change with very limited resources. The citation remarked upon how Professor Muldoon's efforts have not only deepened understanding of gender-based violence but also led to concrete societal and policy shifts in Ireland.

Based on her research and published in May 2024, Professor Muldoon's book *The Social Psychology of Trauma: Connecting the Personal and the Political* re-examines what we know about trauma. In line with the ERC's commitment to making its funded research available to the public, the book is also free to download in digital form.

Speaking after the award ceremony, Professor Muldoon expressed her surprise and delight on receiving the award: "This award had come as a complete surprise. It really is an honour to receive it. I am very grateful to the panel for their positive view of our work at University of Limerick. I am also really grateful to my colleagues in the Department of Psychology at UL and, in particular, the researchers who work with me in the GROWTH lab. The award is as much theirs as mine."

September SDGs: Inequality and social sustainability

The ARC Accountability Research Cluster at the KBS hosted a two-day seminar on the role of academic research and practice in addressing social inequality. The event explored **SDG 5: Gender equality** and **SDG 10: Reduced inequalities** and brought together diverse perspectives on these critical issues.

The first day featured research presentations on both SDGs and was followed by discussions and Q&A sessions. The second day examined the role of higher education in advancing equality-focused SDGs, with contributions on teaching, engagement and sectoral best practices. Speakers included experts from international institutions such as Northumbria University, Royal Holloway University of London and The New School, New York alongside researchers from UL and the KBS. The presenters' insights provided interesting perspectives on accountability, economic inequality, responsible education and the role of accounting in shaping social structures.

The ARC Accountability Research Cluster is committed to examining power, trust and expertise within the framework of the SDGs and the common good. Its work spans areas such as economic inequality; environmental, social and governance factors; and the role of accounting in understanding risk and value.

UL hosts international conference on narratives of crisis in Ibero-American

Co-organised by Associate Professor Mariano Paz and Associate Professor Xosé P. Boán (School of Modern Languages and Applied Linguistics), the international conference 'Crises in Ibero-American Graphic Narratives: Utopia, Liminality & the Anthropocene' took place in UL in early May 2024. It gathered scholars on graphic narratives and popular culture from universities in Argentina, France, Germany, Ireland, Spain and the US.

The conference explored how the graphic medium has engaged with narratives of crisis in the Ibero-American world, including topics on personal, social and economic crises as well as migration, gender and utopian narratives. The conference was sponsored by the Ralahine Centre for Utopian Studies and funded by the EU through the e-Cost action iCOnMICs, the Faculty of AHSS and the School of Modern Languages and Applied Linguistics. A panel of final-year UL students presented on graphic narratives and gender in Spain.

Delivered in both English and Spanish, the conference contributed to **SDG 5: Gender equality**, **SDG 3: Good health** and well-being and **SDG 13: Climate action**.

Empowering women through partnership: UL students collaborate with WCI Limerick

In late 2023 and early 2024, students from the Community Wellness, Empowerment, Leadership and Lifeskills (CWELL) Diploma and the Professional Diploma in Community Engagement collaborated on a co-designed research project with Women's Collective Ireland Limerick (WCI Limerick). With a focus on **SDG 5: Gender equality**, the aim of the project was to document the impact of WCI Limerick's work and the various programmes it offers to women in the community.

Formerly known as Limerick Women's Network, WCI Limerick is part of the national WCI network, which promotes gender equality through feminist and community development principles. WCI Limerick offers support services on topics such as healthcare access, domestic violence, and education and employment opportunities. it also runs creative workshops, community singing groups and leadership courses to increase women's participation in public life. WCI Limerick's efforts were instrumental in establishing the Limerick Women's Caucus – the first of its kind at local level in Ireland.

The student-led project adopted a community-based participatory research approach. Two methods were used: a World Café-style focus group and an online survey. Findings indicated that WCI Limerick had a meaningful impact on participants, with many describing the experience as empowering and even life-changing. Courses and social events were noted as particularly effective in fostering engagement. WCI Limerick Coordinator Yvie Murphy commented on the partnership with UL: "In terms of working with the UL students, it was absolutely fantastic. Their enthusiasm, their drive, their passion – it was brilliant. They linked in with us regularly and were open to new learning. The final report is incredibly useful and meaningful to us." The report to which Yvie refers was launched in May 2024; it aims to raise awareness of WCI Limerick's work across the region and to support advocacy efforts for raising more funding.

UL 'unlocked infinite potential' by hosting a Women in Mathematics event

On 10 May 2024, UL hosted an event highlighting the ongoing global gender imbalance in the field of mathematics. UL welcomed the Irish Committee for Equality, Diversity and Inclusion in Mathematics (ICEDIM) for Women in Mathematics Day 2024. Organised by ICEDIM – a sub-committee of the Irish Mathematical Society – the event aimed to support underrepresented groups in mathematics across Ireland.

Facilitated by the Department of Mathematics and Statistics and the Mathematics Applications Consortium for Science and Industry (MACSI), the conference featured a range of esteemed speakers, including UL Research Integrity Officer Professor Natalia Koptev and Dr Rachel Quinlan, Lecturer at the University of Galway and Vice President of the Irish Mathematical Society. The event was registered with the global May12 initiative, which honours women in mathematics worldwide in memory of Maryam Mirzakhani, the first woman and Iranian mathematician to receive the Fields Medal.

The conference opened with an address from Dr Marie Connolly, UL's Director of Human Rights, Equality, Diversity and Inclusion. Dr Connolly emphasised the importance of empowering young

women in mathematics: "It goes beyond solving equations; it's about unlocking infinite potential and building a more inclusive and equitable world."

On behalf of the organisers, Dr Romina Gaburro, Lecturer in Applied Mathematics at UL and Conference and EDI Chair of the Irish Mathematical Society, said, "We are delighted to bring this conference, pioneered by MACSI, back to UL to highlight the historical underrepresentation of women in science, particularly mathematics. According to a recent Government of Ireland report, just a quarter of nearly 120,000 people working in STEM are women. Mathematics as a career has so much to offer, and UL has many female thought leaders recognised both nationally and internationally. We want to celebrate their success while encouraging others to follow in their footsteps. Our message is clear: mathematics is for everyone, and ICEDIM is committed to making this a reality."

Following UL's successful hosting of the Irish Mathematical Society annual conference in August 2023, the event built on the University's strong record of engagement with the mathematical community.

Professor Ita Richardson wins Empowering Women Award

Leading UL and Lero academic Professor Ita Richardson was among the winners at the 16th Annual Women Mean Business (WMB) Conference, which was held in Dublin in September 2024. Professor of Software Quality in the Department of Computer Science and Information Systems and Co-PI of Lero, Professor Richardson was honoured by being presented with an Empowering Women Award at the awards ceremony.

The event celebrated the achievements of businesswomen, academics and female entrepreneurs across Ireland. Professor Richardson was presented with the WMB Empowering Women Award in recognition of her contributions to research, academia and the promotion of gender equality.

The conference theme was "Be the Change" – a sentiment clearly embodied by the 2024 awardees. Five awards were presented in total, with Rose Kidd, President of Operations Delivery at ICON, receiving the overall WMB Businesswoman Award 2024. Other winners included Helene Hugel of Helium Arts, who received the FTI WMB Female Entrepreneur Award; Rebecca Keenan of Expleo Group, winner of the Fidelity WMB Woman in Technology Award; and Lauren McKenna of Positive Carbon, who was named the Compass WMB Rising Star for 2024.

Professor Lionel Briand, Director of Lero, praised Professor Richardson for her leadership and commitment to diversity: "I am immensely proud to see Ita honoured with the WMB Empowering Women Award. This recognition is a testament to her outstanding contributions, particularly in promoting equality. Ita's work has helped create a more inclusive and equitable future for those pursuing education and careers in computer science."

Minister of State for Business, Employment and Retail Emer Higgins TD congratulated the winners at the event and highlighted the government's ongoing efforts to promote gender balance. "In 2021, I introduced the Irish Corporate Governance (Gender Balance) Bill and supported the Gender Pay Gap Information Act. Positive momentum is building, and initiatives like Balance for Better Business, with its ambitious targets for female representation, offer hope for a more inclusive future."

WMB Managing Director Rosemary Delaney expressed her pride at the event, saying,

> "There is a tangible energy at the WMB Awards that reinforces our mission to encourage and promote Ireland's female role models. Despite progress, challenges remain, with Ireland's gender pay gap standing at 9.6%. Our finalists and winners are playing a crucial role in driving positive change."

Giving Voice

For me, sustainability is about connecting with people and nature around us to think, talk and act for the future we want for our world.

Una McInerney
Mission Lab Portfolio Manager, Centre for Sustainable Futures and Innovation



6 CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all.

UL researchers discover solution to eliminate 'forever chemicals' from drinking water

In collaboration with colleagues from the Technical University of Munich (TUM) in Germany, UL researchers developed a groundbreaking material to eliminate so-called 'forever chemicals' from drinking water.

The team discovered a new method to filter harmful chemicals – known as per- and polyfluoroalkyl substances (PFAS) – that have been used since the 1940s across industries for their resistance to heat, oil, stains, grease and water. However, the chemicals became infamous for their environmental persistence and potential to accumulate in the human body, leading to serious illnesses such as liver damage, tumours and hormonal disorders. Working together, the UL and TUM researchers created an efficient filtration method using metal-organic framework (MOF) compounds, which performed significantly better than existing materials. These MOFs are capable of capturing even extremely low concentrations of PFAS in water.

Dr Soumya Mukherjee, Assistant Professor of Materials Chemistry at UL's Department of Chemical Sciences, led the development of the porous, sponge-like MOFs. The research was recently published in the Advanced Materials journal. "The filters demonstrated removal performance even at concentrations as low as a few parts per billion – only a handful of PFAS molecules among billions of water molecules", explained Dr Mukherjee. "This marks the first instance of trace PFAS removal from freshwater containing two parts per billion using porous adsorbent materials that show both rapid removal kinetics and excellent recyclability."

The team identified water-stable zirconium carboxylate-based MOFs as particularly effective. Characterised by adaptable pore sizes, specific surface chemistry, water resistance and strong electrostatic charges, these materials significantly outperformed traditional materials like activated carbon and special resins.

Dr Mukherjee emphasised the societal importance of this innovation: "PFAS, once heralded for their technological benefits, now spin a web of contamination across ecosystems worldwide. By innovating a new adsorbent design approach, we have taken a step towards mitigating their harmful effects. Our team's collaboration was as crucial as the chemistry itself."

However, researchers noted that moving from laboratory discovery to widespread application would require further development. According to Dr Mukherjee, "Scaling this innovation to industrial water treatment facilities will demand extensive process engineering and sustainable, cost-effective material solutions."

While large-scale use may be some time away, this breakthrough offers new hope in addressing one of today's most persistent environmental threats.

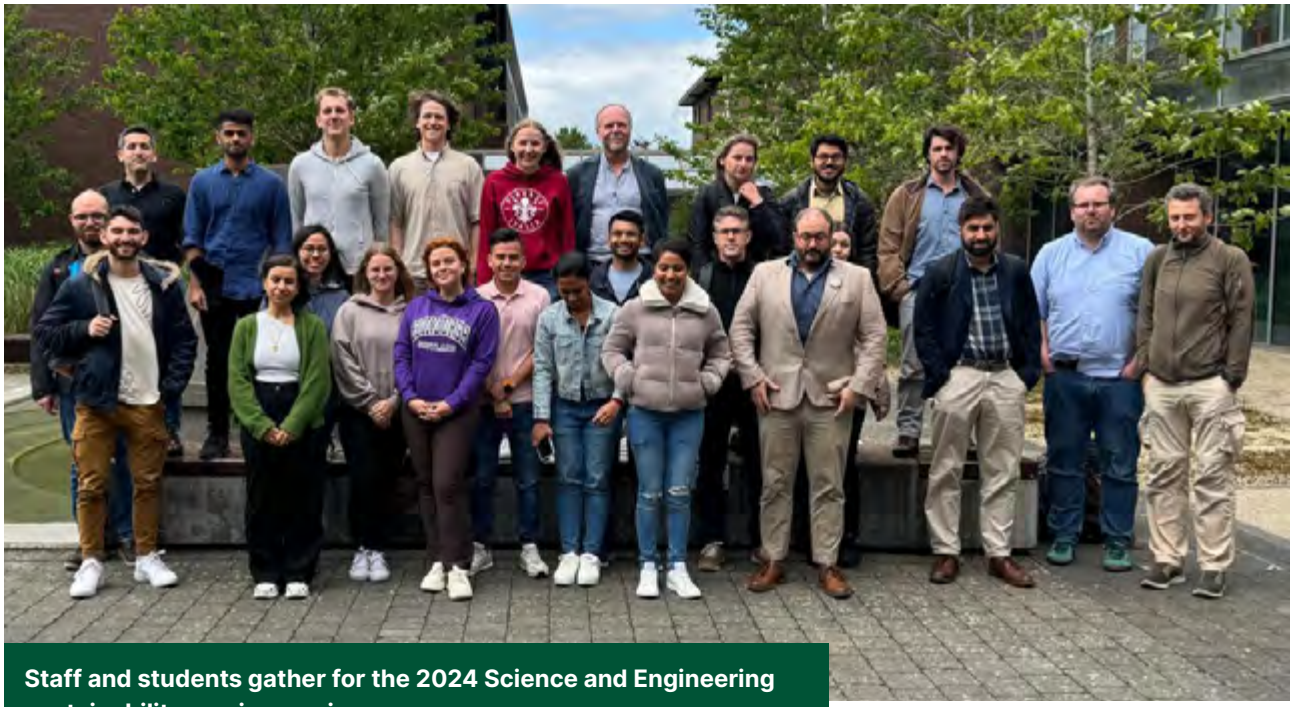
Faculty of Science and Engineering sustainability seminar series

Two seminar series were organised in the Faculty of Science and Engineering during 2024 to disseminate lessons learned in implementing good practice in the laboratory. The seminars were delivered in the context of the 2024 My Green Labs certification processes of the Department of Biological Sciences and Department of Chemical Sciences and the Bernal Institute's Bio Labs 2023 recertification process.

The seminars were presented in the broader context of UL's participation in local and national sustainability initiatives since 1999, including the formation of the UL Environmental Society, Green Campus initiative and Smarter Travel and participation in the Office of Public Work's Optimising Power @ Work campaign.

The first seminar series, entitled Design and Engineering of Sustainable Materials (DESUM) Training School, was coordinated by Charlie O'Mahony (Ehtsham Ul Haq), Pierre Cazade and Tofail Syed (Department of Physics and Bernal Institute) and Ivanna D'Arcy (UL Global) and featured an afternoon of seminars on sustainability in the laboratory. The seminars introduced master's students from three Eramus+ partners to the urgent need to integrate sustainable practices into laboratory operations. The participating partner universities were Münster University of Applied Sciences, Germany; Wroclaw University of Science and Technology, Poland; and University of Limoges, France.

The second seminar series – three online webinars – was coordinated for Science Week by Mary Ferry, Special Projects' Officer, Faculty of Science and Engineering.



Staff and students gather for the 2024 Science and Engineering sustainability seminar series

Both series started with a whistle-stop tour of UL's journey towards sustainability in the Faculty of Science and Engineering. Case studies from the Bernal Institute highlighted innovative practices in water, waste and energy conservations and asked the question: As scientists and engineers, what can we influence in the lab?

Sessions on the My Green Lab programme showed participants how to implement sustainable actions within their own organisation and work towards achieving My Green Lab certification with a view to fostering a greener laboratory environment.

The DESUM seminars concluded by introducing the principles of green chemistry and green engineering to the next generation of scientists and engineers with the intention that they would not only apply the principles in their week of laboratory-based practical work as part of the Blended Intensive Programme but also in their future careers.

The Science Week webinar series concluded by emphasising the importance of collaboration in climate action. Citizen Information Lab (CIL) is a joint initiative between UL and Limerick City and County Council to drive sustainable change in our community. The session explored CIL's various tools and approaches, including Fab Lab Limerick, and how to get involved in transformative projects that connect communities, researchers and local government.

These seminars relate to **SDG 3: Good health and well-being**, **SDG 4: Quality education**, **SDG 6: Clean water and sanitation** and **SDG 7: Affordable and clean energy**.

Giving Voice

For me, sustainability requires both vision and action. This is something I appreciate about the sustainable development goals, which are built around a vision of peace and prosperity, but understand that this can only be realised by the combined efforts of everyone. This call to action informs my vision for education in the current world and our collective responsibilities as researchers, teachers and creative artists.

Professor Helen Phelan
Director, Irish World Academy of Music and Dance



7 AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all.

UL leads the way for more sustainable, longer range and faster-charging batteries

UL is strategically positioned to be the European focal point for pioneering research in next-generation batteries. AMPEiRE – the National Rechargeable Battery Fabrication and Test Facility – was launched on 8 July 2024 at the Bernal Institute by Minister of Further and Higher Education, Research, Innovation and Science Patrick O'Donovan TD.

As a one-stop shop for battery development, the facility will create materials for more sustainable energy-efficient batteries from implantable medical devices and consumer goods to electric vehicles and beyond. The facility's infrastructure will enable the manufacture of prototype batteries from single cell and coin cell to pouch cell level, which is crucial for transforming battery research to battery fabrication while matching industry standard.

Speaking at the launch, Minister O'Donovan said, "There is an increasing demand for more powerful mobile devices and longer-range and faster-charging electric vehicles. Our citizens, our education and industry partners and our future generations need and want greener products and services. In alignment with national policies such as the government's Research and Innovation Strategy Impact 2030 and our Climate Action Plan, funding infrastructure such as this facility is helping Ireland transition to a sustainable future."

According to Professor Kevin M. Ryan, Director of Bernal Institute and lead investigator of AMPEiRE, "This infrastructure is a game changer for battery research in Ireland, providing a crucial link between novel research on new chemistries for higher-performing batteries in UL and our collaborator institutions and the battery fabrication capability needed to demonstrate this at industry-relevant cell formats."

Vice President Research Professor Norelee Kennedy added, "This kind of facility will help UL researchers to push the boundaries of fundamental research into battery development. There is a strong collaborative and industry focus for the work being carried out in the facility, which is a hallmark of UL throughout its history."

Making a more optimised, efficient, energy-dense lithium-ion battery requires multiple innovations across all key components: anode, cathode and electrolyte. The EU's demand for critical raw materials such as lithium, copper and cobalt, which are fundamental to current battery development, is projected to increase exponentially.

Co-funded by SFI and SEAI (Sustainable Energy Authority of Ireland), AMPEiRE will enable simultaneous research on conventional lithium-ion batteries and new frontier energy storage technologies such as Li-S, Li-O2, Al-ion and Na-ion batteries, thereby future-proofing the facility against alternative battery chemistry developments.

Speaking at the launch, SFI Deputy Director General Dr Ciarán Seoighe said, "SFI is pleased to have been able to support this important initiative under SFI's Research Infrastructure programme. Advances in battery technology will be critical in supporting the green transition. The facility will help spearhead pioneering research in next-generation batteries, creating transformative collaborations and making Ireland an attractive location for the recruitment of world-leading scientists and engineers."

Kerrie Sheehan, SEAI Head of Research and Technology, added, "SEAI is delighted to collaborate with SFI in supporting the National Rechargeable Battery Fabrication and Test Facility' at the Bernal Institute. Rechargeable battery technology is vital in enabling advancements in renewable energy as well as reducing emissions and waste."

Circular economy principles applied to light fittings on campus

The introduction of the Reduction of Hazardous Substances (RoHS) Directive and the Ecodesign Regulation restricts the use of certain hazardous substances in electrical and electronic equipment (such as the use of mercury in lighting products) and has resulted in the phasing out of products that fail to meet efficiency requirements. Due to their age profile, almost all of UL's buildings are affected. While Buildings and Estates was able to stockpile a small number of spares, which are now no longer available to purchase, all affected fittings will eventually need to be upgraded to LED.

With this in mind, Buildings and Estates undertook a pilot upgrade project of two of the most popular light fitting types – 600 x 600 modular fittings and circular fittings. A total of 1,700 fittings were selected for upgrade across the Computer Sciences, Foundation, Library Phase 1 and Main buildings. Being cognisant of government policy moving towards a circular economy – keeping resources in circulation for as long as possible and minimising waste – Buildings and Estates set about researching suppliers who could meet the twin objectives of reutilising the current infrastructure as much as possible and providing a LED fitting. For the 600 x 600 modular fittings, it was established that a bespoke high-quality LED insert on the market could facilitate the reuse of the current fitting's carcass and diffuser.

Complementing this, the lamps and ballasts of the current fittings could be harvested to extend the lifespan of similar fittings elsewhere on campus. For the circular fittings, it was found that a custom-made product that uses 3D printed sleeves (using recycled plastic) and a standard LED light fitting eliminated the need to replace ceilings as part of planned energy efficiency upgrades. Over the course of the project, the 1,700 fittings were replaced using €390,000 of strategic funding; this saved in excess of 1 million kWh and nearly 100,000 kg of CO^2 annually. Thousands more fittings on campus are affected by the Restriction of Hazardous Substances (RoHS) Directive and Ecodesign Regulation and will need to be upgraded to LED.

The projected demonstrated that supporting the circular economy by retaining and reusing the majority of existing light fitting parts was possible while simultaneously reducing recurrent energy and CO^2. According to Buildings and Estates Energy Manager Chris Fogarty, "Undertaking this project demonstrated it is possible to support government policy on both the circular economy and climate action without compromising on the quality of the delivered end-product."

Public policy and the emergence of battery energy storage systems

Decarbonising the electricity grid is one of the chief challenges facing Ireland. It involves scaling up renewable energy sources, such as wind and solar, and reducing our reliance on fossil fuels, such as gas and coal, to generate electricity. Due to their intermittency, renewable energy sources create new challenges for the grid, which can be met by developing sources of electricity that provide flexibility, such as energy storage and interconnection with neighbouring countries' energy supplies.

Utility-scale battery energy storage systems (BESS) are a key form of energy storage, and their rapid rollout around the world in the past decade has been shaped by public policies: the regulatory and financial policies that facilitate – and sometimes present barriers to – their deployment.

Dr Conor Little (Department of Politics and Public Administration, UL) and PhD student Marc Ayoub (University of Galway) investigate these policies in their SEAI-funded report Public policy and the emergence of battery energy storage systems: A cross-national study and lessons for Ireland. In Ireland, the deployment of BESS has been supported by key policies, including ambitious high-level goals for greenhouse gas emissions and renewable energy by 2030, climate policies that acknowledge the important role of storage, the DS3 market for system services and the establishment of capacity markets that accommodate storage.

Ireland can learn lessons from other countries' experiences, and with that in mind, the report compares 12 European and non-European countries and finds great diversity in BESS policy mixes. While government intervention seems universally necessary to facilitate the development of storage and BESS, there is no single successful policy formula, and the development of BESS is highly dynamic. Nonetheless, the report identifies several common policy markers of policy leadership and derives lessons for Ireland.

Marc and Conor have since engaged with key stakeholders on the report, including the Department of Climate, Environment and Energy and the Commission for the Regulation of Utilities. The project was funded by an SEAI RD&D grant (PI: Dr Tadhg Kennedy) and was also supported by a UL 2030 Graduate Bursary.

Giving Voice

In the context of sustainability, resilience emerges as a critical construct – it refers not only to the capacity of global populations to withstand and adapt to escalating climate-related risks and entrenched social inequities but also to the robustness of governance frameworks designed to manage such challenges. Today, there is a unique opportunity to conceptualise and implement systems that enhance societal resilience for future generations. This involves establishing integrated financial and physical infrastructures capable of both mitigating risk and providing adaptive capacity in the face of adverse events, particularly through the development of inclusive and forward-looking financial and insurance mechanisms.

Emer Owens
PhD student, Department of Accounting and Finance,
Kemmy Business School



8 DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

UL wins Higher Education Partner of the Year Award at Asia Matters Business Awards 2024

In November 2024, UL staff attended the Asia Matters Business Awards in Dublin where UL was honoured with the Higher Education Partner of the Year Award. The event was hosted by Gráinne Seoige, and guests enjoyed musical performances.

Asia Matters is Ireland's only Asia think tank. Founded in 2012 by the late Dr TP Hardiman, Alan Dukes and Martin Murray, Asia Matters focuses on building dynamic business links and informed understanding between Asia, EU and Ireland to drive partnerships and economic growth.



Pictured at the ASIA Business Awards were Michael Hennessy, Fiona O'Kearney, Colin Fitzpatrick, Kenneth Stanton, Sean McGrath, Aoife Duke and David Tracey.

Student-led Sustainability

GLSD: Chris Kelly's insights on sustainable business practices

On Tuesday, 20 February 2024, Cohort Two of the Global Leadership for Sustainable Development (GLSD) programme welcomed Chris Kelly, CEO of Tracworx, to deliver a session on sustainable business practices. Chris shared his entrepreneurial journey and shed light on the importance of integrating sustainability into business operations.

As the CEO of Tracworx, a Limerick-based tracking platform for reusable logistics containers, Chris brought a wealth of experience to the discussion. He explained how his company's vision of sustainability and cost-consciousness has revolutionised industries that deal with high volumes of such items as boxes, pallets and kegs.

During the captivating session, Chris emphasised the pragmatic approach needed to address sustainability challenges. He highlighted the role of businesses, innovation and startups in driving sustainable practices, stressing the importance of practical solutions that balance environmental concerns with economic viability.

Chris Kelly's insights provided GLSD Cohort Two with valuable lessons on the intersection of business and sustainability. As future leaders, students were inspired to adopt innovative approaches in their own endeavours, fostering a mindset of sustainability-driven entrepreneurship.

Giving Voice

Today's generation has inherited complex issues. The world's problems are infinite but resources are finite, and it's going to take new ways of thinking and new tools and techniques to solve these problems and achieve what is set out in the SDGs. I believe software solutions and emerging technologies will be key to tackling these issues with the students of UL leading the charge.

Gillian Place
Immersive Software Engineering (ISE) Public Engagement Office, Department of Computer Science and Information Systems, Faculty of Science and Engineering



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Exploring the role of marketing in shaping sustainable market systems

Marketing is a powerful force in shaping economies and societies. Traditionally seen as a way of driving consumption and economic growth, marketing also influences the way markets operate. Emerging trends such as influencer marketing, algorithm-driven advertising and consumer reviews are transforming how products are discovered, valued and consumed. These evolving dynamics establish norms that impact entire market systems, raising important questions about their sustainability and ethical implications.

Dr Annmarie Ryan's research at the KBS examines how digital technologies such as artificial intelligence, automation and service platforms are reshaping marketing work. With digital tools enabling rapid shifts in how marketing is performed, professionals must continually adapt by balancing new technological capabilities with ethical considerations. Through an extensive research initiative involving MSc students, Dr Ryan collected over 700 real-world accounts of marketing professionals, which provided her with valuable insights into how digital tools shape marketing practices, particularly for small businesses and interdisciplinary teams.

Two key trends emerge from Dr Ryan's research: (i) vertical integration, where digital tools allow marketers to handle multiple aspects of their work, from content creation to data analytics; and (ii) increasing specialisation, with certain tasks being outsourced to specialised agencies. This dual shift underscores the evolving role of marketers, who must now act as coordinators of fragmented yet highly interconnected activities. Understanding these shifts is crucial to ensuring that digital marketing practices align with sustainable and ethical market development.

Dr Ryan's research directly informs her teaching, particularly through the Digital Futures Lab initiative at the KBS. By encouraging students to explore how market systems are configured, Dr Ryan equips them with the skills to envision and prototype sustainable alternatives. Marketing is not just about selling products; it has the potential to drive systemic change, embedding values such as fairness, care, equity and environmental responsibility into business practices.

This research and teaching approach aligns with the UN SDGs, particularly **SDG 9: Industry, innovation and infrastructure** and **SDG 12: Responsible consumption and production**. By critically examining how digital marketing shapes consumer behaviour and production systems, Dr Ryan's work highlights the need for ethical and sustainable marketing strategies that can contribute to a more equitable economy. In her own words: "Marketing is more than just a set of tools – it's a way of thinking about markets and their impact. If we can embed sustainability into marketing practices, we have the opportunity to drive real change in business and society."

Understanding the risk profile of electric vehicles in road traffic accidents

A study conducted by Lero and UL researchers revealed that drivers of electric vehicles (EVs) are more likely to be involved in at-fault road traffic accidents than drivers of petrol and diesel cars. Published in the November 2024 issue of the *Accident Analysis & Prevention* journal, the research analysed insurance claims and data from onboard vehicle sensors to provide new insights into the risk factors associated with EVs.

The study highlights key findings, including that EV and hybrid drivers exhibit different driving behaviours than those of internal combustion engine (ICE) vehicles. It also identifies a 4% increase in at-fault crashes for EVs and a 6% increase for hybrids when compared to traditional vehicles. Furthermore, EVs are found to be 6.7% more expensive to repair than their petrol and diesel counterparts.

Dr Barry Sheehan, Lero researcher and co-director of the Centre for Emerging Risk Studies at the KBS, explains that despite EV drivers covering lower average mileages than ICE drivers, their risk of experiencing an at-fault insurance claim remains higher. Statistical models indicate that hybrids do not show a significant increase in at-fault claims beyond this percentage, but EVs do present a higher risk profile.

Lead researcher Kevin McDonnell of Lero adds that their analysis suggests EVs and hybrids should theoretically have a lower probability of at-fault claims due to reduced mileage. However, predictive modelling and risk analysis contradict this assumption, showing that EVs, in particular, experience more at-fault claims than expected.

Professor Finbarr Murphy, KBS Executive Dean and co-author of the study, notes that the increased likelihood of EV at-fault claims combined with higher repair costs and battery-related damages results in a greater financial burden compared to petrol and diesel vehicles. The study is based on telematic data from 125 million commercial fleet vehicle trips, involving 14,642 vehicles recorded in the Netherlands between January 2022 and October 2022. It also incorporates insurance claims data from the same period.

This research contributes to **SDG 9: Industry, innovation and infrastructure** and **SDG 11: Sustainable cities and communities** by providing data-driven insights that can inform policies on vehicle safety, insurance and infrastructure planning for sustainable transport systems.

Reflecting on the findings, Dr Sheehan states, "Our research highlights the need for targeted safety measures and risk awareness for EV drivers. As the transition to sustainable transport accelerates, understanding how driver behaviour and vehicle technology interact is crucial for improving road safety."

The study is co-authored by Lero and UL researchers Kevin McDonnell, Dr Barry Sheehan, and Professor Finbarr Murphy, along with Professor Montserrat Guillen of Universitat de Barcelona.

UL and Dogpatch Labs partner to offer students new startup placements

Dogpatch Labs, one of Ireland's leading startup hubs, formed a partnership with UL in 2024 to offer computer science students real-world entrepreneurial experience.

UL's Immersive Software Engineering (ISE) programme collaborated with Dogpatch Labs to enable students to work on their own business ideas or to join startups connected with Dogpatch's extensive network. These included initiatives such as the Founders Talent Accelerator, HBAN, and Ireland's national startup accelerator (NDRC), which operates across hubs including RDI Hub in Kerry, Republic of Work in Cork and Portershed in Galway.

Widely recognised as one of Europe's premier software engineering courses, the ISE programme places a strong emphasis on practical, hands-on learning. Designed in collaboration with industry leaders, the programme aims to nurture outstanding talent through a balance of academic study and full-time work placements, enabling students to refine their career paths, build industry networks and develop critical skills beyond the traditional classroom environment.

Guided by an Industry Advisory Board led by high-profile figures such as John Collison (President of Stripe), Des Traynor (Chief Strategy Officer at Intercom) and Bobby Healy (CEO of Manna Aero), ISE attracts over fifty industry partners. The addition of Dogpatch Labs provided students with a unique gateway into the entrepreneurial ecosystem. Through the partnership, UL students accessed exclusive talks from world-class founders; worked on real-life engineering projects with startups; and received the mentorship, resources and space to develop their own startup ventures.

According to Professor Stephen Kinsella, ISE Co-Director and Head of the Department of Economics at the KBS, "Immersive software engineering is about creating Europe's best software engineers. Some of them will work in the best companies. Some of them will create the best companies, and that is what our partnership with Dogpatch Labs aimed to support. We were excited to work with Dogpatch Labs and the Patch youth accelerator to help make these new companies a reality."

Patrick Walsh, CEO of Dogpatch Labs, also welcomed the collaboration: "We were thrilled to work with the University of Limerick and the ISE programme to open the world of startups to the next generation of software engineers. This partnership provided students with a rich, hands-on education in innovation and entrepreneurship."

The partnership not only integrated academic rigour with practical startup experience but also contributed to strengthening the 'flywheel effect' within the startup ecosystem by supporting future tech founders through initiatives like the Founders Talent Accelerator.

UL researcher to lead project on next-generation car camera systems

A UL researcher is to lead a new project developing prototype car cameras for enhanced road safety. The ambitious project is designed to help reduce road accidents by modelling advanced imaging systems for vehicles that are more responsive than the existing technology. The research is being led by Professor Patrick Denny of Lero, who is Associate Professor in Artificial Intelligence, Machine Learning and Imaging in the Department of Computer Science and Information Systems and an expert in automotive imaging. Lero is to collaborate with Arm, the global semiconductor and software leader, on the innovative project. Valued at €566,000, the project will explore new technologies to enable cars to see and react to their surroundings faster, more intelligently and more effectively.

A four-year collaboration between Lero and Arm, the ARMADAS1 project focuses on the development of next-generation car camera systems. The project will explore how artificial intelligence can be optimised to enhance how vehicles perceive their surroundings. Professor Denny explains: "As car camera systems become increasingly sophisticated and AI is deployed across the vehicle, this research aims to explore the potential of smarter, more responsive imaging systems optimised for computers rather than humans. The collaboration between Lero and Arm could revolutionise the way vehicles perceive their environments by optimising cameras and sensing systems for AI processing, enabling cars to sense and react faster to their environment."

According to Andy Rose, VP Technology Strategy and Fellow at Arm, "The automotive market is going through an unprecedented transformation and as part of this, we're seeing an explosion in the demand for AI across the vehicle. Bringing together Arm's technical expertise and market knowledge with Lero's internationally recognised software and computer imaging research capabilities, this project has the potential to drive exciting new developments for next-generation automotive vision systems."

The project will benefit drivers, the public and vulnerable road users. Its advancements have the potential to not only help make cars smarter but also empower chip manufacturers to develop innovative new products for this market.

Student-led Sustainability

UL Japanese section Invited to PwC (Dublin) for a Sustainability & Networking Event

On Wednesday 21 February 2024, fourth-year students Zoe, Oisín and Elisa, third-year student Ben and Dr Erika Marcet, Head of the Japanese section in the School of English, Irish, and Communication were invited to PwC (Dublin) for a business and networking seminar entitled 'Sustainability: A driver for business growth'. The seminar was organised by the Ireland Japan Chamber of Commerce and the Ireland Japan Association. Students had the opportunity to meet and exchange information with senior business leaders with connections to both Ireland and Japan.

Oisín thanks the organisers and UL for giving him so a wonderful opportunity. "I learned a lot about sustainability and I also got to meet and learn from industry leaders. This event also opened some doors to future job prospects."

Giving Voice

Sustainability is very important to preserve the healthy and green environment in this planet. The small actions, such as turning off the electronics or lights when they are not in use and recycling batteries, cans and water bottles in the right place, are invaluable to keep our house more sustainable, thus supporting UN sustainable development goals. On campus, the UL sustainability challenge encourages the students to be active in supporting that sustainability to achieve a better environment and lives.

Ibnu Taufan
PhD Student in Mechanical Engineering, UL



10 REDUCED INEQUALITIES

Reduce inequality within and among countries.

UL and MongoDB announce scholarship to promote equality, diversity and inclusion in software engineering

In January 2024, UL and software company MongoDB announced a new scholarship that will promote equality, diversity and inclusion in software engineering for students on UL's innovative Immersive Software Engineering (ISE) programme.

ISE is a transformational teaching and research initiative that aims to rethink and disrupt computer science education. Students learn by doing, working on projects and in paid residencies at some of ISE's more than 50 partner organisations. The students will earn a master's qualification in four years.

MongoDB has tens of thousands of customers in over 100 countries with its international headquarters in Dublin. The software company has a mission to empower innovators to create, transform and disrupt industries by unleashing the power of software and data. MongoDB's developer data platform is a database with an integrated set of related services that enable development teams to address the growing requirements for today's wide variety of modern applications, all in a unified and consistent user experience.

Funded by MongoDB, the scholarship of €10,000 will assist recipients with tuition fees, books and other educational expenses and will specifically support diversity within the ISE programme across each of the diversity characteristics set out in the Equal Status Act.

At the launch, speaking about the importance of the scholarship and the impact on diversity within software engineering, Professor Stephen Kinsella, ISE Co-Director and Head of the Department of Economics at the KBS, explained, "Immersive software engineering is about doing software engineering differently. That means many things, and core to the basic idea of ISE is needing different people, from different backgrounds, who think differently, to work and learn together in a shared space to help create the future. Promoting diversity and inclusion in software engineering and the ICT sector are key elements of both the MongoDB and ISE missions, with both groups strongly committed to ensuring careers and education within the sector are accessible to all. The scholarship also aligns with UL's overarching equality, diversity and inclusion strategy in that it promotes equality of access to higher education."

Also at the launch, Rita Rodrigues, Director of Developer Relations at MongoDB, said, "We are so proud to support and fund UL's new Immersive Software Engineering scholarship – a bold initiative promoting equality, diversity and inclusion in software engineering. At MongoDB, I have experienced firsthand the strength and innovation that comes from diverse perspectives. We don't just talk about diversity and inclusion; we live it every day. It's in our culture, our policies, and in the opportunities we provide. This partnership with UL underscores our dedication to building a technology industry that embraces diverse voices. As someone who has personally benefited from and contributed to our inclusive culture, I am thrilled to extend these values and opportunities to the next generation of innovators, empowering them to create groundbreaking solutions with software and data."

Fighting racism with education: UL research project launches tools to combat anti-Muslim hatred

A UL research project is using innovative educational training to support the fight against anti-Muslim hatred in Ireland. The Sustainable Alliances Against Anti-Muslim Hatred (SALAAM) project aims to combat anti-Muslim hatred by developing and disseminating tools, such as anti-racism training and a support directory, in conjunction with local authorities.

Funded by the European Commission and led by Dr James Carr, Associate Professor in Sociology at UL, SALAAM was developed in partnership with civil society organisations Doras, the Immigrant Council of Ireland and the Irish Network Against Racism. Underpinned by the EU Anti-Racism Action Plan (2020-2025) along with other key legislative and policy developments, SALAAM aims to complement the work of other EU-based civil society actors, working with local authorities and communities in Dublin, Cork, Limerick and Galway.

Among the collaborative resources developed is a directory of national and local anti-racism support services. Although the directory can be used by anyone affected, it was primarily developed to support local authority staff who require further information or referral supports for individuals or communities experiencing racism.

Following the launch of the SALAAM project in December 2024, Dr James Carr said, "I have always believed that it is crucial that we take learnings and

insights developed in academic research outside the academy, and into our work with strategic partners and the broader public domain. As an initiative designed to challenge anti-Muslim racism, a range of outputs were designed to do just that. Working with partner local authorities and civil society organisations and those directly impacted by this phenomenon, we designed anti-racism training resources that informed on how racism operates as a social process and, importantly, what people can do to combat racism and support those targeted."

Dr Carr and his team also rolled out the Know Your Rights campaign arm of the project, which seeks to educate communities and individuals about established policy measures to promote inclusion in Ireland – the Equal Status Acts 2000-2018, the Criminal Justice (Victims of Crime) Act 2017, and the Public Sector Equality and Human Rights Duty (Public Sector Duty).

Similarly, the Anti-Racism Training for Local Authority Staff in Ireland forms a key element of the SALAAM training resources. Informed by research involving multiple local authorities as well as experiences from Muslim communities in their service areas, this training was designed to raise awareness of established legislation and support mechanisms while also addressing the root causes and manifestations of racism. Importantly, SALAAM was rolled out in partnership with Muslim communities in each participating city, and this inclusive approach ensures the work is informed by the perspectives of those targeted with anti-Muslim hatred.

Some of these perspectives have been captured in striking artwork by illustrator Soufeina Hamed, a Berlin-based artist who creates comics related to the topics of identity, racism and Islamophobia. Soufeina brought these first-person accounts of anti-Muslim hatred to life in a series of powerful illustrations, which can now be viewed on display as part of the SALAAM project exhibition.

Advancing health equity for people with intellectual disabilities: The Rosemary Collaboratory Project

People with intellectual disabilities experience significant health disparities, including lower life expectancy, higher rates of chronic conditions and persistent barriers to healthcare access. The Rosemary Collaboratory Project – a global initiative led by Special Olympics International – aims to strengthen health systems to be more inclusive of people with intellectual disabilities. This pioneering project marks a concerted effort to transform health systems globally, making them more accessible, affordable and appropriate for people with intellectual disabilities. Following a competitive request for proposals, in 2024, eight countries and three US states were selected to conduct a thorough assessment of the inclusivity of their healthcare systems for people with intellectual disabilities. This first phase provides a foundation for future phases in which healthcare system improvement initiatives will be enacted.

In Ireland, the project's phase 1 assessment, led by Associate Professor Seán Healy (PA*f*H Research Centre and PESS), brought together a coalition of national researchers, including Professor Owen Doody and Jeanne O'Sullivan (UL), Professor Anthony Staines (DCU), Professor Éilish Burke (TCD), Professor Mary Rose Sweeney (RSCI), and Dr Hayley Kavanagh and Dr Kathy Fulcher (Special Olympics Ireland). The research team's efforts were supported by a Partner Advisory Board comprising representatives from Ireland's HSE, National Disability Authority, and Special Olympic Ireland's Health Messenger team.

Through a system-level assessment, the research team examined key structural, service delivery and outcome-based factors that shape healthcare experiences for people with intellectual disabilities. The work identified systemic barriers, including fragmented policies, insufficient data collection and gaps in healthcare professional training. Stakeholder engagement, particularly through 'Our Health, Our Voices' – a participatory event involving individuals with intellectual disabilities and their families – reinforced the need for policy-driven solutions and inclusive healthcare practices.

According to Associate Professor Healy, "As researchers, we strive to positively impact our communities and society through our work. Joining the Rosemary Collaboratory, our team of experienced academics and stakeholders are in a prime position to significantly advance inclusive healthcare in Ireland."

The project's recommendations include

- improving the monitoring of healthcare accessibility, including infrastructure and service delivery
- ensuring clear, standardised and accessible health information through national platforms
- enhancing training specific to intellectual and developmental disabilities for healthcare professionals to improve patient interactions and outcomes

UL's commitment to sustainability and **SDG 10: Reduced inequalities** is reflected in the Rosemary Collaboratory, which advocates for evidence-based policy change and inclusive health system reform. As Phase 2 of the project commences, Associate Professor Healy and Professor Owen Doody will lead efforts to implement and evaluate targeted system improvements, thereby further advancing equitable healthcare access for people with intellectual disabilities in Ireland.



Project team members and collaborators launch Ireland's Rosemary Collaboratory Project at UL.

Language tasters as part of the Limerick Lifelong Learning Festival 2024

In April 2024, the School of Modern Languages and Applied Linguistics took part in the Limerick Lifelong Learning Festival 2024. Entitled 'Explore and Learn a New Language in 2024', a series of language taster sessions was offered to the general public. Anyone interested in learning a new language and discovering a new culture was invited to join online sessions to get a general introduction to a language and its culture(s).

All through the week, participants could attend sessions in Arabic, Chinese, French, German, Italian, Japanese and Spanish. The event was very successful – close to a 100 people registered to take part, some of whom signed up for more than one language. Kudos to the fantastic work of the Language Outreach Programme tutors who delivered the sessions.

European Day of Languages: Celebrating the linguistic and cultural diversity of the UL campus community

The European Day of Languages on 26 September annually has promoted linguistic and cultural diversity throughout Europe over the past 20 years. Always a special day at UL, the event provides members of the campus community with opportunities to enjoy the many vibrant languages and cultures to be found on campus.

With the overall aim of promoting greater intercultural communication and understanding and highlighting the vital role of languages in this process, the European Day of Languages 2024 was celebrated over two days at UL through a series of exciting events, including collaboration with Aonad na Gaeilge for the traditional Irish language coffee morning for UL staff and a pizza lunch for UL students with the help of An Cumann Gaelach, the Irish student society.

The Japanese section of the School of English, Irish, and Communication delivered a fun and engaging Japan trivia quiz with students and speakers of Japanese and Japan enthusiasts, including Language Centre students. The School of Modern Languages and Applied Linguistics teamed up with UL Global and organised several events where UL and international students could meet and connect.

Students attended the Language Exchange meeting on Wednesday evening, 25 September to find language partners. With over 150 students in attendance and many nationalities and languages represented, the meeting once again proved to be a resounding success. This was followed on Thursday by an international coffee meet-up in the newly open The Globe, which was attended by students from around the world. Both events provided the opportunity for linguistic and cultural exchanges in an informal atmosphere.

Also on the Thursday, the Globe hosted multilingual literary readings on the theme of language and peace. Featuring students from different countries, this event highlighted the literature, poetry and singing of the represented countries, with each performer introducing the author and explaining their choice. Students spoke knowledgeably and passionately about their performance piece, highlighting its significance to their lives.

A visit to the Irish World Music Café and a talk by Monica Brandis at the Centre for Irish-German Studies highlighted the importance of language as a bond between people in every aspect of life.

Aligning with **SDG 10: Reduced inequality** and **SDG 4: Quality education**, the events were organised by School of Modern Languages and Applied Linguistics members Dr Marie-Thérèse Batardière, Dr Veronica O'Regan and Dr Erika Marcet and Language Learning team members Catherine Jeanneau, Rachel O'Loughlin and Erasmus+ interns Elsa, Nelly and Tizian.

Symposium on ageing and gender in contemporary European literatures and film

A vibrant in-person symposium entitled 'Ageing and Gender in Contemporary European Literatures and Film' took place on 27 June 2024 at UL. Organised by Associate Professor Dr Michaela Schrage-Früh (School of Modern Languages and Applied Linguistics and Centre for European Studies), the focus of the day was on comparative approaches to representations of ageing and gender across European cultures.

The programme kicked off with a keynote address entitled 'Female Ageing through European Eyes: The Older Woman in Deborah Moggach's and Maria Barbal's Fiction', which was delivered by a visiting researcher from Spain, Dr Maricel Oró-Piqueras (Universitat de Lleida). During the course of the day, delegates from UL, MIC, University of Maynooth, University of Galway and ENS de Lyon presented and discussed papers on a broad variety of topics:

- Jean Conacher (UL), Coming of age in the love triangle: Roger Michell's 'The Mother' (2003) and Andreas Dresen's 'Wolke 9' (2008)
- Johannes Vith (UL), Lunar Ageing: Reversed Temporalities in Andrzej Żuławski's 'On the Silver Globe' (1988) and Duncan Jones's 'Moon' (2009)
- Susan Liddy (MIC), 'The less said …': Negotiating Ageing and Careers in the Screen Industries
- Maggie O'Neill (University of Galway), Kate O'Brien, Writing and Gendered Ageing
- Sorcha de Brún (UL), Women's Work: Masculine Cultural Dominance, Age and Gender in Peig: A Scéal Féin (1998)
- Anita Barmettler (UL), Disruptive Old Women in the Swiss Film 'Late Bloomers'
- Gabrielle Fath (ENS de Lyon), Writing against the Cult of Youth in the Modern West: The gendered and socio-economic implications of ageing as portrayed in Muriel Spark's 'Memento Mori' and Michel Houellebecq's 'La possibilité d'une île'
- Eva Auré (UL), Revealing Silence Around Women's Ageing in Jackie Kay's 'These are not my Clothes' and Marie-Sabine Roger's 'On n'a pas tous les jours cent ans …'
- Michaela Schrage-Früh (UL), Ageing and the Posthuman in Recent Irish and German Novels
- Deirdre Flynn (MIC), Oona Frawley's 'Flight' (2014) and Jenny Erpenbeck's 'Go Went Gone' (2015): Hospitality and Ageing Masculinity in Migration Narratives
- Linda Shortt (University of Maynooth), Hermann Kinder's 'Mein Melaten' and the Art of Living to Death

The day provided an excellent opportunity to exchange ideas and insights on nuanced representations of gendered ageing across cultural boundaries, disciplines, media and genres. In view of what has been called "the greying of Europe", the theme of ageing is of central interest to European cultural studies, and it was stimulating to observe similarities and differences across a variety of cultural representations. We hope that there will be future opportunities for collaboration, especially with our guest and keynote speaker Dr Oró-Piqueras, who currently chairs the European Network in Ageing Studies.



Attendees at the Ageing and Gender in Contemporary European Literatures and Film Symposium

Singing data: Arts project bridges cultures and data literacy

The ADD (Arts, Data Literacy and Diversity) Project is funded through the IRC Collaborative Alliances for Societal Challenges (COALESCE) programme. Led by co-PIs Professor Helen Phelan (Irish World Academy) and Professor Ailish Hannigan (School of Medicine), the project examines the potential of the arts to enhance data literacy.

The UN has highlighted a growing risk of inequality for people excluded from the new world of data by language, poverty, lack of education and discrimination. Through an intercultural song exchange and data literacy programme, this research explores the impact of an arts intervention on meaningful engagement with data. In 2024, ADD embarked on a 12-week community-based intercultural song and data literacy programme, which culminated in a live performance in the Belltable Theatre in Limerick city on World Day for Cultural Diversity on Tuesday, 21 May.

Global Accessibility Awareness Day 2024

In preparation for Global Accessibility Awareness Day (GAAD) 2024 – Thursday, 16 May – UL hosted a week-long series of accessibility-focused events. The activities aimed to raise awareness, promote inclusive practices, provide training and celebrate the progress made at UL in relation to accessibility. The week featured a webinar with a national and international accessibility expert, the publication of articles on accessibility and advocacy, access to web accessibility training, and personal stories from staff and students about their journeys into the world of accessibility.

Recognising that accessibility is everybody's responsibility, the events were developed collaboratively by multiple departments, including Student Life; Marketing and Communications; Educational Assistive Technology Centre; Centre for Transformative Learning; Library Services; learning technologists; Disability Services; Buildings and Estates; ITD staff; Human Rights, Equality, Diversity and Inclusion (HREDI); and UL students.

With a wide range of activities available, UL encouraged participation by inviting staff and students to register for events and engage with the various initiatives throughout the week. The goal was to foster a deeper understanding of accessibility across the campus community and make GAAD 2024 the best yet.

UL embraces age-friendly future with new initiative

UL took a significant step towards fostering an age-inclusive campus when it officially joined the Age-Friendly University Global Network (AFUGN) on 6 December 2024. Spearheaded by the HREDI Office, the initiative aims to create a more welcoming and inclusive environment for older adults and promote lifelong learning and community engagement.

At the forefront of this initiative is Professor Rose Galvin, Associate Professor in Physiotherapy in the School of Allied Health and founding member and co-chair of the UL Age-Friendly University Committee, which was established 2022. A renowned expert in physiotherapy and ageing research, Professor Galvin brings a wealth of expertise and passion to promoting healthy ageing and has been instrumental in shaping UL's commitment to age inclusivity. Her dedication to improving the health and wellbeing of older adults aligns perfectly with the AFUGN's mission and **SDG 3: Good health and well-being**. Her leadership is essential in ensuring that UL's Age Friendly University initiative is implemented effectively and has a lasting impact on the lives of older adults.

The launch event, which featured prominent speakers including Regius Professor Rose Anne Kenny and Alix McDonald, highlighted the importance of creating age-friendly environments in higher education. By embracing the principles of the AFUGN, UL is not only expanding educational opportunities for older adults but also contributing to a more inclusive and equitable society.

This initiative is a testament to UL's commitment to its strategic goal of promoting good health and wellbeing across the lifespan. By fostering a culture of respect and inclusivity, UL is empowering older adults to lead fulfilling and active lives.

International Men's Day 2024

The Department of Nursing and Midwifery celebrating International Men's Day on 19 November 2024. Facilitated by the HREDI Office, the theme of the day was 'Positive Male Role Models'. Maurice Lynch, who graduated from the department with a Bachelor of Science in Nursing (General) in 2020 and a Master of Science in Nursing in 2023, spoke about his experiences as a male in the healthcare profession.

Maurice currently works as a staff nurse on a surgical ward in University Hospital Limerick. He has an avid interest in person-centred care, therapeutic relationships and evidence-based practice in nursing. He firmly believes that nurses have the potential to make a significant positive impact on the lives of those they look after.

Entitled 'What boys need from their dads', the keynote presentation was delivered by Dr David Coleman. Dr Coleman spoke about how dads can physically, psychologically and emotionally engage with their sons to model healthy male behaviours and guide them into the future. Dr Coleman is a practising clinical psychologist and Adjunct Associate Professor in the School of Psychology in UCD. He specialises in working with children, teenagers and their families. He is probably best known for the range of television programmes he has presented on childhood struggles, teenage angst and other aspects of family life.



In attendance at International Men's Day 2024 at UL on 19 November were Dr Sylvia Murphy, Mr Maurice Lynch, Dr Jill Murphy, Dr Steven Byrne and Dr David Coleman

Advancing Inclusion in physical education and sport

PESS postdoctoral researcher Dr Marina Castro-García represented UL at the VI Conference on LGTBIQ+, Physical Education and Sport in November in Barcelona. Entitled 'Deportigualízate: Towards Critical Feminist Pedagogies in Physical Education', Dr Castro-García's presentation explored how critical feminist approaches can reimagine physical education to foster more inclusive and democratic spaces.

Following a warm welcome from the conference organisers, Dr Bart Bloem Herraiz (Universitat de Vic – Universitat Central de Catalunya) offered valuable insights into the experiences of transgender individuals in outdoor and adventure sports. Later in the day, researchers from Leeds Beckett University (Dr Scarlett Drury, Dr Hayley Fitzgerald and Dr Annette Stride) delivered thought-provoking sessions on belonging and inclusion in sports organisations.

The event showcased the strength of international collaboration and the dedicated work of the Research Network on LGTBIQ+, Physical Education and Sport, which is led by INEFC (Institut Nacional d'Educació Física de Catalunya). The network includes members from seven Spanish universities: INEFC, University of Valencia, University of the Basque Country, University of Seville, University of Córdoba, University of Valladolid and Rey Juan Carlos University. International participants include scholars from UL, Monash University, Bournemouth University, German Sport University Cologne, University of East London and Queensland University.

Student-led Sustainability

Championing inclusion: A dialogue with Aongus Hegarty

On Wednesday, 14 February, UL Student Sustainability welcomed Aongus Hegarty as part of its Conversation Series on SDG 10: Reduced inequalities. Moderated by Ben Fitzgerald Kiely, the conversation delved into Aongus's extensive experience of developing and implementing practices to reduce inequalities in the workplace and offered valuable insights and advice on addressing these challenges.

Having held influential positions across Dell's global landscape, including President, Vice President and General Manager, Aongus Hegarty has accumulated over three decades' worth of expertise in the technology sector. Widely recognised as an expert commentator on innovation, leadership, digital transformation and sustainability, Aongus is a passionate advocate for fostering diverse and inclusive work environments.

UL PhD student and moderator Ben Fitzgerald Kiely has a wealth of experience in strategy and sustainable scaling research. A company director with Totalcare.ie and a recipient of the UL Clubs and Societies Mike Sadlier Award for Outstanding Society Individual, Ben is dedicated to driving innovation and enterprise in his community.

The UL Student Sustainability Conversation Series invites exceptional individuals like Aongus Hegarty to share their insights and experiences to showcase real-life examples of advancing economic, environmental and social sustainability. These conversations inspire and challenge perceptions around effective sustainable development, thereby empowering students to become catalysts for positive change in the world.

Giving Voice

Sustainability is at the heart of every project that I work on in my role as a community engagement facilitator. All the projects support at least one sustainable development goal and have a particular focus on reducing inequalities. Our unit's goal is to create and support meaningful, impactful and reciprocal community/university partnerships so that we can work with our community partners to identify and address their needs in a sustainable way.

Niamh O'Sullivan
Community Engagement Facilitator, UL Engage



11 SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable.

UL researchers engage with Limerick Active Travel to explore cycling potential

UL researchers are engaging with Limerick City and County Council's Active Travel team to conduct detailed analysis into the potential of cycling across the city. Entitled 'The Drive for More Cycling in Limerick', the project will involve completing a number of projects aimed at understanding perceptions of cycling infrastructure within Limerick specifically. Bike parking innovations and the feasibility of sustainable logistics facilities in the city will also be explored throughout the duration of the research.

Limerick City and County Council is one of just two local authorities in the country to receive approval from the National Transport Authority (NTA) to fund research specific to the local area. The findings from the research will be shared and discussed with the Active Travel team regularly, which will help to form the basis of proposals to continue to enhance and upgrade Limerick's cycling infrastructure.

Sean McGlynn, Senior Engineer with the Limerick City and County Council Active Travel team, looks forward to the collaboration with UL: "We are very excited about the beginning of this new partnership with our colleagues in UL. As we continue to expand the rollout of high-quality Active Travel schemes across Limerick, we want to ensure we have the most up-to-date data and information to do it as well as we can. Understanding public perceptions of cycling in the city is particularly significant for us as we want to continue to bring people with us on the journey to upgrade our infrastructure. Having analysis of local views and trends will be invaluable to our engineers and technicians going forward as they continue to formulate proposals for the city."

The collaboration with UL follows the beginning of air quality monitoring and the installation of radar traffic counters from the Active Travel team in 2023. The research will be led by Dr Ross Higgins, a lecturer in civil engineering at the School of Engineering. Dr Higgins explains: "Work on the project has already begun and UL has hired a full-time research assistant as a result of the funding provided through the Active Travel team. We will be assessing the barriers to decarbonising our transport infrastructure in Limerick and how to address that throughout our research. We will also be looking at evaluating existing cycle parking around the city as well as how the possibility of 'micro consolidation hubs' – effectively neighbourhood-scale storage and distribution hubs for last-mile deliveries – may work in Limerick. We look forward to working hand in hand with the Active Travel team going forward, during what's a really important stage in encouraging a modal shift, as per local and national transport policy."

The research will be conducted over 24 months, after which findings will be collated.

Bridging public perceptions and policy for sustainable cycling infrastructure

Like many urban areas, Limerick city faces the challenge of promoting cycling as a sustainable mode of transport. Public opposition, often rooted in concerns about parking, safety and accessibility, has been a significant barrier to raising the levels of cycling in the city. This study explores these perspectives with a view to informing more inclusive, effective cycling infrastructure policies.

A comprehensive analysis of 322 public consultation submissions for the South Circular Road Active Travel Scheme in Limerick revealed that 65% of submissions indicated support for the project. Key themes included enhanced safety, environmental benefits and the critical need for dedicated infrastructure. Insights from opposition-related submissions highlighted the importance of addressing parking concerns and access for elderly residents. The project emphasises community engagement and provides an evidence-based foundation for future cycling initiatives.

The research was conducted by Muhammad Huzaifa Butt under the supervision of Dr Ross Higgins, both of the School of Engineering and members of the Physical Activity for Health (PAfH) research hub. The project received support from the Limerick City and County Council and the National Transport Authority as part of the Active Travel Investment Programme. The initiative directly aligns with **SDG 3: Good health and well-being**, **SDG 11: Sustainable cities and communities** and **SDG 13: Climate action** and indirectly with **SDG 5: Gender equality** and **SDG 10: Reduced inequalities**.

According to PI Dr Higgins, "This research has already had an impact on the design of active travel schemes by informing designers of all stakeholders' needs. The research illustrates a project designed by the people, for the people." Research assistant Muhammad Huzaifa Butt concurs: "The examination of these submissions highlighted how public engagement can uncover valuable, often overlooked insights. The community's feedback offered a roadmap for designing more inclusive cycling infrastructure."

Three UL award-winning projects to benefit Limerick communities

Three innovative research projects led by UL researchers were awarded €10,000 each to develop solutions that will directly benefit communities in Limerick. The selected projects focus on food poverty, sustainable energy generation and accessible voting.

The three projects were chosen by the UL Citizens' Assembly, a public forum organised by UL Engage during UL Research Week. Held at Gardens International in Limerick city centre, the Assembly brought together over 100 Limerick citizens, aged 14 to 82, to democratically decide which projects should receive funding. The initiative ensures that research at UL is guided by real community needs while addressing key UN SDGs.

Nine research teams pitched their projects at the Assembly, demonstrating their potential to enhance civic engagement and improve quality of life in Limerick. The three selected projects, described below, tackle pressing challenges in sustainability, accessibility and energy generation.

1. The Food Finder: Mapping Limerick's Food Environment

This project aims to identify and address food poverty by mapping Limerick's food system. It will highlight key locations such as supermarkets, small grocers, food banks and community cafés to assess disparities in food accessibility. The research will help identify transport and socio-economic barriers affecting low-income communities and will provide insights for policy interventions.

- UL lead: Associate Professor Anne Griffin, School of Allied Health
- Partners: Limerick Food Partnership
- SDGs addressed: **SDG 1: No poverty**, **SDG 2: Zero hunger**

2. Sustainable Energy Generation through Citizen Movement

This project will develop a piezoelectric (PZT) energy-harvesting tile prototype, which captures energy from pedestrian movement to generate electricity. By integrating LED lighting, the project aims to create an engaging and sustainable urban feature. The initiative will involve local communities, including schoolchildren, older adults and vulnerable populations, in an exploration of practical applications for clean energy solutions.

- UL Lead: Associate Professor Sarah Guerin, Department of Physics
- Partners: Limerick City and County Council
- SDGs addressed: **SDG 3: Good health & well-being**, **SDG 7: Affordable & clean energy**

3. Which Candidate? Community Collaborations for Accessible Voting

This project focuses on making the voting process more accessible and user-friendly. By developing clear, unbiased resources, the initiative seeks to empower citizens with the knowledge needed to make informed electoral decisions. The research will engage a broad range of stakeholders to ensure equitable access to democratic participation.

- UL lead and partners: Details to be confirmed
- SDGs addressed: **SDG 10: Reduced inequalities**, **SDG 16: Peace, justice and strong institutions**

According to UL Vice President for Global and Community Engagement Professor Nigel Healey, "University of Limerick is committed to community engagement, ensuring that our research has a real-world impact. The UL Citizens' Assembly gives the public a voice in shaping research priorities, reinforcing our role as a university for the people." Professor Maura Adshead, Head of Community Engagement at UL, further emphasised the significance of public participation: "By involving the

community in selecting research projects, we ensure that our work is meaningful and sustainable. This initiative demonstrates the power of collaboration in addressing societal challenges."

Through this participatory model, UL is not only advancing research but also fostering stronger community connections and promoting sustainable solutions for Limerick's future.



Citizens' Assembly, a public forum organised by UL Engage during UL Research Week

UL academic among select group of experts appointed to government's new Placenames Committee

Dr Aengus Ó Fionnagáin, Head of Irish Language Studies at UL, was named among 11 experts appointed to the government's new Placenames Committee. The committee was established under the Official Languages Act to advise on the Irish version of placenames in Ireland. The announcement was made by Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media Catherine Martin and Minister of State Thomas Byrne.

The Placenames Committee's primary responsibility was to examine research from the department's placenames branch and provide advice on the declaration of Irish versions of placenames. A leading expert in Irish placenames, Dr Ó Fionnagáin shared his experience to ensure the Irish versions were consistent with modern Irish spelling standards.

Having been fascinated by placenames since childhood, the appointment was a personal milestone for Dr Ó Fionnagáin. He was always intrigued by the townlands announced by the priest at mass; this inspired his undergraduate research project on local placenames and, later, his PhD study of townland names in Co. Westmeath. His academic work, which involved tracing the development of placenames over time, has shaped his decades-long career in education and research.

Dr Ó Fionnagáin has contributed to significant projects such as Logainm.ie, an official placename database, and the OS200 project, which made historic Ordnance Survey maps freely accessible. He believes that the work of the committee, alongside the Official Languages Act, will play a crucial role in ensuring the continued vitality of the Irish language.

Dr Ó Fionnagáin's appointment marks a key moment in his career, and he looks forward to contributing to the committee's efforts while learning from the other experts involved.

Mapping Ireland: UL researchers create new Ordnance Survey digital heritage resource

UL researchers created a new digital heritage resource on the early years of the Ordnance Survey (OS) in Ireland. The 'OS200: Digitally Re-Mapping Ireland's Ordnance Survey Heritage' project marked the bicentenary of the first Ordnance Survey of Ireland, which took place between 1824 and 1842. That survey was the first largescale mapping of an entire country, and it produced highly accurate maps that were considered to be some of the finest ever made by cartographers.

The project involved gathering historic OS maps, texts, memoirs, correspondence, drawings and books of placenames from various archives across Ireland and Britain. Originally scattered across museums and repositories, these materials were brought together to form a freely accessible digital archive for both academics and the public.

UL collaborated with Queen's University Belfast, the Digital Repository of Ireland and other partners in this IRC and Arts and Humanities Research Council co-funded project. The archive was launched at the Royal Irish Academy in Dublin. Dr Catherine Porter from the School of History and Geography at UL led the team, highlighting the challenges of accessing and collating the large volume of materials in varied conditions and locations. The project saw for the creation of a comprehensive OS archive, thereby enabling researchers to look deeper into the first survey of Ireland in the early nineteenth century.

The digital archive aims to make OS materials accessible to wider audiences and so offer a greater understanding of the OS operations and their legacy in Ireland. The archive also makes it easier to explore the complex colonial histories associated with the survey and its impact on the Irish landscape today.

The project has uncovered hidden aspects of the OS's work and its employees, which contributes to our understanding of pre-famine Irish history. Dr Porter emphasised that the archive not only focuses on cartography but also includes written and pictorial accounts of Ireland's colonial past. By showcasing how disparate sources can be brought together for research and public engagement, this digital resource serves as a model for innovation in the digital humanities.

Givebackathon

Immersive Software Engineering (ISE) students took a lead in outreach efforts by organising a Givebackathon in May. The students reached out to charities and helped them solve technical challenges the charities typically encounter in their endeavours. One team comprising Jean Carson, Conor Browne and Andrew Jeffrey looked for a better system for St. Vincent de Paul (SVP) to use for their second-hand clothes inventory. The proposed solution was to add QR codes to the printed tags and to use an app with a shared database. As clothes are donated and tagged, they are scanned, and all information is inputted. As the clothes come into the shop, they can be moved to the shop's database by simply scanning them in (currently each shop maintains its own running spreadsheet of inventory, which must be manually updated). Prices can also be calculated by scanning instead of hand tallying.

The goal was to modernise SVP's system with minimal overhead costs in relation to new tills, point of sale software and training. The ISE students analysed the current problem and identified the steps needed to implement a practical solution, which was then presented to the charity.

Another team including Tóla Bowen MacCurtáin collaborated with Limerick Treaty Suicide Prevention, a local Limerick charity whose work is held in high esteem by the students. The team's most pressing challenge was that the organisation did not have a dedicated website. The team immediately got to work to create a suitable website – one that included links to Limerick Treaty Suicide Prevention's social media channels, directions to its donation pages, and a platform to share its vital work. The new website bolstered the organisation's online presence and enabled it to more effectively update its supporters on the fantastic work it does.

These two initiatives are great examples of how students can use their technical skills to help charities while gaining great experience of working with a real-life problem. According to Tóla Bowen MacCurtáin, "Participating in the inaugural ISE Givebackathon was a deeply rewarding and insightful experience. It was incredible to have been given the opportunity to use our skills collaboratively for the greater good and to contribute to a meaningful cause in our community here in Limerick."

Student-led Sustainability

Empowering communities: AccessCampus presentation with GLSD

The Global Leadership for Sustainable Development (GLSD) programme places a strong emphasis on the role of society in sustainable development. As part of Society Week, students had the opportunity to engage with UL AccessCampus, which celebrated 20 years of community outreach in 2024. Coordinator Dónal O'Leary shared insights into the impactful work of AccessCampus in challenging educational disadvantage and fostering community empowerment.

On 12 March 2024, AccessCampus representatives visited UL to give a presentation on the initiative's two-decade journey of community outreach. Dónal O'Leary elaborated on the core mission of AccessCampus, which originated from a partnership with Limerick Enterprise Development Partnership to address educational disadvantage in socially and economically deprived areas of Limerick.

Since its inception, AccessCampus has served as a beacon of hope for thousands of Limerick families, offering a wide range of educational opportunities for learners of all ages. Dónal highlighted the diverse user groups and collaborations that have contributed to the success of AccessCampus while emphasising its role as a bridge between education and the community.

The collaboration between AccessCampus and GLSD underscores the importance of community empowerment in sustainable development. Through initiatives like Society Week, students gain valuable insights into the transformative power of education and community engagement. As future leaders, they are inspired to leverage their skills and knowledge to drive positive change in society.

EcoBuilders workshop inspires young minds at UL's Science Week

On 13 November, as part of UL's annual Science Week, the Centre for Sustainable Futures and Innovation hosted the EcoBuilders workshop. The interactive workshop welcomed students aged 9 to 12 years from Newport Convent Primary School and Knockadea National School, encouraging them to rethink and redesign their schools with sustainability in mind.

Through hands-on activities and group discussions, students explored key sustainability themes, including renewable energy, green spaces and eco-friendly transportation. By working together, they envisioned how schools could become hubs for sustainable communities, inspiring change in towns and cities.

The EcoBuilders workshop addresses the growing need for sustainability in education. By actively involving students in the design process, the workshop empowers them to think critically and develop practical solutions that could shape their schools and wider communities. The workshop aligned with **SDG 4: Quality education**, **SDG 7: Affordable and clean energy**, **SDG 11: Sustainable cities and communities**, and **SDG 13: Climate action**.

A special thank you to Mary Ferry from the Faculty of Science and Engineering for inviting the Centre for Sustainable Futures and Innovation to host this workshop. Gratitude also to Leianna Padgett, Una McInerney and Vicky Kelly for volunteering and to Elisa Minoue for facilitating the session. And, of course, a big thank you to the students who participated –your enthusiasm, creativity and willingness to learn were truly inspiring!

Student-led Sustainability

Empowering youth: Co-creating sustainable solutions

On 7 March 2024, Student Sustainability Coordinator Jack O'Connor welcomed students from Desmond College to UL for a workshop on sustainability. Collaborating with UL's Access Office, Jack aimed to empower the participants to shape a more sustainable future for their school.

Drawing on his own experiences as a former student of Desmond College, Jack shared insights on the importance of youth engagement in sustainability efforts. He highlighted how the perspectives and ideas of young people are vital in driving meaningful change within their communities.

During the workshop, students participated in a sustainability project design session, where they brainstormed ideas to make their school more sustainable. By involving students in this co-creation process, the aim of the workshop was to give participants a sense of ownership and empowerment. This collaborative approach ensures that sustainability initiatives are grounded in the specific needs and realities of the school community. By engaging young minds in the process of developing solutions, the workshop encouraged creativity and innovation in addressing sustainability challenges.

The Centre for Sustainable Futures and Innovation is responsible for providing sustainability training to the campus community through the Mission Lab. The Mission Lab is integral to advancing UL's novel approach of 'mission-driven learning', where traditional sustainability training is elevated through project-based learning experiences. This model bridges the gap between theoretical knowledge and practical application, offering students and staff the opportunity to engage with the latest developments and practices in the field.

Mission Lab acts as a platform for experiential learning and up-skilling for those who engage with its portfolio of sustainability missions. Importantly, the breadth of UL's Sustainability Framework creates an opportunity for the UL community to go beyond siloed disciplines and reap the benefits of cross-domain learning. Knowledge transfer and cross-institutional learning play an essential role in sustainability training.

Giving Voice

Sustainability is becoming increasingly critical every year. The greatest impact we can have is in identifying actions that make our lives and communities more sustainable, not just at the corporate level but also through individual responsibility. Every choice we make matters no matter the size or the complexity, and together, both individuals and organisations can deliver meaningful change.

Karl Gilmartin
MSc Immersive Software Engineering,
Faculty of Science and Engineering



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns.

UL researchers develop new method of generating eco-friendly energy

UL researchers developed a new method of growing organic crystals that can be used for energy-harvesting applications. The energy that is harvested as part of this research is generated by squeezing amino acid molecules – the building blocks of proteins that exist in the human body. Piezoelectricity, which translates from the Greek for 'pressing electricity' and usually found in ceramics or polymers, is also present in human biomolecules.

The research team from the Actuate Lab in the Department of Chemical Sciences and Bernal Institute has previously utilised predictive computer models that enable the amount of electricity a biological material will generate when you squeeze it to be identified. This latest breakthrough, which is published in the *Physical Review Letters* journal, will enable the researchers to shape the crystals they make using silicon moulds into discs or any custom shape required depending on the application – a medical device element versus a phone microphone or car sensor, for example. Tapping these discs and plates generates useful voltage that, if amplified, could be used to charge electronic devices using everyday forces.

Discussing the significance of the development, lead author of the paper and PhD student at UL Krishna Hari explained, "The versatile moulding technique that we have developed is a low-cost, low-temperature growth method that opens the path to phase in biomolecular piezoelectrics as high-performance, eco-friendly alternatives to currently used ceramics."

Entitled 'Piezoelectric Biomolecules for Lead-Free, Reliable, Eco-Friendly Electronics', the research project is being funded by an ERC starting grant awarded to Associate Professor Sarah Guerin, PI with the Actuate Lab. The UL lecturer and researcher, who was named Research Ireland (SFI) Early Career Researcher of the Year in 2023, said she was optimistic about what this latest development could mean for solid-state chemistry. "We hope it will be a gamechanger for the whole field because there are many scientists trying to grow biological crystals that are still behaving in a chaotic way. I am excited to see if this takes off as a methodology for other people working in sustainable piezoelectrics," explained Associate Professor Guerin.

If successful, the research undertaken by the team at UL has the potential to remove environmentally damaging materials such as lead from consumer electronics. According to Associate Professor Guerin, "There are EU regulations around the use of lead, but piezoelectrics are one of the last remaining mainstream technologies allowed to contain this substance because there is no high-performance alternative. There are about 4,000 tons of lead-based electronic waste generated from these sensors every year, and this research has the potential to remove this waste from the manufacturing process."

UL study reveals eco-friendly way to generate power from waste wood

A NXTGENWOOD study has found a sustainable method of efficiently converting waste heat into electricity by using Irish wood products while minimising costs and environmental impact. Led by researchers at UL in collaboration with colleagues at the University of Valencia, the groundbreaking study has demonstrated a method of generating electricity using low-grade heat recovered from lignin-derived membranes.

Typically overlooked, lignin is a sustainable byproduct derived from wood in paper and pulp production. The study shows that these membranes can convert waste heat into electricity by utilising the movement of charged atoms (ions) within the material. This is a significant advancement as previous studies had only demonstrated this technology using cellulose from natural wood, and the new UL research has successfully applied it to lignin from waste wood, thereby contributing to a more circular and sustainable economy.

Low-grade heat refers to waste heat generated at temperatures below 200 degrees Celsius. In industrial processes, 66% of the waste heat falls into this category, which highlights the potential of this breakthrough for developing sustainable heat-to-electricity applications.

Funded by the Department of Agriculture, Food and the Marine, the NXTGENWOOD study was published in the Advanced Functional Materials journal. Professor Maurice N. Collins, Professor of Materials Science in UL's School of Engineering and PI at the Bernal Institute, who supervised the study, explains, "Low-grade heat comes from various sources like waste heat in industries, heat losses in insulating systems, ocean thermal gradients, biomass fermentation and solar heat. Despite its potential, utilising low-grade thermal energy in energy harvesting applications has been challenging due to the lack of cost-effective

technologies. Our research explores the use of ionic thermoelectric membranes made from lignin, an underutilised by-product in the paper and pulp industry, offering a sustainable solution."

On the environmental potential of the research taking place at UL, Professor Collins added, "While there is still room for further development in heat-to-electricity conversion applications, the study demonstrates that abundantly available lignin can successfully contribute to low-grade thermal energy harvesting, especially in scenarios where sustainability and cost-effectiveness are crucial." Lead author Muhammad Muddasar, a NXTGENWOOD PhD student based at the Bernal Institute, elaborates, "We have developed the first lignin-based membrane for ionic thermoelectric energy harvesting. Our membrane is lightweight, easy to synthesise, and biocompatible, making it suitable for various applications, including thermal energy harvesting, temperature sensing, and biomedical sensors for health monitoring."

The UL researchers' work on the NXTGENWOOD project comes under the umbrella of the SFI-funded Centre for Advanced Materials and BioEngineering Research (AMBER). The project is dedicated to developing new value-added applications from Irish wood.

UL researchers pioneer a robotic solution for floating wind farm maintenance

UL researchers developed a pioneering robotic solution for inspecting floating offshore wind farms. The researchers' remotely operated vehicle (ROV) was successfully tested at WindFloat Atlantic, the world's first semi-submersible floating wind farm, off the coast of Portugal. The testing provided useful information for addressing the challenges associated with maintaining floating wind farm structures.

The intervention, repair and maintenance survey was conducted by the Centre for Robotics and Intelligent Systems (CRIS) at UL. Offshore wind farms, whether bottom-fixed or floating, require regular inspections and maintenance, which currently depend heavily on human intervention. However, as the industry expands, there is a growing emphasis on enhancing the reliability of operations while reducing costs. The research team used a combination of field robots, subsea ROVs and unmanned aerial vehicles to carry out the inspection of WindFloat Atlantic.

The test provided UL researchers with the unique opportunity to perform maintenance tasks on a fully operational floating wind farm in real-world conditions. The survey resulted in high-resolution, geo-referenced 3D models of the structures, both above and below the waterline. These findings will be made available through open-access articles and proceedings, which will benefit the public, academia and government.

Ireland's offshore wind strategy aims to achieve 37 gigawatts of offshore renewable energy capacity by 2050, including six gigawatts from floating offshore wind farms along the West Coast and the Shannon Estuary. Professor Daniel Toal, Co-Director of UL CRIS, noted that achieving this target requires developing efficient intervention, repair and maintenance solutions to ensure offshore operations are cost-effective.

The testing was part of the ATLANTIS project, which supports marine technology solutions for inspecting offshore wind structures. The project was funded by the Sustainable Energy Authority of Ireland (SEAI) under its Robots for Wind Farms initiative. Ocean Winds, the majority owner and operator of WindFloat Atlantic, played a crucial role in supporting the project, as did MaREI, the SFI Centre for Energy, Climate, Marine Research and Innovation.

A key challenge in inspecting floating wind turbines is the movement of the structures. The UL team successfully minimised this issue by using an adaptive control system for the ROV and custom machine vision algorithms for image post-processing. Dr Philippe Santos, Chief CRIS Scientist for the trials, expressed pride in the results and emphasised that the development of robotic technologies will increase efficiency, reduce costs and improve safety by reducing the need for human workers in hazardous conditions.

José Pinheiro, Ocean Winds Country Manager for South Europe, praised the collaboration, noting its importance in advancing the floating offshore wind sector to a commercial scale. This innovative partnership sets a precedent for future offshore wind farm projects worldwide.

KBS leads the way with plastic-free initiative and sustainability-focused learning

In early 2024, the KBS took a significant step towards sustainability by becoming entirely plastic-free, including removing all plastic products from its classrooms, Cube café, vending machines and water coolers. This initiative is part of a broader commitment to embedding sustainability into the school's ethos and ensuring that operational practices and academic programmes align with global sustainability goals. During 2024, all water coolers were removed from the KBS and water hydration stations were installed on each floor of the building and in the adjacent Schuman building. These have become hugely popular with staff and students.

Plastic pollution is one of the most pressing environmental issues of our time. Single-use plastics contribute significantly to waste and environmental degradation. Recognising this challenge, the KBS took decisive action to eliminate plastic from its operations, thereby setting a new standard for sustainability within UL. The transition to a plastic-free environment at the KBS has already led to a significant reduction in plastic waste on campus. By influencing thousands of students and staff members, this initiative serves as a model for other faculties and institutions.

In parallel with this work, the KBS is integrating sustainability into its curricula with a view to ensuring that students graduate with a strong awareness of environmental, social and governance principles. Learning outcomes across multiple modules now explicitly address sustainability challenges, equipping future business leaders with the knowledge and skills to drive sustainable change and ensuring the next generation of business professionals understand the importance of responsible management and sustainable decision-making. This initiative not only aligns with the SDGs but also strengthens UL's commitment to holistic sustainability.

As a UN Principles for Responsible Management Education (PRME) Champion institution, the KBS is committed to embedding the PRME into its teaching, research and operations. It has hosted various sustainability-focused events, such as the 5th CSEAR Ireland Conference and Inequality, and social sustainability events, which bring together academics, industry leaders and students to discuss sustainable business practices. Additionally, community-driven initiatives like the KBS Christmas Bike Appeal and research projects on responsible management further demonstrate the school's commitment to sustainability.

Sustainability is at the heart of the KBS mission. Removing plastic from daily routines such as eating lunch and getting a takeaway coffee are just small steps in the right direction. In a further step to reduce single-use plastics, the KBS launched its own branded reusable water bottle, which are available for purchase in the Visitor Centre and at specific times in the KBS foyer.

UL Accommodation's 'Waste Race' reduces landfill waste by 12% in 2024

In 2023/24, UL Accommodation proudly launched the 'Waste Race' initiative to improve both sustainable business operations and the student experience. In partnership with local waste management provider Mr Binman, the innovative campaign within UL's student housing aimed to educate students on effective residential waste segregation and, ultimately, reduce overall landfill waste.

The Waste Race initiative significantly advanced the residences' sustainability goals. Each village was equipped with bins for general waste, recycling, composting and glass. However, many students were initially unfamiliar with proper segregation systems. Through a comprehensive year-long marketing and education campaign, students were empowered to reduce their general waste disposal and increase their recycling and composting efforts. The results were remarkable: general waste was reduced by 12%, recycling increased by 28%, and composting saw a 17% rise compared to 2023.

UL Accommodation's Waste Race Committee played a pivotal role in the success of the initiative. The committee regularly informed students of their waste reduction progress and utilised friendly competition between residences to achieve their goals. Regular communication via a residences' email account and app was essential for maintaining student engagement and ensuring the campaign's success.

Despite these successes, several challenges were faced. One significant challenge was managing data accuracy and consistency. To overcome this, regular meetings were established with Mr Binman to ensure all parties were aligned on data collection and reporting. This collaboration was crucial in maintaining the integrity of the waste reduction metrics. Motivating students to participate actively was another challenge. To address this, peer competitions were introduced to foster a sense of friendly rivalry between residences. This approach not only motivated students but also built a stronger sense of community.

Educating international students on domestic waste systems presented another hurdle. Many were unfamiliar with local waste segregation practices. To bridge this gap, free waste bags were offered alongside in-house educational campaigns. These efforts ensured that all students, regardless of their background, could participate effectively in the initiative.

The Waste Race initiative not only promoted environmental responsibility but also enhanced the overall student experience. By creating a sense of community and friendly competition, students were motivated to actively participate. The opportunity to win prizes added an extra layer of excitement, making the campaign a memorable part of the students' time on campus while offering important life skills for independent living. This initiative stands as a testament to UL Accommodation's dedication to creating a better, more sustainable future for student residents.

UL staff capture the spirit of the season with children's bike donations

In the lead-up to Christmas 2024, UL staff proved that the festive spirit was alive and well by ensuring that families in need across the Mid-West region received donations of beautifully refurbished bicycles through the UL Christmas Bike Appeal. The charitable initiative – a collaborative and voluntary effort by a group of staff from across the campus – resulted in the donation of bikes to 35 children, ensuring their wishes to Santa indeed came true.

Led by Robert Dalton, Senior Learning Technologist in the KBS, the project team oversaw the renovation of 40 used bikes, with funds from sales and donations amounting to an impressive €3,500. A generously supported GoFundMe campaign garnered a further €4,000, and the total funds of €7,500 covered the refurbishment costs as well as enabling the generous bike donations. Robert spoke for the project team when he said, "We extend our heartfelt thanks to all the faculty, students and sponsors who supported the appeal. Special appreciation goes to Moynan's Bike Shop, Nenagh and Mags' Bakehouse, Nenagh for providing the space and facilities for bike renovations. Your support made this initiative possible."

The UL Christmas Bike Appeal – a collaboration with Extern and the Silver Arch Family Resource Centre – is a fresh and more sustainable take on the annual KBS Toy Appeal, through which UL staff members were invited to purchase toys for donation to St Vincent de Paul at Christmas time. Robert explains, "For years, the KBS Toy Appeal received overwhelming support from the Kemmy Business School and the entire university. However, the environmental impact of purchasing numerous plastic toys was a growing concern. This year, we aimed to make a more sustainable choice by refurbishing bikes, which offer children the joy and freedom of outdoor adventures, far surpassing the fleeting excitement of plastic toys."

In addition to Robert, the UL Christmas Bike Appeal team comprises Keith Kerley, Adrienne Horan, Sinéad Spain, Maura Griffin, Jess Beeley, Kevin Johnson, Jennifer Farrell, Sinéad Liston, Dermott Madden, Stephen Kett, Greg Rogala and Tom Flaherty.

Supporting local artisans and sustainable business: Fionán Coughlan's impact on Limerick's economy

In Season 2 of the KBS Future Thinking Podcast, the spotlight shifts back to Limerick, where Finbarr and Erin engage in an insightful conversation with Fionán Coughlan, a distinguished entrepreneur and alumnus of the International Business Programme at UL.

Fionán is the founder, owner and creative director of Re:Story Limerick, a unique venture that began in December 2020 at Limerick's Milk Market. Using his personal savings, Fionán established a storefront that not only showcases his own handcrafted goods but also offers a platform for local artisans from the Mid-West region. This space fosters a direct connection between makers and consumers while creating a vibrant marketplace for handmade products.

Despite the challenges posed by the pandemic, Fionán took this time to develop a business model that prioritises sustainability while also creating social value. His focus on supporting small and medium-sized enterprises (SMEs) in Limerick city and county has been central to his mission. By providing a platform for local makers, Re:Story Limerick contributes to the economic upturn of the region by helping to sustain and grow local businesses.

Limerick has long been known for its diverse retail landscape, and despite ongoing economic challenges, the retail sector continues to show potential for growth. Fionán's work at Re:Story Limerick highlights how sustainable business practices can foster community engagement and contribute to the city's economic development.

Student-led Sustainability

Weaving sustainability: Exploring traditional crafts

In March 2024, UL Student Sustainability collaborated with the UL History Society to host a unique basket-weaving workshop. Led by UL Student Sustainability Workshop Coordinator Akshata Bheemasamudra Mallikarjunappa, the session provided students with an opportunity to explore traditional crafting techniques while promoting sustainability.

Basket weaving is part of our rich cultural heritage and embodies principles of sustainability. By utilising natural materials such as reeds and grasses, basket weaving minimises environmental impact and fosters a connection to nature. Through hands-on experience, participants learned the art of weaving and gained an appreciation of traditional crafts and their role in sustainable living.

Beyond its cultural significance, basket weaving aligns with modern sustainability practices. By repurposing materials and adopting eco-friendly techniques, participants discovered how traditional crafts can contribute to reducing waste and promoting resourcefulness.

The collaboration between UL Student Sustainability and the UL History Society underscores the interdisciplinary nature of sustainability efforts. By integrating historical knowledge with practical skills, the workshop encouraged students to explore sustainable living from diverse perspectives and glean a holistic understanding of environmental stewardship.

As participants crafted their own baskets, they not only honed their creative skills but also embraced the principles of sustainability in action. Through initiatives like the basket weaving workshop, UL Student Sustainability continues to engage students in hands-on learning experiences that promote environmental consciousness and empower individuals to lead sustainable lifestyles.

UL Student Sustainability launches Facebook group to promote circular economy

The UL Student Sustainability team launched a new Facebook group, UL Secondhand, to help students buy, sell and donate items with ease. The initiative aims to reduce waste and encourage a circular economy by providing a dedicated space where students can give a second life to possessions such as textbooks, household items and clothes.

By creating a student-focused platform, the UL Secondhand group makes sustainable choices more accessible and convenient. It also helps cut down on unnecessary waste and alleviate financial strain. The initiative aligns with **SDG 12: Responsible consumption and production** and **SDG 13: Climate action**.

Student-led Sustainability

Structured debate explores sustainability and globalisation

On 18 April 2024, in a dynamic session hosted by Immersive Software Engineering (ISE) and the Centre for Sustainable Futures and Innovation, students from the ISE programme engaged in a structured debate on a motion entitled "In the interest of sustainability, nations should prioritise local production over consumption and globalisation". The debate featured two teams, each presenting compelling arguments on the topic. The first-year team (Ruan O'Dowd, Tóla Bowen MacCurtáin and Mia Borko) and second-year team (Rosie Kennelly, Eoghan O'Mahony and Tamar Orosz) shared their perspectives and engaged in rigorous discourse.

Participants examined various facets of sustainability and globalisation; they explored the implications of prioritising local production over consumption and the impact on environmental, economic and social dimensions. Thoughtful insights and evidence-backed arguments characterised the discussion, showcasing the students' depth of understanding and critical-thinking skills. After a spirited exchange of viewpoints, the audience voted in favour of the second-year team, affirming the strength of the team's arguments and its ability to persuade and engage the audience.

Special thanks are extended to Alison McDevitt from ISE for her efforts in organising and facilitating this thought-provoking debate. Alison's dedication ensured the success of the event and provided students with a valuable platform on which to exchange ideas and perspectives on sustainability and globalisation.

The structured debate on sustainability and globalisation underscores the vital role of debate and discourse in unpacking the intricacies of contemporary sustainability issues. By engaging in reasoned argumentation and critical analysis, students not only deepen their understanding of complex topics but also cultivate essential skills in communication, persuasion and collaboration. Debates provide a platform for exploring diverse viewpoints, challenging assumptions and examining the multifaceted nature of sustainability challenges.

Through respectful dialogue and rigorous examination of evidence, participants gain insight into the interconnectedness of environmental, social and economic factors, thereby fostering a deeper appreciation for the nuances inherent in addressing sustainability issues. As such, debates serve as catalysts for intellectual growth, encouraging students to approach sustainability topics with curiosity, open-mindedness and a commitment to finding innovative solutions.

Giving Voice

Sustainability is about creating both a present and a future where people, communities and ecosystems thrive together. Every decision we make – whether in business, research or daily life – shapes the world. By prioritising responsible consumption, innovation, teamwork and empathy, we ensure that sustainability is not just an ideal but a shared commitment to a better tomorrow.

Finn Lannon
Lecturer in Marketing and Psychology, PhD student in Psychology



13 CLIMATE ACTION

Take urgent action to combat climate change and its impacts.

Addressing climate change with behavioural science

Researchers from UL's Department of Psychology were involved in a major international psychology study on ways to increase global climate awareness and action. The large 'many-labs'-style global project resulted in the creation of a behavioural science tool – the Climate Intervention Webapp – for policymakers and advocacy groups. Involving almost 250 researchers and 59,000 participants from 63 countries, the study is published in the Science Advances journal. According to the researchers, the tool can increase climate awareness and climate action globally as it highlights messaging themes that have been shown to be effective through experimental research. It can take into account a range of factors, such as nationality, age, gender, income level and political ideology.

Siobhán Griffin and Cillian McHugh, both assistant professors in the Department of Psychology, led the Irish component of the multi-lab research study. "We are very excited to be involved in this project – and to ensure that people in Ireland's responses were represented in this important work," explained Professor Griffin. "Climate change is going to affect everyone, and finding ways to increase support to address climate change is pressing. This work would not have been possible without all the people who volunteered to take part in this research, so we are very grateful to them." Madalina Vlasceanu, an assistant professor in New York University's Department of Psychology and the paper's lead author, elaborated, "We tested the effectiveness of different messages aimed at addressing climate change and created a tool that can be deployed by both lawmakers and practitioners to generate support for climate policy or to encourage action."

Overall, the authors tested 10 expert-crowdsourced interventions on four climate mitigation outcomes: beliefs, policy support, information-sharing intention, and an effortful tree-planting behavioural task. For example, some people read 'doom-and-gloom'-style messages (e.g., "Climate change poses a serious threat to humanity") and others were asked to write a letter to a member of a future generation outlining what climate actions they are undertaking today to make the planet liveable in 2055.

After being presented with an intervention, participants then completed items that tested their support for climate-related views, policies and actions (e.g., supporting raising carbon taxes on gas/fossil fuels/coal or participating in a tree-planting initiative) to see how effective the intervention was. Participants' desire to share climate-mitigation information on social media was tested. For example, would they post this phrase on their social media platforms: "Did you know that removing meat and dairy for only two out of three meals per day could decrease food-related carbon emissions by 60%?" The data were collected between July 2022 and May 2023.

In relation to the study's outcomes, Dr Vlasceanu explained that "Our results illuminate the impact of messaging aimed at achieving specific objectives. At the same time, these findings make clear that effective outreach depends on peoples' pre-existing belief in climate change, showing that policymakers and advocates need to tailor their outreach to the characteristics of their audience."

Developing sustainability competences and intercultural communication through a virtual exchange

CliVEx, or Climate Virtual Exchange, is an EU-funded project designed to enhance intercultural dialogue between students from Europe and the Southern Mediterranean area on the topic of climate change. The 10-week initiative aims to deepen participants' understanding of climate change and promote inclusive climate action by connecting students from diverse national and cultural backgrounds. Through these interactions, CliVEx fosters intercultural competencies and prepares students to address climate challenges collaboratively. The online exchange was implemented in the Faculty of AHSS during the autumn semester 2024 with students enrolled on the 'Communication Across Cultures' Broadening module.

Under the guidance of Dr Florence Le Baron Earle and Dr Marta Giralt and trained facilitators from the Sharing Perspective Foundation, students engaged in discussions, skill-building activities and collaborative projects on climate justice. Based on student testimonies, CliVEx has had a significant impact on students' intercultural communication skills and awareness of climate-related issues. They have reported feeling more confident when engaging with peers from different cultural backgrounds and having a deeper understanding of the complexities surrounding sustainable development.

The project seems to have successfully enabled the exchange of ideas, developed digital literacy and sustainability competences, and fostered a sense of global citizenship among students. One example of students' active citizen participation is the creation of the Insta@climatea_official podcast to advocate and promote sustainability.

According to one student participant of CliVEx, "This journey has not only broadened my understanding of the climate crisis but has also transformed the way I see the world. I feel part of a global network of people who want a better future, and I am determined to do my part. I have learnt that change is made up of small steps: starting with daily choices, educating myself and others, and supporting policies and initiatives that promote sustainability."

UL is an associate partner in CliVEx, which is coordinated by the Mediterranean Universities Union (UNIMED). Comprising higher education and research institutions, UNIMED promotes academic cooperation in the Euro-Mediterranean region, Sub-Saharan Africa, Middle East and Western Balkans. CliVEx aligns with **SDG 4: Quality education**, **SDG 13: Climate action** and **SDG 17: Partnerships for the goals**.

Inaugural climate action summit tackles climate crisis through ground-up approach

In alignment with the Irish Government's Public Sector Mandate on Climate Action, the Centre for Sustainable Futures and Innovation brought together over 70 staff members from across the UL community for the inaugural Climate Action Summit on Wednesday, 3 April 2024.

Themed 'Local Action for Global Impact,' the gathering builds on UL's mission-driven sustainability framework. The goal is to support and amplify the efforts of UL students and staff, activists, businesses, NGOs and policymakers to tackle the challenges of climate change. This synergy between knowledge and action is critical as it fosters the development of practical, scalable solutions that can be adapted in other contexts.

The summit engaged an independent facilitator of Open Space Technology to guide the group through the process of identifying topics and themes that resonated and tapped into participants' own experiences. The method invites attendees to propose topics of conversation and gathers those interested in the topic to discuss ideas and concerns, ask questions and identify points of action.

Open Space Technology proved to be a powerful tool for bringing people together across disciplines and departments to share their work, ideas and knowledge and to build connections that will hopefully spark collaborations to address sustainability and climate issues at UL and beyond.

A wide range of topics was proposed for discussion – from active transportation and cycling to degrowth and the new economy. Participants joined in lively conversations and shared ideas about how to improve communication around sustainability to the campus community, ensure accountability to climate and sustainability targets, and identify the 'easy wins' – actions that make a difference more quickly. Many learned about existing sustainability initiatives and offered ways to build upon them. It is anticipated that further climate action training will be available to the campus community going forward.

Exploring Ireland's waterways: Sustainability, tourism and innovation on the KBS Future Thinking Podcast

Dr Matthew Daniels, a leading advocate for Ireland's waterways, joined the KBS Future Thinking Podcast in March 2024 to discuss the intersection of sustainability, tourism and innovation. With over three decades of experience in manufacturing and engineering, Dr Daniels has dedicated 14 years to fostering industry innovation through partnerships at UL and on EU-funded projects.

A member of the KBS Department of Management and Marketing, Dr Daniels's research focuses on integrating advanced technology into product lifecycle management, promoting a circular economy and driving sustainable innovation among SMEs. Alongside his industrial contributions, he is passionate about knowledge-sharing, both in practical and academic settings, and actively supports entrepreneurial and innovative mindsets.

The discussion explored the role of the Inland Waterways Association of Ireland (IWAI), which was established in 1954 to protect and promote Ireland's inland waterways. Initially formed to ensure the navigability of the Shannon for recreational boating, IWAI has since expanded its advocacy efforts to include the protection and restoration of vital waterways, such as the Grand Canal, the Barrow, the

Royal Canal and the Shannon-Erne Waterway. The association works closely with government bodies, Waterways Ireland and other stakeholders to maintain and enhance Ireland's extensive network of rivers, lakes and canals.

Limerick City and County Council and UL Journalism collaborate on climate change project

Limerick City and County Council, the Journalism section of the School of English, Irish, and Communication and a multidisciplinary team of partners won €249,000 in 2024 from the government-backed Creative Climate Action Fund for a project entitled Síolta Glasa (meaning 'green seeds'). The aim of the climate change project is to empower community groups to tell stories about decarbonisation efforts in their communities by collaborating with creative partners.

The project builds on the successful implementation of the creative climate action collaborative project Decarbonising Together, which was delivered in Limerick in 2022. The importance of sharing and amplifying creative community stories to inspire other communities and promote local behavioural change is a critical aspect of Síolta Glasa. Led by Dr Fergal Quinn, the Journalism section launched the project in June 2024, and a team from journalism@ul team conducted storytelling workshops in September and November. The collection of data and stories for the project is ongoing.

A scientific evidence-based approach to creative practice in climate projects is an important aspect of Síolta Glasa, and collaborations will be supported by a Science Advisory Group convened by the MIC Geography Department. The Science Advisory Group will provide advice and links to scientific expertise and knowledge that will underpin the decarbonisation journey of the collaborations based in science and ensure there is sound data and evidence to inform the projects.

In collaboration with the Department of the Environment, Climate and Communications and the Department of the Taoiseach, the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media launched the Creative Climate Action Fund II in 2023. This Creative Ireland initiative supports creative, cultural and artistic projects that build awareness around climate change and empowers citizens to make meaningful behavioural changes.

Dr Daniels's dedication to waterway conservation and restoration was recognised when he won the UL Award for Excellence in Service to the Community 2023. As a leader within the IWAI and a founding member of its Environmental Special Interest Group, he is committed to making Ireland's waterways accessible, safe and enjoyable for all while ensuring their sustainability for future generations.

GLSD insights with Niamh Schmidtke: Exploring environmental engagement

Lying at the heart of the Global Leadership for Sustainable Development (GLSD) programme, environmental awareness involves understanding environmental complexities alongside social and economic sustainability. As part of GLSD's Environment Week on Tuesday, 5 March 2024, students had the opportunity to engage in a dialogue with Niamh Schmidtke, an artist and advocate renowned for her exploration of environmental consciousness.

Niamh's session drew participants from both the GLSD programme and the wider student body. With a diverse background spanning speculation, audio, ceramics and installations, Niamh provided unique insights into the complexities of 'being green.' She emphasised the importance of considering different voices within the environment and challenged attendees to rethink traditional notions of environmentalism.

During the session, Niamh delved into the financial origins of climate crises and urged attendees to critically examine the discourse surrounding renewable energies. Through her perspective, she highlighted the need for a pragmatic approach to sustainability – one that is grounded in a deep understanding of environmental and economic dynamics. The conversation also touched on the concept of intimacy as a decolonial praxis for the future. Attendees explored the transformative potential of intimate connections with the environment to foster inclusivity and disrupt conventional power structures.

Niamh Schmidtke's session left attendees with a renewed perspective on environmental engagement. Her interdisciplinary approach and thought-provoking insights inspired participants to integrate environmental considerations into their personal and professional endeavours.

Student-led Sustainability

UL students rise to the sustainability challenge

The UL Student Sustainability Challenge is a flagship initiative that fosters student innovation and action in line with the SDGs. Hosted by the Centre for Sustainable Futures and Innovation, the challenge empowers students to develop real-world solutions to pressing environmental and social issues that contribute to UL's mission of becoming a sustainable university by 2030.

The 2024 shortlisted projects took innovative approaches to sustainability across fields as diverse as nature and biodiversity; renewable tidal energy; renewable energy for sustainable agriculture; and corporate environmental, social and governance discourse. Each project was selected from a competitive pool of applications and represents the very best of interdisciplinary collaboration, combining academic insight with practical impact.

The shortlisted projects were:

- **Tidal Energy Turbine Redesign with Biomimicry:** Emilia Ziolek (BSc Product Design and Technology) will develop a prototype of a bladeless tidal energy turbine inspired by the fluidity and net-like characteristics found in marine life and designed to harness energy without harming aquatic ecosystems.
- **Sustainable Agriculture IoT Sensors Powered by Hybrid Vibrational Energy Harvester (SAG-IoT-HVEH):** PhD students Ibnu Taufan and Nouman Ghafoor (School of Engineering) will create a prototype of a renewable energy source to power IoT sensors in agriculture using ambient vibrations from farm equipment such as water pumps and air compressors. The energy source could potentially replace more costly and environmentally harmful disposable batteries.
- **Nature Signage on Campus:** James Organ (BSc Physical Education with Geography) and Karl Gilmartin (BS Immersive Software Engineering) spotted an opportunity to highlight biodiversity throughout the UL campus by creating interpretation boards complete with QR codes for further exploration.
- **Manufacturing Complacency? The Effect of ESG Discourse on Climate Risk Perception:** PhD students Keelan McMahon, Finn Lannon and Emer Owens's research project will investigate how corporate ESG communications influence public climate risk perceptions. The aim of the project is to improve transparency and policy action.
- **Documentary Film Exploring Wildlife of UL:** James Organ (BSc Physical Education with Geography) will produce a wildlife documentary to highlight campus native wildlife while addressing the impact of invasive species on habitats.

Each shortlisted project received funding and access to expert mentorship to develop their ideas. Their work will culminate in April 2025 during UL's Research Week, when finalists will present their innovations to a panel of experts and the wider community. According to Andrea Deverell, Director of the Centre for Sustainable Futures and Innovation and chair of the shortlisting panel, "The calibre of applications we received this year was exceptional, making the selection process incredibly challenging."

The Sustainability Challenge is made possible through the generous support of sponsors Kirby Group Engineering and Bidvest Noonan, whose commitment to UL and sustainability is helping to inspire the next generation of innovators. Jason Doherty, Head of Sustainability at Kirby Group Engineering, said, "We are delighted to support the Student Sustainability Challenge. The variety of projects shortlisted this year target many aspects of sustainability, from renewable technology design to biodiversity awareness to sustainability communications. I look forward to seeing the results next April."



Students whose projects were shortlisted for the UL Student Sustainability Challenge 2024/25 include (L to R) Finn Lannon, Karl Gilmartin, Emilia Ziolek, Ibnu Taufan, Emer Owens and James Organ.

Student-led Sustainability

Unveiling sustainability: A guided tour of UL's initiatives

Understanding the practical applications of sustainability is paramount for students in the GLSD programme. Led by UL's sustainability expert J.J. Leahy, students embarked on a transformative journey through the University's sustainable initiatives on Thursday, 8 February 2024. By showcasing a myriad of projects aimed at promoting sustainability across campus, the tour offered a comprehensive overview of UL's commitment to environmental stewardship.

From the student bike rental scheme to the rooftop garden, students witnessed firsthand the tangible impact of sustainable initiatives at UL. J.J. provided expert insights into the challenges of implementing and maintaining such projects and highlighted the importance of community engagement and interdisciplinary collaboration.

The tour also offered students the opportunity to explore the creeks and aquatic life, apple orchard, river bank walk, bat house, beehives and pollinator field, all of which provided the students with a holistic understanding of the interconnectedness between biodiversity and sustainability.

The sustainability tour served as a catalyst for students to deepen their commitment to environmental stewardship. Armed with newfound knowledge and insights, students were inspired to become agents of change and to advocate for sustainability both on campus and in their future endeavours.

Student-led Sustainability

UL Environmental Society members attend national climate summit at TU Dublin

On 31 October 2024, three members of the UL Environmental Society and UL Student Sustainability Coordinator Elisa Minoue travelled to Technological University Dublin (TU Dublin) to take part in a national student climate summit.

Held on TU Dublin's Grangegorman campus, the event brought together student representatives from higher education institutions across Ireland to discuss the role of universities in tackling climate change. The day-long summit featured guest speakers, panel discussions and interactive workshops and provided students with a platform for sharing ideas and exploring practical climate action strategies.

According to one Environmental Society student attendee, "It was a thoroughly enjoyable event, with inspiring speakers, engaging discussions and group activities. We explored key climate challenges and brainstormed ways that students can take meaningful action in the fight against climate change."

The summit highlighted the power of student collaboration in driving sustainability efforts across campuses nationwide. By participating, UL students contributed to a growing network of climate-conscious student leaders, thereby strengthening the collective push for a more sustainable future in higher education.

Giving Voice

Sustainability has a unique ability to unite people for the greater good. At UL, my role involves engaging students in sustainability initiatives. It's truly impressive to witness students from diverse educational backgrounds, countries, age groups (etc.) coming together to understand and act on sustainability. As sustainability becomes an increasingly common topic in our conversations, it is crucial that we learn to collaborate effectively, to develop creative solutions for a better future.

Elisa Minoue
UL Student Sustainability Coordinator



14 LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

CRIS joins Irish delegation at SeaTech Week 2024 In Brest

The Centre for Robotics and Intelligent Systems (CRIS) was delighted to be part of the Irish delegation at SeaTech Week 2024, which took place from 15 to 17 October in Brest, France. SeaTech Week is one of the largest international events on marine and maritime science and technology; it draws over 1,200 top experts from around the world to discuss the latest advancements in ocean-related fields.

Organised by Technopôle Brest-Iroise through Campus mondial de la mer, SeaTech Week has played a key role in fostering international research and business collaboration in marine science for more than 20 years. In 2024, Ireland was designated the 'Country of Honour' for its focus on maritime safety and security, which made the event an important occasion for the Irish delegation to showcase its expertise and innovations in marine technology.

Over the course of three days, CRIS's representatives Dr Gerard Dooly and Isela Ibrahimovic engaged in numerous discussions around marine innovation, cybersecurity and offshore technology and explored new opportunities for international collaboration in the blue economy. They worked alongside other Irish representatives from Enterprise Ireland, the Marine Institute, the Irish Maritime Development Office and the National Maritime College of Ireland.

CRIS co-director Dr Dooly presented the centre's ongoing EU projects and capabilities at a French-Irish workshop on enhancing Franco-Irish collaboration in the blue economy. Organised by Fiona Grant of the Marine Institute and Jean-Michel Portefaix of Expertise France and Enterprise Ireland, the workshop focused on funding opportunities to support innovation in marine science and technology. At a workshop dedicated to innovative drone and autonomous vehicle applications in marine environments organised by IIT Goa, India, Dr Dooly highlighted CRIS's cutting-edge research in drone technology.

Special thanks to the Embassy of Ireland in France for coordinating the Irish delegation and facilitating CRIS's participation and to Campus mondial de la mer for organising a highly engaging and productive SeaTech Week.

Unlocking the underwater code with Dr Edin Omerdic

UL Senior Research Fellow Dr Edin Omerdic's OceanRINGS software system will enable unrivalled precision control of remotely operated vehicles (ROVs) using mixed reality. A member of CRIS and the Department of Electronic and Computer Engineering, Dr Omerdic has been at the forefront of underwater robotics innovation for over two decades. His journey into subsea exploration began during his PhD studies in the UK, where he developed a novel algorithm for diagnosing and accommodating thruster faults in underwater robots. This passion for marine exploration has driven his career ever since.

In 2005, Dr Omerdic started developing OceanRINGS, an innovative ROV control system. Designed to simplify complex subsea tasks, OceanRINGS incorporates cutting-edge navigation tools, control algorithms and virtual reality technologies. Its dynamic positioning system enables even novice pilots to perform precise underwater manoeuvres.

One of the standout features of OceanRINGS is its ability to synchronise ROV movement with a support vessel, which improves the safety and efficiency of underwater surveys. The system's adaptive path-following capability allows it to adjust to the movement of offshore structures like floating wind turbines in real-time, which enhances the quality of inspections.

Driven by a passion for pushing the limits of underwater exploration, Dr Omerdic's groundbreaking work continues to propel CRIS into new frontiers of marine technology.

Giving Voice

Sustainability is not just a responsibility; it is an opportunity to shape a thriving future. Each action we take, no matter how small, contributes to resilience, equity and innovation. At UL, we see sustainability as a shared journey, where learning, collaboration and commitment empower us to protect our planet and create lasting impact for generations to come.

Vicky Kelly
Operations and Engagement Manager, Centre for Sustainable Futures and Innovation



15 LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

UL researchers secure grant to lead groundbreaking peatland research

Led by Professor Ken Byrne of the Department of Biological Sciences and Bernal Institute, the PeatFor project was launched in Farmleigh in Dublin's Phoenix Park on 9 July 2024 by Minister Martin Heydon (then Minister of State at the Department of Agriculture, Food and the Marine with special responsibility for Research and Development, Farm Safety and New Market Development). The total award is €2.7 million, of which UL is set to receive just over €1 million.

The funding of this project is pivotal and will have important consequences for the Irish forestry sector. Forests have always been regarded as carbon sinks by sequestering carbon from the atmosphere, thereby helping to mitigate the greenhouse gas emissions that cause climate change. However, by decomposing soil organic matter, peatland forests are also sources of carbon. Recent publications by Professor Byrne's research group reported that carbon emissions from forested peat soils are three times higher than previously reported (2021 paper by Jovani-Sancho et al.). Therefore, the assessment of the net carbon sequestration capacity of peatland forests in Ireland is much lower than previously understood.

This research drew attention to the importance of peatland forests in the national greenhouse gas inventory and highlighted our limited understanding of carbon dynamics in peatland forests. With the scale of the award reflecting the magnitude of the challenge, PeatFor will address this knowledge gap through a series of experiments and will identify alternative management options that improve the sustainability of peatland forests. This will help meet UN SDGs on climate action (SDG 13) and life on land (SDG 15).

At the launch of PeatFor, Minister Heydon acknowledged the importance of the research by stating that the grant "will help equip the Irish agriculture, food, forest and bioeconomy sectors with the science and technology they need to become even more sustainable and competitive into the future."

Professor Byrne and his growing team will work in collaboration with colleagues in UCD, TCD and Teagasc. With support from Coillte, the team will establish a network of targeted field experiments, which will give rise to empirical knowledge of carbon cycling and biodiversity in peatland forests. This will inform climate change policy and the sustainable management of peatland forests.

The potential impact of PeatFor is far-reaching. It will pay for five PhD students and one postdoctoral student to be educated across leading Irish universities and Teagasc and will enable liaison with a range of forestry stakeholders and industry experts. The scientists will be trained in state-of-the-art techniques that will enable them to engage in interdisciplinary scientific research to support the multiple aims of sustainable forest management and the SDGs.



Professor Ken Byrne and Minister Martin Heydon TD at the DAFM project launch in Farmleigh

Advancing Ireland's circular bioeconomy through anaerobic digestion

Ireland's Climate Action Plan mandates a 51% reduction in greenhouse gas emissions by 2030 (relative to 2018 levels) and a transition to a carbon-neutral economy by 2050. Achieving these ambitious targets requires innovative approaches to land use, energy generation and waste management. Anaerobic digestion (AD) has emerged as a key technology in this transition – it offers a circular bioeconomy solution by converting organic waste into renewable biomethane and nutrient-rich digestate for agricultural use.

Led by Professor David Styles at University of Galway and involving Professor Ken Byrne of the Department of Biological Sciences and Bernal Institute, a research project is exploring how AD can be integrated into

Ireland's bioeconomy to mitigate greenhouse gas emissions, enhance nutrient cycling and optimise land use. By assessing bioeconomy scenarios that incorporate AD, the project aims to identify pathways for scaling up renewable energy production while supporting sustainable agricultural and forestry practices. The outcomes will contribute directly to Ireland's climate goals by informing policy, guiding investment in AD infrastructure and promoting the circular use of resources.

The research is part of the collaborative FORESIGHT project (Future ORiEnted ScenarIo modellinG of Holistic land use sTrategies), and the Land Use and Bioeconomy work package is led by Professor Byrne. The project aims to develop forward-looking land-use strategies that align with climate action commitments including **SDG 7: Affordable and clean energy** (by promoting biomethane as a renewable energy source), **SDG 12: Responsible consumption and production** (by enhancing circularity through organic waste valorisation), and **SDG 13: Climate action** (by reducing emissions through improved waste management and land-use strategies).

NutriSTORM: Advancing sustainable agriculture through soil stoichiometry management

Despite significant investments in sustainable agriculture across Europe (ca. 38% of EU and UK annual budget for agriculture), challenges such as low nutrient use efficiency (NUE), groundwater pollution and soil erosion continue to undermine long-term agricultural sustainability. To address these pressing issues, a fundamental shift is needed – from a linear to a circular economy approach. This transition will reduce reliance on synthetic fertilisers while enhancing nutrient efficiency and minimising environmental harm.

Bio-based fertilisers derived from circular economy practices offer a promising solution. Unlike conventional mineral fertilisers, they release nutrients more gradually, thereby improving NUE and reducing nutrient losses via leaching, runoff or gaseous emissions.

As part of the Green ERA-Hub call (part of Horizon Europe Research, funded through national funding agencies), the NutriSTORM project aims to establish practical agronomic strategies for integrating bio-based fertilisers into farming systems while generating mechanistic insights into the impact of the fertilisers on soil health. By improving nutrient use efficiency, NutriSTORM contributes to achieving the EU 2030 targets of a 50% increase in NUE and a 20% reduction in fertiliser application.

The project is led by Professor Achim Schmalenberger from the Department of Biological Sciences, who serves as the project coordinator and work package lead. Key partners include Teagasc (Ireland), the University of Warwick (UK), the Technical University of Munich (Germany), and BioAtlantis Limited (Ireland). NutriSTORM's findings will provide a scientific foundation for sustainable agricultural practices by identifying microbially driven soil processes that enhance soil fertility and reduce fertiliser dependency. The research will not only help farmers transition to more sustainable fertilization methods but also support broader climate and environmental goals.

According to Dr Jianqing Tian, NutriSTORM's project researcher at UL, "NutriSTORM is not just about improving fertiliser efficiency – it's about creating a farming system that is more resilient, sustainable and better for the planet".

The project aligns with several SDGs, including ensuring sustainable and affordable food production (SDGs 2 and 10), promoting healthier populations by reducing fertiliser-related pollution (SDG 3), reducing groundwater contamination from agricultural runoff (SDG 6), decreasing reliance on imported synthetic fertilisers (SDG 12), and mitigating climate change impacts and protecting ecosystems through less intensive agricultural practices (SDGs 13 and 15).

Citizen Science in action as UL hosts intervarsity biodiversity 'blitz'

UL students became 'Citizen Scientists' for a day by participating in a BioBlitz to establish the level of biodiversity on campus. The BioBlitz records all the biodiversity in a given area over a short period of time. The event was organised by the student-led Environmental Society with support from the UL Environmental Committee, Limerick's Irish Wildlife Trust members and the Ballyhoura Development Company.

Students from TCD and the Technological University of Dublin joined the UL students in the BioBlitz. With help from seven experienced ecologists, the participants were asked to document what they saw using a digital mapping app on their phone, which helped them identify various species of plant, insect and wildlife. The day featured several events,



UL staff and students and members of the general public take part in UL BioBlitz 2024.

including a bird walk along the Shannon riverbank with Limerick-based ornithologists Tom Tarpey and Maura Turner.

Later in the day, Yvonne Ryan, Associate Professor in Environmental Science in the Department of Chemical Sciences and UL Environmental Committee member, led a nature walk along the riverbank pointing out various species, explaining about the environmental management of the Shannon, and highlighting the impact of invasive alien species on native biodiversity. Speaking ahead of the event, Associate Professor Ryan gave some background to the BioBlitz: "Rachel Beck and Frank Fitzgerald of UL's Environmental Society initiated this year's BioBlitz, with the unique idea of connecting with other campuses and facilitating a visit to UL, recorder education, and a fun event to strengthen the links between campus environmental societies across Ireland. UL Environmental Committee staff led UL's entry into the National Intervarsity BioBlitz in 2015 and were delighted to help the students to reignite BioBlitz on campus. The Buildings and Estates team plays a major role in facilitating and supporting BioBlitz and is eagerly awaiting the results." The assessment conducted during the BioBlitz will help Building and Estates to evaluate the impact of pollinator patches established across the campus as part of the All-Ireland Pollinator Plan.

Associate Professor Ryan added, "Green space is important for wellbeing: more biodiverse green spaces deliver greater benefits for wellbeing. Therefore, the quality of the green space matters a great deal, and a key measure of this is biodiversity."

Elizabeth Gabbett, Geography Teaching Assistant and Laboratory Manager for UL's Geography section, helped to coordinate the event. According to Elizabeth, the BioBlitz is "a perfect example of citizen science in action. Citizen science is a data collection by members of the public to help answer research questions. By enabling people to be recorders and use technology and by providing support from experienced ecologists, you are giving people confidence that what they are recording is accurate. It's a fun way of getting people to understand about habitats and wildlife and practising species identification."

The event promoted SDG 15 (Life on land), which sets out to protect, restore and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss.

UL researchers awarded funding under National Challenge Fund and Department of Agriculture calls

Three UL researchers received funding under separate calls for projects in green transition; digital transformation; and agri-food, forest and bioeconomy sectors.

Professor James Sweeney of the Department of Mathematics and Statistics and Professor Maurice N. Collins of the School of Engineering were awarded funding under the 'Grow Phase' of the National Challenge Fund. Worth €65 million, the programme aims to develop solutions for significant environmental and societal challenges. Professor Sweeney's project – GREEN-GRID – focuses on predicting green electricity generation from renewable sources for optimised grid management. He co-leads the project with Professor Vikram Pakrashi from UCD. Meanwhile, Professor Collins is co-leading Traceless, which is developing biodegradable tree-supporting products with controlled release of fertilisers and pesticides to reduce microplastic and chemical pollution. The project is led by Dr Yuanyuan Chen from TUS.

Established under the Government's National Recovery and Resilience Plan and funded by the EU's Recovery and Resilience Facility, the National Challenge Fund has supported 96 teams to date. These teams aim to identify issues related to Ireland's green transition and digital transformation while collaborating with stakeholders to create real-world solutions. A total of 16 teams were awarded funding across four challenge areas: Energy Innovation, Digital for Resilience, Healthy Environment for All, and OurTech. The teams will be eligible for additional funding, with prize funding of €1 million to €2 million available in the final phase.

In a separate announcement, Professor James J Leahy, Department of Chemical Sciences, received funding from the Department of Agriculture's 2024 Policy and Strategic Studies Research Call. His project on bio-based fertilisers from digestate will explore policy options to facilitate their adoption on Irish farms and possibly for export. The research is part of a wider initiative that includes 28 challenge areas across food safety, animal health, agriculture, environmental sustainability, bioeconomy and forestry. Minister of State at the Department of Agriculture Martin Heydon highlighted the funding of €4 million for 21 new projects aimed at addressing policy, strategy and regulatory issues in these sectors. The projects receive funding of up to €250,000 each and can last for up to 24 months. The goal is to develop high-quality, public-good research that informs public policy, strategy and regulation.

Giving Voice

While every sustainable development goal is important, I feel that life on land and in water is often overlooked. It is our wildlife and nature that are suffering the most from our unsustainable actions. In an age of technological advancement and innovation, we must not forget the incredible and unique species we share this earth with, who deserve protection just as much as we do.

James Organ
BSc Physical Education with Geography student



16 PEACE, JUSTICE AND STRONG INSTITUTIONS

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

Dr Laura Cahillane named Legal Educator of the Year

Dr Laura Cahillane, Associate Professor at UL's School of Law, was named Legal Educator of the Year at the Irish Law Awards on 19 June 2024. The prestigious award recognised Dr Cahillane's excellence in research-led teaching and her involvement in significant constitutional law cases. Dr Cahillane's contributions to legal education include advising the Oireachtas and government departments and the role she played in the landmark Heneghan case, which led to legal changes. By drawing from her real-world legal experiences, her teaching approach focuses on making law more tangible for students.

Dr Cahillane has introduced innovative methods such as a flipped classroom for advanced constitutional law at master's level. This teaching model involves giving students readings in advance of in-class discussions. Students then reflect on their learning in diary entries, which fosters critical thinking and citizenship. Dr Cahillane's teaching philosophy is centred on developing students not only as legal experts but as engaged and reflective citizens who can drive legal change.

In addition to her teaching, Dr Cahillane has been actively involved in student activities, including mentoring in mooting competitions and leading workshops for the Plassey Law Review. She is the editor of the *Irish Judicial Studies Journal*. Reflecting on her teaching journey, Dr Cahillane finds immense satisfaction in helping students grasp complex legal concepts, particularly when they experience that "aha" moment of understanding.

Dr Cahillane's expertise was of significant benefit to UL graduates when she served as an expert witness in a landmark case brought by Tomás Heneghan, a UL graduate who argued for the right to vote in Seanad Éireann elections. The Supreme Court ruled in Heneghan's favour when it determined that the 1979 amendment to the Constitution must be implemented to extend voting rights to graduates of all third-level institutions, not just NUI and TCD graduates. Dr Cahillane explained that the case, driven by Heneghan's commitment to addressing the inequality, had significant constitutional implications and could pave the way for broader Seanad reform. She described the ruling as a "victory for democracy" and praised the court's decision for its potential to bring about much-needed reforms. She expressed her pride in contributing to the case, noting its practical impact on the future of Irish democracy and the interpretation of the Constitution.

On the occasion of winning the Legal Educator of the Year award, Dr Cahillane's achievements, both in the classroom and the courtroom, were hailed as a reflection of the high standard of legal education at UL and of her unwavering dedication to both her students and the advancement of Irish constitutional law.

UL contribution to 2024 hate crime legislation

Professor Amanda Haynes (Department of Sociology) and Professor Jennifer Schweppe (School of Law) played a central role in developing an evidence base for the need for, and form of, hate crime legislation in Ireland. Since 2013, their work with civil society organisations, policymakers and politicians to co-create such a body of evidence has included publishing a series of research reports, such as A Life Free From Fear – Legislating for Hate Crime in Ireland: An NGO Perspective; Out of the Shadows: Legislating for Hate Crime in Ireland; and Lifecycle of a Hate Crime: Country Report for Ireland. The two members of UL's European Centre for the Study of Hate also authored a report on the implementation of hate crime legislation in Europe entitled Lifecycle of a Hate Crime: Comparative Report and co-produced an edited collection entitled Critical Perspectives on Hate Crime: Contributions from the Island of Ireland.

Following the publication of Lifecycle of a Hate Crime: Country Report for Ireland, the Minister for Justice stated, "This report on hate crime is a hugely important piece of research and makes a series of recommendations on how our criminal justice system can do better in combatting hatred. … They are a very valuable contribution to the development of improved policy and procedures in this important area. … I am making arrangements for this report and its recommendations to be urgently examined by my Department … with the aim of bringing forward proposals to address the findings of the report."

After Professor Haynes and Professor Schweppe presented their research to the United Nations Committee on the Elimination of Racial Discrimination in 2019, the Minister announced that hate crime legislation would be introduced. After supporting the development of that legislation and publishing a report that analysed the Heads of Bill, Professor Haynes and Professor Schweppe were invited to present to the Justice Committee, which cited their work in its subsequent report.

Following the publication of the Bill, the two researchers again made a series of recommendations, the vast majority of which were supported by the national civil society Coalition Against Hate Crime, to which they are advisors. The Bill stalled during the legislative process, and their intervention, which proposed a pragmatic solution to the issue, was adopted by the government. This Bill passed in the form of the Criminal Justice (Hate Offences) Act 2024.

As well as contributing directly to **SGD 16: Peace, justice and strong institutions**, this work aligns with **SDG 10: Reduced inequalities**.

Council of Europe recommendation on combating hate crime

Professor Jennifer Schweppe was one of four independent experts who sat on the 14-person Council of Europe Committee of Experts on Combating Hate Crime, which was tasked with drafting the Council of Europe Recommendation on Combating Hate Crime along with a 31-page explanatory memorandum. The Recommendation was adopted by the Council of Ministers in 2024 (CM/Rec 2024(4)). It includes a new definition of hate crime in international law, which is a significant departure from previous standards; the definition reflects that set out in European Centre for the Study of Hate scholarship, including in Out of the Shadows: Legislating for Hate Crime in Ireland; *Lifecycle of a Hate Crime: Country Report for Ireland, Lifecycle of a Hate Crime: Comparative Report, and What Is a Hate Crime*. It also adopts the term 'the continuum of hate', coined by Professor Barbara Perry and Professor Schweppe.

While the Recommendation is not binding on member states, it forms part of the policy framework and proposals for implementation by governments across the 46 member states of the Council of Europe. It will guide institutions such as the European Court of Human Rights and the European Commission against Racism and Intolerance in their work to explain and combat hate crime. Professor Schweppe is co-editor of the forthcoming European Handbook on Hate Crime (de Gruyter).

Irish Travellers' Access to Justice project

The Irish Travellers' Access to Justice project was funded by the IRC and Irish Human Rights and Equality Committee as part of the COALESCE project. European Centre for the Study of Hate members Professor Amanda Haynes (Department of Sociology) and Professor Jennifer Schweppe (School of Law) were PIs on the project, which was led by Travellers, including by Dr Sindy Joyce (European Centre for the Study of Hate and Department of Sociology). The project's ground-breaking findings provide, for the first time, a comprehensive, human rights-informed scientific study of Travellers' perceptions and experiences of the criminal justice system.

Following the publication of the project report, the team was invited to Áras an Uachtaráin to discuss the research with President Michael D. Higgins. The launch of the report was accompanied by extensive media coverage, including front page coverage on major broadsheet newspapers and national radio and television.



Professor Jennifer Schweppe (School of Law and European Centre for the Study of Hate) attended the 3rd meeting of the Council of Europe Committee of Experts on Hate Crime in Strasbourg on 30 and 31 March.

The team presented the findings of the research to the United Nations Committee on the Rights of the Child and the United Nations Human Rights Committee; the Council of Europe Advisory Committee to the Framework Convention on Minority Rights; the Council of Europe European Commission against Racism and Intolerance; and the EU Equality Data Subgroup. Nationally, the findings were presented to the Joint Oireachtas Committee on Key Issues affecting the Traveller Community; the annual meeting of District Court Judges; An Garda Síochána; Garda Ombudsman; the Policing Authority; the Steering Committee of the National Traveller and Roma Inclusion Strategy (NTRIS), chaired by Roderic O'Gorman TD, Minister for Children, Equality, Disability, Integration and Youth; and the Criminal Justice Sectoral Strategy at the Department of Justice. The report's findings were cited by the State in the Framework Convention for the Protection of National Minorities Fifth Periodic Report.

Since the report was published, Professor Haynes, Professor Schweppe, Dr Joyce and the Hon Ms Justice Mary Rose Gearty of the High Court of Ireland co-authored an article based on the recommendations to inform judicial training. Published in the *Judicial Studies Institute Journal* and entitled 'Irish Travellers' Access to Justice: Are You the Fairest of Them All?' (Gearty et al, 2024), the article documents that "Once the *Irish Travellers Access to Justice* report was published, it was sent to every judge undertaking the ethics training course or undergoing induction. This comprises the vast majority of judges in Ireland … Key quotations from the report and comments from its authors were highlighted in the training materials" (p114). The team's work also featured in the Police Custody in Ireland (ed. Yvonne Daly, Routledge, 2023). The project was shortlisted for a national Education Award and won the UL President's Impact Award.

In 2024, the Commissioner for Human Rights of the Council of Europe, Michael O'Flaherty, along with a delegation from his office, visited UL to discuss the findings of the research. The Joint Committee on Key Issues affecting the Traveller Community formally endorsed the recommendations in the report and reiterated key recommendations, including the introduction of an ethnic identifier throughout the criminal justice process and the development of a Department of Justice strategy to improve trust in the justice system.



L-R: Amanda Haynes, Sindy Joyce, Olive O'Reilly, Margaret O'Brien and Jennifer Schweppe at the launch of the Irish Travellers Access to Justice report

MANCEPT workshops in political theory

With Seunghyun Song (Tilburg University) and Sergi Morales-Gálvez (University of València), Dr Andrew Shorten (Department of Politics and Public Administration) organised a workshop on 'New Directions in Linguistic Justice' for the annual MANCEPT Workshops in Political Theory, held at the University of Manchester in September 2024. Contributors presented new work on feminist linguistic justice, linguistic autonomy, multilingual deliberation, multilingual trust, linguistic solidarity, native speaker ideologies and language policy in Ireland.

Dr Shorten presented a paper to bring recent developments in democratic theory into dialogue with a longstanding debate on the problems and potential of multilingual democracy. Specifically, the paper compared four linguistic mediation strategies (*lingua franca*, translation and interpretation, passive multilingualism and institutional linguistic pluralism) according to whether they are likely to support (or frustrate) key democratic functions through a range of generic political practices (recognising, resisting, deliberating, representing, voting, joining and exiting).

Students experience European Council negotiations first-hand

On 8 and 9 April 2024, over 160 students met in Brussels to take part in ConSIMium – a European Council simulation experience. Over the two days, teams of six students from 27 EU countries stepped into the shoes of national representatives and role-played negotiations between the EU member states at four different levels.

The Irish team was coordinated by Professor Joachim Fischer, Centre for European Studies, UL. The six students were selected from Irish universities currently running European Studies degree programmes; in the case of UCD, where the BA European Studies has not yet reached its final year, a student of Law with French participated. The selection criteria stipulated by the Brussels organisers included academic merit, interest in EU affairs, gender balance, balanced geographical representation, and proficiency in at least two official EU languages. The selected students from Ireland were:

- Mairéad Butler, Year 4 BA in European Studies, TCD (Taoiseach)
- Julia Celej, Year 4 BA in European Studies, UCC (national expert, AI)
- Theodore Holmes, Year 2 double degree MA in European Studies, UL/Europa Universität Flensburg, Germany (Minister of State for Trade Promotion, Digital and Company Regulation)
- Gregor McCullagh-Travers, Year 4 BCL in Law with French, UCD (Ambassador, Permanent Representation of Ireland to the EU)
- Charlie McEvoy, Year 4 BA in European Studies, TCD (national expert, cybersecurity)
- Aoife Woods, Year 4 BA in European Studies, UL (journalist)

The team was accompanied by Dr Xosé Boan, Course Director, BA in European Studies at UL.

Culture Shocked! comics: A celebration of cultural diversity and intercultural awareness at UL

In October 2024, the Culture Shocked! comics, which celebrate cultural diversity and intercultural understanding, were made available as a permanent collection on campus. To offer a lasting reminder of the power of cultural exchange, the vibrant illustrations now adorn the walls of the Languages/Millstream Building and the entrance of the UL Global Office in the Main Building.

Led by Dr Florence Le Baron-Earle from the School of Modern Languages and Applied Linguistics, the Culture Shocked! project features 50 illustrations based on authentic testimonies of cultural misunderstandings, all presented with a touch of humour. This collaborative effort brought together UL staff and students, who shared personal anecdotes of intercultural encounters. The original artwork was created by a talented group of UL students and alumni: Julie Alquier, Megan Brophy, Edison Cai, Thomas Cunningham and Lakeisha Lazo.

In addition to the permanent collection, the illustrations are available as a printed zine and are used as a tool to raise intercultural awareness. The project plays a significant role in connecting the community, particularly international students, primary school pupils and incoming refugees. The comics help to foster understanding and empathy and bridge cultural gaps through shared humour and experiences.

The innovative project aligns in particular with **SDG 16: Peace, justice, and strong institutions**, as it promotes social cohesion and intercultural dialogue. It also supports **SDG 17: Partnerships for the goals**, as it highlights the collaborative effort between UL, students and staff to create a more inclusive community.

Experiential learning activity: Student field trip to Henry Street Garda Station

On Monday, 22 April 2024, LLM/MA in Human Rights in Criminal Justice students visited Henry Street Garda Station in Limerick city. The event was organised by Course Director Dr Ger Coffey, Associate Professor, School of Law. This interactive/experiential learning event included a briefing on the legislative functions of An Garda Síochána, the reception area, detention cells, interview rooms, Automated Fingerprint Identification System (AFIS), solicitor consultation room, medical consultation room, evidensier (intoxilyser testing) room and the exercise yard for suspects detained in custody.

Members of An Garda Síochána briefed students on aspects of their work, including the levels of specialised training for interviewing suspects in accordance with the Garda Síochána Interview Model (GSIM), harm reduction and safeguards policies for vulnerable persons through inter-agency collaborations, and the Garda Victims Liaison Office (GVLO). Students also received a briefing from members of the Armed Support Unit (ASU) on their various roles and responsibilities and were shown

the personal equipment carried by members as well as the in-vehicle equipment. ASU members briefed students on their specialised training (including tactical and qualifications on administering medical aid), the use of reasonable force (using non-lethal and lethal resources) commensurate with the levels of threat posed by suspects, how to make a lawful entry to premises to execute search warrants in ongoing investigations into serious crime, and how to respond to firearms and critical incidents in support of the public and Garda colleagues.

The imperatives of human rights, transparency and accountability in compliance with the Garda Decision Making Model were emphasised throughout the interactive visit. In addition to contributing to **SDG 16: Peace, justice and strong institutions**, the learning event aligns with **SDG 4: Quality education**.

Advanced Lawyering 2 animal welfare project

As part of the Advanced Lawyering 2 module in spring of Year 4, Law Plus students opt to be involved in a group project or write a solo research article. In 2024, 17 students opted to take part in the Animal Welfare Project run by Dr Laura Donnellan and Dr Ger Coffey. The students individually researched and wrote an essay on an aspect of animal welfare in an EU member state.

The essays examined topics including:
- regulation of zoos in Bulgaria
- illegal puppy trade in the Czech Republic
- legal obligations regarding companion animals in Spain
- legal protection of fois gras under French law
- Italy's approach to animal welfare
- protection of animals under Dutch law
- chick culling in Germany
- religious slaughter under Belgian law
- Ireland's Animal Health and Welfare Act 2013
- animal protection under the German Constitution
- German law on animal experimentation
- criminalisation of bestiality in Denmark
- legal status of animals in divorce proceedings in Spain
- regulation of animal welfare and horseracing in Ireland
- farm animal welfare in Ireland
- legal protections for cats and dogs in Sweden

The students worked in groups to produce and present an information booklet on an aspect of EU law and animal welfare. Emma Mullahy, Dylan Murphy, Louise Torpey and Emma Fitzgerald's brochure provides a valuable guide to the legal framework relating to the transport of farm animals in the EU. Lorcan Beirne, Sarah Kelly, Aoife Glennon, Fionn O'Brien and Aoife Donohue also focused on the transport of farm animals – their brochure takes the form of a practical guide to the rules relating to same. Ronan O'Sullivan, Patrick Boland, Susan McCarthy and Amber Stauch created an informative brochure on the fur-free Europe initiative. Anne-Marie Pierse, Derbhila Donnelly, Eve O'Sullivan and Jane Tupper's brochure focuses on cosmetic testing on animals in the EU, and the group created a user-friendly guide on the Cosmetics' Regulation. In addition to being visually stunning, the brochures deal with difficult areas of EU law in a succinct yet eloquent manner. As well as relating directly to **SDG 16: Peace, justice and strong institutions**, the Advanced Lawyering 2 module aligns with **SDG 15: Life on land**.

Voting advice app wins UL Citizens' Assembly award

Led by Dr Rory Costello of the Department of Politics and Public Administration (PPA), a voter engagement project was chosen by members of the public as one of the three winners at the 2024 UL Citizens' Assembly. Each winning project received an award of €10,000.

The voter engagement project will develop the already well-established voting advice application WhichCandidate.ie for the upcoming elections. The app enables people to compare their views on policy issues with those of the candidates running for election. In addition, the project will include the provision of workshops on elections to community groups around Limerick and beyond.

The goals of the project are to enhance public knowledge about policy issues and politics, increase turnout in elections, and foster greater connections between citizens and representatives. The project team includes Professor Maura Adshead, Head of Community Engagement at UL, and Jackie Condon, a graduate of PPA's successful CWELL community development programme.



"Fragrant Garden" concert (23 March 2024) Limerick Early Music Festival; (L to R) Zaki Chabi, Yonit Kosovske, HE Ambassador of Morocco Lahcen Mahraoui, Mustafa El Meknassi, Vanessa Paloma Elbaz, Wolodymyr Smishkewych

Limerick Early Music Festival

Dr Yonit Kosovske of the Irish World Academy co-directed the Limerick Early Music Festival, which was held on 20 to 23 March 2024. Spanning 1,000 years of music, diverse cultures and geographical areas from North Africa to Europe and with the theme of journeys, the festival celebrated music about travel, pilgrimage and transformation in events at Saint Mary's Cathedral, Saint Joseph's Church and the Milk Market. Enthusiastic audiences experienced historical and traditional repertoires performed by internationally renowned vocal soloists, instrumentalists and multiple choirs including Peregryne, Cantoral, Limerick Youth Choir, Cantette, Ancór, Saint Mary's Cathedral Choir, Sagittarius Hiberniensis, and Limerick School of Music Senior Choir.

The festival was pleased to welcome these distinguished guests: Ambassador of Morocco Dr Lahcen Mahraoui; Mr Gerald Mitchell, Mayor of the City and County of Limerick; Dr Loïc Guyon, Honorary Consul of France; and Mr Pat Breen, former Minister of State. Special thanks to those students and staff of the Irish World Academy who helped make the festival a success!

UL and GAA: A shared vision of excellence and community

UL reaffirmed its close relationship with the GAA in a celebration of the partnership at a fundraising breakfast in the Castletroy Park Hotel in November 2024. The event highlighted not only UL's remarkable athletic achievements but also the shared values of community, inclusion, leadership and excellence that connect the University and the GAA.

UL GAA is the largest club on campus and the second largest university GAA club in Ireland. The club has long been a vital hub for nurturing athletic talent while fostering a spirit of gender equality and unity. With over 1,600 members, 25 teams and a forward-thinking 'one club' model that ensures men's and women's teams receive equal support and resources, UL GAA reflects the core principles of equality that are central to the GAA ethos.

Hosted by UL Director of Marketing, Communications and Public Affairs Laura Ryan, the event tackled important issues such as the integration of the men's and women's associations. Speaking at the event, Acting President Professor Shane Kilcommins highlighted UL's long-standing relationship with the GAA and its shared commitment to sport and community. "GAA at University of Limerick is more than just sport; it is a unifying force. It is often said

that bitter rivals for club and county come together as one when they don the UL jersey. This spirit of unity and camaraderie is what makes our GAA club so special – and many will echo that in other institutions. We must cherish and protect that because it is a place where lifelong friendships are forged and where the values of teamwork, respect and perseverance are instilled."

UL's success within the GAA is evident in the University's unprecedented success record – 16 major championships in 2023/24. This is a credit to UL's 135-strong coaching staff, 65% of whom are students. Beyond the campus, UL's contribution to the wider GAA community is significant – 21 players were involved in the 2023 Munster Hurling Final and 19 in the U20 Hurling Final.

The fundraiser breakfast featured a compelling interview with GAA President Jarlath Burns, known for his forward-thinking vision and commitment to progression. Mr Burns highlighted the vital role universities like UL play in shaping the future of the GAA. "At its heart, the GAA is about more than sport; it's about building communities, fostering leadership and creating a sense of belonging. UL plays a vital role in shaping the next generation of leaders who will carry these values forward, on and off the pitch. UL's GAA club is a shining example of how sport can inspire excellence, not just in competition but in character."

The morning event shone a spotlight on UL's elite athletes, including Limerick hurler Colin Coughlan, Meath ladies football star Mary-Kate Lynch, Clare footballer Daniel Walsh and Waterford key camogie player Mairead O'Brien. Their achievements on the field highlight the role UL plays in preparing athletes to excel at the highest levels while pursuing academic excellence. UL GAA Development Officer Jason Coffey facilitated interviews with the players to showcase their experiences and achievements.

Giving Voice

Several conditions are necessary to effect change in communities, including trust, commitment, leadership, resourcing and – another key condition – sustainability. Ensuring the sustainability of community initiatives and projects is key to securing meaningful and long-term societal change. Sustainability is not easy to achieve. It requires inclusive collaboration, careful planning, ongoing commitment, unity of purpose and a shared vision. Development without consideration of sustainability leads to wasted resources and short-term wins.

Eileen Hoffler
Community Engagement Officer, UL Engage



17 PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

UL and Limerick City and County Council's Citizen Innovation Lab at UN Summit

The innovative work of the Citizen Innovation Lab (CIL), a collaboration between UL and Limerick City and County Council (LCCC), was highlighted at the 79th United Nations General Assembly Science Summit in New York in September 2024.

A team from UL and LCCC was invited to the summit to showcase the CIL's success in bringing citizens, researchers and local government together to drive innovative climate action. The CIL team participated in a session alongside representatives from the office of the UN Secretary General and the New York Civic Engagement Commission.

As part of the European Network of Living Labs (ENoLL), the CIL team joined an ENoLL delegation, which highlighted the work of European living labs working on climate action. Representing UL at the Science Summit were Dr Madeleine Lyes, Living Lab Coordinator, and Javier Burón García, Director of Fab Lab. They were joined by LCCC Climate Action Officer Kieran Reeves. During the summit, the team shared insights on CIL's ongoing projects, including:

1. **SMARTLAB:** A living lab project involving participants from 70 Limerick city buildings equipped with energy and environmental sensors
2. **Síolta Glasa:** A project that uses creative arts to engage communities in climate-related activities
3. **Clean Air Together Limerick City:** Run in partnership with the Environmental Protection Agency, a citizens' science project that recruited 400 participants to record local air quality
4. **City Studio:** A collaborative space where citizens, local government and UL use design to support Limerick's climate action plan

According to Dr Lyes, "The Citizen Innovation Lab exemplifies how local government, academia and citizens can come together to tackle climate challenges. At the Science Summit we were delighted to be able to take inspiration from living labs in other countries to further our mission of achieving a climate-neutral Limerick by 2050. The summit also reinforced our confidence in the high standards of our CIL projects." Kieran Reeves added, "We were thrilled to present the innovative work of the Citizen Innovation Lab at the UN General Assembly Science Summit. Our projects demonstrate the power of community engagement and creative collaboration in driving meaningful climate action."

While at the summit in New York, the team took the opportunity to visit the Permanent Mission of Ireland to the United Nations, where they met with Dónal Cronin, a Limerick native and Deputy Permanent Representative at the Irish Permanent Mission in New York.

Two UL researchers receive SFI Industry RD&I fellowships

Two UL researchers were awarded fellowships through the SFI Industry Research, Development and Innovation (RD&I) Fellowship Programme. Dr Amit Kumar and Dr Andrey Bezrukov, both from the Department of Chemical Sciences, were among 15 people awarded a total of €1.4 million by Minister for Further and Higher Education, Research, Innovation and Science Patrick O'Donovan TD. The SFI Industry RD&I Fellowship Programme supports the temporary placement in companies of academic researchers to conduct research across a variety of areas.

Dr Kumar will work with Analog Devices on his project, which will assess and improve polyimide for electrical insulation and optimise the thin-film production of polyimide to reduce coating variation, polyimide voiding, metal-polyimide interaction and post-cure profile.

Dr Berzukov will partner with NEG8 Carbon on the ChemiSorb project to develop advanced sorbent materials for use in carbon dioxide (CO^2) capture. To address the ongoing global climate crisis, we need to reduce atmospheric CO^2 levels by removing it directly from the air using direct air capture (DAC) technology. This process is challenging due to the extremely low CO^2 concentrations in the atmosphere – as low as 0.042%. To effectively capture CO^2 at such trace levels, the development of these materials is essential.

Examples of the other projects include:

- Conducting rapid medical diagnostics using a smart sensing interface
- Seeking sustainable alternatives to reducing the environmental impact of composites for renewable energy devices
- Accelerating the reduction of cement's carbon footprint
- Improving the detection of the small signalling particles that respond to cancer cells
- Developing a seaweed compound to improve the cosmetics and health product industry
- Developing and commercialising a load reduction device to reduce the cost of moorings for offshore wind platforms

— Exploring new sources or technologies to meet the future bandwidth requirements of networks in an energy-efficient manner

Welcoming the investment, Minister O'Donovan said, "I am delighted to announce the SFI Industry RD&I Fellowship Programme recipients, connecting academic researchers and industry partners to collaborate and mutually benefit from each other's invaluable knowledge and expertise. Academic-industry collaborations maximise the economic and societal impact of Irish State-funded research and resources and foster impactful innovation. I look forward to seeing the achievements that will shape the years ahead."

The collaborating industry partners will provide co-funding in excess of €1 million. The partners will benefit from the expertise of the fellowship researchers while the Fellows will be provided with an opportunity to be immersed into industry and gain relevant business knowledge and experience.

Dr Siobhan Roche, Director, Science for the Economy at SFI, said, "Science Foundation Ireland is really pleased to support these academia-industry connections. This funding supports colleagues in academia to bring their research knowledge and skills to an industry partner and work collaboratively on solutions to industry-informed challenges. The SFI Industry RD&I Fellowship Programme provides a unique opportunity for researchers, drives research excellence through knowledge exchange, and enhances the industry partners' competitive advantage."

Immanuel Darkwa chairs 2024 Canadian international conference on SDGs

Dr Immanuel Darkwa of the School of History and Geography was invited to chair the session entitled 'SDG Initiatives from Other Lands' at the Canadian International Conference Sustainable Development Goals 2024 in Toronto, Canada on 26 and 27 October. Dr Darkwa also presented a paper entitled 'Achieving the green deal locally: Developing context-induced innovation routines as a process tool for nature-based solutions: Case study Sesvete, Zagreb'.

In addition to contributing to **SDG 17: Partnerships for the goals**, the conference aligned with **SDG 9: Industry, innovation and infrastructure** and **SDG 11: Sustainable cities and communities**.

Healthy Campus evaluation toolkit

In late 2023, the HEA sought expressions of interest for the development of an evaluation (process and outcomes) toolkit to support the Healthy Campus Charter and Framework. The toolkit would support institutions, at a local level, to implement and evaluate the Healthy Campus Charter and Framework, including stages 3, 4 and 5 of the Healthy Campus process.

In collaboration with colleagues from UCC, UL, Munster Technological University and international experts from the UK, Belgium and Canada, a project team led by Professor Catherine Darker and colleagues from TCD were successful in their bid and demonstrated excellent inter-institutional collaboration. With funding of €50,000, the team developed a tool following consultation with stakeholders in person and through a wider survey.

The HEA Healthy Campus Self-Evaluation Tool was launched on Tuesday, 12 November 2024 at TCD. As well as including presentations on the tool, the launch included high-level updates on Healthy Campus initiatives and an interactive workshop with 11 institutions. The event was a celebration of the project's collaborative approach and its aim of supporting institutions to self-assess their work in relation to student and staff health and wellbeing and highlight areas for improvement. The tool is supported by a resource repository to help institutions on their journey to creating a healthier campus environment. The Healthy Campus Self-Evaluation Tool accounts for important policies and frameworks that are relevant to HEIs, including the National Student Mental Health and Suicide Prevention Framework, HEA System Performance Framework 2023-2028, Irish Human Rights and Equality Commission Act 2014, and ESD to 2023: Second National Strategy on Education for Sustainable Development. Also included in the tool are references to the Ending Sexual Violence and Harassment in Higher Education Institutions Implementation Plan 2022-2024 and National Access Plan 2022-2028.

International Health Promoting Campuses Conference 2025

In June 2025, UL will host the International Health Promoting Campuses (IHPC) Conference. Highlighting UL's leadership in health promotion, this global event will bring together experts and policymakers to explore strategies for healthier

campus environments. Aligned with Healthy UL and UL's role in shaping national health initiatives, the conference will showcase UL's commitment to wellbeing and sustainability. Over 500 delegates, including representatives from the global arm of WHO, UNESCO and IUPHE, esteemed keynote speakers and HEI presidents from several continents, will come to UL to learn more about effective health promotion within the HEI context. The conference will not only put UL on the map for its commitment and efforts in this space but will also provide it with a platform to foster international collaboration and drive meaningful, lasting change in health promotion across educational institutions worldwide.

The IHPC Conference will mark the 10th anniversary of the creation of the Okanagan Charter, an international charter for health promoting universities and colleges. A key theme of the 2025 conference is the renewal of the charter, and vital research on this task is already underway by the Healthy UL team to assess the currency and relevance of the charter a decade after its creation.

Healthy UL supports population health and sustainable health systems through evidence-based interventions. Its programme of work aligns with **SDG 3: Good health and well-being**, **SDG 4: Quality education**, **SDG 10: Reduced inequalities** and **SDG 11: Sustainable cities and communities**. In the coming years, Healthy UL aims to expand its research, strengthen international partnerships and continue to influence health policy. The programme will focus on translating research into practice, ensuring that evidence-based interventions benefit both the UL community and society at large.

Researchers find connection between loneliness and dementia

A groundbreaking new study involving UL found that loneliness can predict a future risk of dementia. Involving 608,561 people worldwide, the international study found that loneliness appears to predict future dementia, Alzheimer's disease, vascular dementia and cognitive impairment. Published in the world-leading Nature Mental Health journal, the research sheds new light on the future health impact of loneliness.

After following the participants over time, the research gave rise to new longitudinal data spanning several continents. The results suggest that higher levels of loneliness appear to lead to an increased risk of dementia in the future. Specifically, the researchers found that feeling lonely increases the risk for dementia by 31% and the risk for cognitive impairment by 15%.

This is the most comprehensive study to date to indicate that loneliness is linked to dementia. According to research team member Dr Páraic S. Ó Súilleabháin, Associate Professor of Psychology in the Department of Psychology, the impact of the research is considerable. "These are very important findings and indicate that loneliness is a critically important risk factor in the future development of dementia. It provides a solid basis for future intervention work and adds to other research we have conducted examining the effect of loneliness on future health."

Dr Ó Súilleabháin, who is Director of the Personality, Individual Differences and Biobehavioural Health Laboratory and member of the Health Research Institute at UL, explained, "Our laboratory has found that loneliness is critical to future health in a variety of different ways, including our longevity – i.e., how long we live. This huge and incredibly thorough study now adds a huge piece of the puzzle why this is the case. That is, loneliness is critically important for cognitive health, in that loneliness leads to the future development of dementia, vascular dementia, Alzheimer's disease and more general cognitive impairment. This is a very important piece of research which will have far reaching consequences."

Supported by the National Institute on Aging, the study was led by Dr Martina Luchetti from the College of Medicine at Florida State University. In addition to Dr Ó Súilleabháin at UL, the work was conducted in collaboration with others from Florida State University, the University of Geneva, Wenzhou Medical University and the University of Montpellier.



Dr Páraic S. Ó Súilleabháin, Associate Professor of Psychology in the Department of Psychology, who contributed to the study

Young European Research Universities Network (YERUN)

Founded in 2016, YERUN brings together 22 like-minded universities with the primary objective of raising the voice of young research-led universities in Europe. This is achieved through dedicated strategic representation and lobbying and by maximising opportunities to collaborate in areas of mutual interest and benefit. UL joined the network in 2020 and is privileged to be included in this cluster of universities. Being part of the network means that UL engages in joint lobbying initiatives in Europe, which fosters knowledge exchange and spearheads collaborative projects.

UL has actively engaged in several initiatives with YERUN during 2023/24. A dedicated UL steering group, chaired by the YERUN Coordinator in UL Global, meets bi-monthly. The group members sit on various YERUN working groups and share updates on important themes, including open science, lifelong learning, European universities alliances, European mobility, sustainable development, research careers, rankings, and collaborative efforts among the network's research offices.

In March 2024, two UL researchers were recognised at the YERUN European Open Science Awards. Professor Aedín Culhane, Professor of Cancer Genomics, and Dr Maria Doyle, Bioconductor Community Manager, who are both based at UL's School of Medicine, won an Open Science Award for their work on the Bioconductor project. These awards highlight individuals or teams within the network that have demonstrated a commitment to advancing open science principles, practices and collaborations.

The YERUN General Assembly brings together the 22 members twice per academic year at a member university. The 2024 assembly took place at Paris Dauphine University in March. Representing UL were Professor Nigel Healey, Vice President Global and Community Engagement and Caitriona Conway, Interim Director, UL Global and institutional coordinator for YERUN. The assembly brings together the rectors, presidents and institutional coordinators and covers a range of topics, including updates on YERUN's work in Brussels, discussions on the new collaborative YERUN research platform, planning for the network's 10th anniversary in 2025, and the formation of the next YERUN Strategy 2026-2030.

Launched in February 2024, the YERUN Annual Report 2023 features details of EULAB, an Erasmus+ project led by UL. EULAB brings together blended mobility, innovative pedagogies and the green transition.

UL-Queen's study highlights how all-island approach to data sharing can help save lives.

A 2024 study involving UL researchers highlights how a collaborative data science approach is revolutionising cancer research across the island of Ireland. Led by Professor Mark Lawler from Queen's University Belfast and Professor Aedín Culhane from UL, the research is part of the All-Island eHealth Hub for Cancer, which aims to link health data across Ireland to improve cancer care.

Cancer is the leading cause of death on the island, with half of all citizens expected to be affected at some stage in their lifetime. The ageing population is also expected to double in the next 25 years, which will further increase the demand for effective cancer care. The All-Island eHealth Hub for Cancer seeks to address these challenges by building data platforms that use international open science standards to unlock and share health data. This collaborative effort aims to grow clinical cancer research and enhance treatment strategies.

The study demonstrated that effective data sharing, coupled with the use of digital health expertise and computer code, is crucial for identifying new diagnostic methods and targeted treatments for cancer. The researchers have already shown that precision medicines, which target specific tumour features, can be more cost-effective and provide better outcomes than traditional treatments. This approach is especially valuable in financially strained health systems.

Professor Mark Lawler, Professor of Digital Health at Queen's University Belfast and co-lead of the North-South Research Programme's eHealth Hub for Cancer, explained that data sharing, a practice facilitated during the COVID-19 pandemic, is essential for cancer research. He emphasised that the collaborative, patient-centred ethos that emerged during the pandemic is now transforming cancer research by making data more accessible and enabling innovative treatments.

Professor Aedín Culhane, Professor of Cancer Genomics at UL and co-lead of the eHealth Hub for Cancer, further highlighted the importance of open science and data sharing. She stressed that pooling data across different institutions and regions helps break down research silos and leads to more impactful studies and better treatment options. By using a networked data analysis approach, researchers ensure that data privacy and security are maintained while enabling cross-border collaboration. This approach is expected to deepen our understanding of cancer and improve personalised treatments for patients.

HEA CEO Dr Alan Wall praised the publication of the study and commended the eHealth Hub's collaborative culture. He expressed confidence that the Hub would lead to cancer research sustainable innovations that would benefit patients, researchers and clinicians alike.

The All-Island eHealth Hub for Cancer's data-sharing approach is set to revolutionise cancer care and offer new insights into and treatments for the future of cancer patients across the island of Ireland.

SASE annual conference 2024 hosted by KBS

KBS hosted the Society for the Advancement of Socio-Economics (SASE) annual conference at UL from 26 to 29 June 2024. Attracting over 1,500 delegates from more than 60 countries and with an estimated value of €3 million to the local economy, the conference was the largest event of its kind to be held in the region.

Delegates came from countries including Argentina, Australia, Japan, South Africa and many others. Previous SASE conferences had been held in cities such as New York, Kyoto and Rio de Janeiro. Focusing on the theme 'Disrupting Neoliberalism', the Limerick conference explored how work, technology, economic systems and cultural lives are influenced by global forces. Topics covered included the impact of decent work and the role of multinational corporations in shaping sustainable, equitable employment.

Conference organiser Professor Tony Dundon noted that the aim of the conference aligned with UL's research focus on societal issues, including working towards a fairer world of work and social justice. KBS Dean Professor Finbarr Murphy emphasised the conference's significance in showcasing the global reach and scholarship of UL.

Karen Ronan, General Manager of the Shannon Region Conference and Sports Bureau, highlighted the significant economic benefits the conference brought to the local hospitality and tourism sectors. Each delegate was estimated to have contributed €1,883 to the local economy. A special feature of the conference was a dedicated day for early-career and new researchers, which offered them additional support and networking opportunities.

UL-led European University Alliance receives European Commission approval for funding

In 2024, a UL-led European University Alliance application was approved for funding by the European Commission under the European University Initiative (EUI). The EUI is a transnational alliance of HEIs that collaborate to develop long-term structural and strategic cooperation with a view to promoting European values and transforming the European Higher Education Area.

UL is the coordinator of the EMERGE (Empowering the Margins of Europe through Regional and Global Engagement) Consortium, which comprises nine universities on the edge of Europe. On behalf of the steering committee, Professor Nigel Healey, Vice President Global and Community Engagement, welcomed the approval of the EMERGE application for funding. "This development is significant, because the EUI is one of the European Commission's flagship programmes. The Irish Government has made a commitment to financially support Irish members of European university alliances, and the EUI is one of the six pillars in its Global Citizens 2030 strategy for international higher education. All the Irish universities are now members of an alliance, with UL becoming the second to coordinate or lead a European alliance.

Professor Healey added, "The purpose of the consortium is to increase inclusion and engagement from and in the European periphery to create a model of excellence in teaching, learning and research involving our students, staff and the wider community. It aims to produce a transformational and sustainable educational capability that enables a personalised educational journey for students and equips them to tackle global challenges."

According to the EU Commission, 14 new European university alliances would join the 50 previously selected alliances, with each to receive up to €14.4 million over a period of four years. The European university alliances bring together a new generation

of Europeans and enable them to study and work in different European countries, in different languages, and across sectors and academic disciplines. Students can obtain a high-level degree by combining studies in several European countries, thereby contributing to the international attractiveness and competitiveness of Europe's higher education. The alliances also bring innovation to Europe's regions by allowing students to work together with academics, researchers, enterprises, cities, authorities and civil society organisations. The 64 alliances span 35 countries, including all EU member states and Albania, Bosnia and Herzegovina, Iceland, Montenegro, the Republic of North-Macedonia, Norway, Serbia and Türkiye.

The nine EMERGE Consortium members are UL; Universidade da Coruña, Spain; Université Rennes 2 and Université Bretagne Sud, France; Inland Norway University of Applied Sciences; Univerzita Mateja Bela v Banskej Bystrici, Slovakia; Europa-Universität Flensburg, Germany; Neapolis University Pafos, Cyprus and Democritus University of Thrace, Greece. The consortium members have been working together since 2019, and a memorandum of understanding was signed by the universities in late 2022.

UL becomes first regional base for NiteLine peer support service

In early 2024, UL became the first university outside of Dublin to officially affiliate with NiteLine, a late-night peer support and listening service run by and for students. This marked a significant expansion for NiteLine, whose confidential services were previously available only in the greater Dublin area. The move gave more than 150,000 students, including those at UL and affiliate colleges, access to the service.

NiteLine is operated by student volunteers from several Irish HEIs, including UL. Volunteers undergo a rigorous training and screening programme based on the Samaritans model, which prepares them to offer non-judgemental listening, support and information during late-night shifts.

The expansion of NiteLine to Limerick was made possible on foot of a successful funding application by UL, delivered in partnership with the Irish Youth Foundation, to the VHI Health and Wellbeing Fund. The fund supports projects that help young people manage anxiety and build resilience. With this support, NiteLine established a satellite office at UL and began recruiting and training local student volunteers during the summer of 2024. With support from Healthy UL, UL Student Volunteering and Student Life, the volunteering service was rolled out at UL in September 2024. The service integrates with campus life through information stands, outreach events and mental health workshops aimed at encouraging help-seeking behaviour and promoting student wellbeing.

The arrival of NiteLine in the mid-west not only expands access for UL students but also fosters a blossoming community of trained peer listeners across the country. Trained UL volunteers now join their Dublin counterparts in operating late-night shifts to take calls from students across Ireland. This collaborative model ensures consistent service delivery while cultivating cross-campus solidarity.

NiteLine's expansion was part of a broader initiative known as Project Bloom, which aimed to ensure that every third-level student in Ireland would one day have access to an empathetic peer listener, regardless of their location or institution. The experience at UL provides a valuable framework for future rollouts and proves that student demand for mental health support extends well beyond Dublin.

The partnership between UL and NiteLine is underpinned by strong institutional support. Academic staff members, student representatives and campus wellbeing staff play vital roles in embedding the service within UL's student support infrastructure. The successful launch demonstrated what is possible when universities, students and funding bodies work together to prioritise mental health.

Looking ahead, NiteLine plans to consolidate its presence in both Dublin and Limerick while exploring further expansion opportunities nationwide. With continued interest from other colleges and growing volunteer engagement, the service is on course to realise its long-term vision: a nationwide network of peer-led mental health support that is accessible to every student in higher education.

Startup Mania: Student entrepreneurship and innovation bootcamp for Transition Year students

From 22 to 24 October 2024, 28 enterprising students from Thomond Community College, Coláiste Nano Nagle and Coláiste Iósaef participated in the Startup Mania Bootcamp held at UL's Nexus Innovation Centre. The bootcamp became a launch pad from which second-level students could explore their entrepreneurial potential and mindset; consider new career paths; and develop future-ready creativity, teamwork and leadership skills that will push them beyond their comfort zones.

Organised through collaboration between KBS, the Nexus Innovation Centre and the UL Access Office, Startup Mania offered students the tools to think and act like entrepreneurs and innovators. With guidance from mentors, participation in workshops and exposure to real-life entrepreneur guest speakers, students tackled topics such as design thinking, problem framing, market validation and sustainability. Together, they learned not only to see challenges as opportunities but to act with the kind of initiative and leadership skills needed to thrive in any career – whether as future founders or as proactive, entrepreneurial thinkers in any role they pursue.

Each day was a new adventure: from idea generation to role-playing and pitch practice, the bootcamp showcased a dynamic mix of activities and the thrill of building something from the ground up while developing critical teamwork skills. Students engaged in practical exercises on how to integrate sustainability into entrepreneurial thinking through the leadership of Elisa Minoue, UL's Student Sustainability Coordinator. In addition, they connected with entrepreneurs Louise Egan (Founder of I-SPY Clothing) and received mentorship from seasoned educators and industry leaders, such as Ben Kiely Fitzgerald of KBS andaProfessor Ita Richardson of Lero. They also got a taste of university life as UL Access shared insights on alternative entry pathways to higher education, including the HEAR Scheme and Access to University Course, both of which are designed to support students from underrepresented backgrounds.

On the final day, students presented their sustainable business concepts in a high-energy pitch competition. Judges Sorcha Pendergrast (UL Access Office), Myles Kingston (KBS) and Finbar Tuohy (Local Enterprise Office Clare) were impressed by the energy, originality and real-world viability behind the students' pitches. Winners walked away with prizes, but every participant gained something invaluable: the confidence to lead, to innovate and to reimagine what's possible.

Startup Mania continues to redefine how students see their potential; it shows them that they are more than students – they are future innovators, with the potential to turn problems into meaningful ventures and create positive change in their communities and beyond.

Student-led Sustainability

Re-launch of UL Student Sustainability Team

In December 2024, the Centre for Sustainable Futures and Innovation proudly announced the official re-launch of the UL Student Sustainability Team. This dedicated team of student volunteers is committed to promoting sustainability within the UL community. Meeting bi-monthly, the team will initially work on projects assigned by the Student Sustainability Coordinator and over time will have the opportunity to share their own ideas for workshops, events and initiatives.

Through volunteer-driven projects and sustainability initiatives, students can actively contribute to making UL a more sustainable campus. The re-launch of the UL Student Sustainability Team addresses the need for greater student engagement in such initiatives. By providing a structured platform for students to collaborate on sustainability projects, UL aims to foster a culture of environmental stewardship and social responsibility among its student body.

We look forward to what the team offers to the student body in the years to come.

Student-led Sustainability Workshops and Summits

Youth-led sustainability workshop: Shaping tomorrow's future

On 18 April 2024, a vibrant collaboration unfolded at UL as students from Thomond Community College joined forces with UL's Access Office for an immersive sustainability workshop. Led by Student Sustainability Coordinator Jack O'Connor, the event aimed to ignite a passion for sustainability among the visiting students and equip them with the tools to enact positive change within their school.

Throughout the workshop, Jack emphasised the pivotal role of youth engagement in driving sustainability initiatives. He underscored the importance of amplifying the voices of young people and recognising their unique perspectives as catalysts for transformative action within their communities.

During interactive sessions, the students delved into a sustainability project design exercise, pooling their ideas and creativity to envision practical solutions for enhancing sustainability at their school. By fostering a collaborative environment where every voice was valued, the workshop nurtured a sense of ownership and empowerment among the participants. This inclusive approach ensured that sustainability initiatives resonated authentically with the needs and aspirations of those connected to Thomond Community College. By harnessing the collective ingenuity of young minds, the workshop sparked innovative thinking and inspired a shared commitment to addressing sustainability challenges head-on.

Giving Voice

Sustainability is not just about ethics, it's about long-term resilience. A crucial step toward building a sustainable future is equipping investors with the knowledge they need to assess the environmental and social impact of their investments. In an era of climate crises and social inequalities, financial systems must evolve to be part of the solution, not the problem.

Keelan McMahon
PhD student in Sustainable Finance at KBS

Impact Rankings



UL Sustainability Rankings

University of Limerick jumps to 61st in impact rankings of over 1,900 universities worldwide.

UL was also ranked second in Ireland and is the only Irish institution to improve its position year on year in the new Times Higher Education (THE) Impact Rankings, which were announced in June 2024.

The rankings are a global performance benchmark which measure the positive societal impact the university is having in contributing to the United Nations Sustainable Development Goals (UN SDGs).

UL is ranked 61 out of the 1,963 universities surveyed, a jump of 25 places compared to last year when it was ranked 86 out of 1,591 universities.

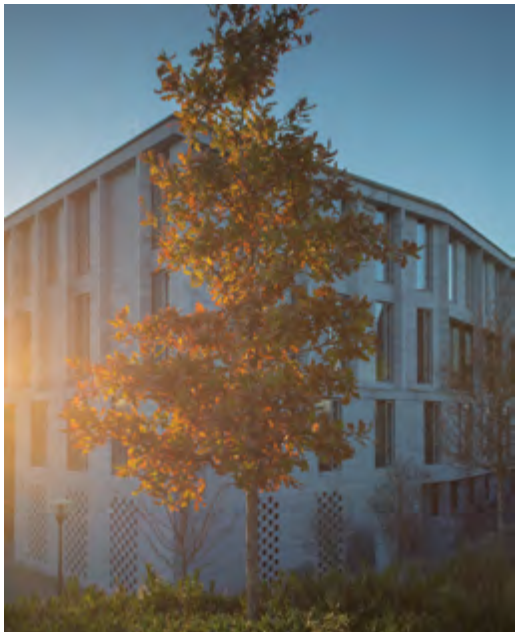
This is the sixth year of the THE Impact Rankings which examine a university's performance across teaching, research, equality, internal culture, and the impact it has in the wider society.

UL is ranked in the top 50 in the world in three of the individual SDGs:

- **SDG 10: Reduced Inequalities** ranked 21. This highlights the university's research on social inequalities, its policies on discrimination and commitment to recruiting staff and students from under-represented groups.
- **SDG 11: Sustainable Cities and Communities** ranked 23. This goal examines the role of a university in sustaining and preserving the heritage of communities.
- **SDG 8: Decent Work and Economic Growth** ranked 49. This goal evaluates an institution's economic research, employment practices and the share of students taking work placements, and good employment practices.

A further five goals see UL in the top 100 universities for impact. **SDG 1: No Poverty**; **SDG 5: Gender Equality**; **SDG 7: Affordable and Clean Energy**; **SDG 12: Responsible Consumption and Production** and **SDG 16: Peace, Justice and Strong Institutions**.

In addition, UL is ranked first in Ireland for **SDG 5: Gender Equality**; **SDG 8: Decent Work and Economic Growth**; **SDG 10: Reduced Inequalities** and **SDG 11: Sustainable Cities and Communities**.





Welcoming the new rankings UL Provost and Deputy President Professor Shane Kilcommins said: *"Rising to 61st place globally and second in Ireland in the Times Higher Impact Rankings is a powerful affirmation of University of Limerick's unwavering dedication to making a positive societal impact.*

"We are continuing our rise through the rankings, and this comes on foot of another recent positive move for UL. Our identity as a research-led institution is deeply intertwined with our commitment to the UN Sustainable Development Goals and this remarkable 25-place jump reflects the collective efforts of our entire community—from innovative teaching and pioneering research to our steadfast dedication to equality and fostering inclusivity.

"UL is growing and continuing to learn and take that growth for a positive good. Our progress is not just measured in rankings but in the tangible benefits we deliver to wider society, demonstrating that at UL, we are truly committed on making a difference."

Professor Norelee Kennedy, UL Vice President Research added: *"This is another example of how UL staff are working for a better society for all. The rankings are a positive reflection of how UL takes its responsibility to sustainable development regionally, nationally and internationally.*

"These results reflect our ambition of providing an environment where we value creativity, curiosity and excellence and are committed to social good. Our research strategy Wisdom for Action is aligned to the UN Sustainable Development Goals, allowing our research to have maximum impact on our society. These results show that this alignment strategy is paying off."

The improvement in UL's place in the Impact Rankings comes just a week after the university rose to 421 in the QS World University Rankings, which reflects the commitment of staff to research and teaching excellence.

Giving Voice

UL's long-standing and meaningful commitment to sustainability spans our research, our education programmes and our campus activities. Having achieved Green Campus accreditation in 2015, UL's ranking of 86th in the world in the THE Impact Rankings 2023 and 22nd in the world in the UI GreenMetric rankings reflect the significant progress UL has made in sustainability practices in recent years. The University's external partnerships and collaborations with leading local, national and international organisations and its ongoing engagement from staff, students and stakeholders across campus are enabling UL to make significant contributions towards addressing the world's sustainability goals.

Eileen O'Connor
Research Metrics and Reporting Officer

University Impact Rankings 2024

Times Higher Education (THE) – SDG Ranking Breakdown

SDG	UL
OVERALL RESULT	**61**
SDG 1: **No Poverty**	100
SDG 3: **Good Health and Wellbeing**	201-300
SDG 5: **Gender Equality**	60
SDG 7: **Affordable and Clean Energy**	80
SDG 8: **Decent Work and Economic Growth**	49
SDG 10: **Reduced Inequalities**	21
SDG 11: **Sustainable Cities and Communities**	23
SDG 12: **Responsible Consumption and Production**	66
SDG 16: **Peace, Justice and Strong Institutions**	76
SDG 17: **Partnership for the Goals**	101-200

Sustainability is the defining value that shapes our **identity**, our **strategy** & our **daily practice**.



www.ul.ie/**sustainability**

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SUSTAINABLE DEVELOPMENT GOALS

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