

# Making a Difference

DCU's Annual Impact Review





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Cover photo: Mark Pollock and Jennifer Hess  
at the launch of DCU Exoskeleton Programme

# Introduction

**Universities play a unique role in society. Not only do they create and disseminate knowledge and attract and develop talent, but many are also driven by important social values. The concept of the 'Ivory Tower' university is an anachronism in today's world. Nowadays, it is typical for universities to engage actively with communities in their region, their nation and, indeed, across the globe.**

The knowledge they create and the talent and commitment of their students and staff often lead to significant benefits to citizens in many parts of society. At DCU, we are very explicit about this. Our mission is 'to transform lives and societies through education, research, innovation and engagement'. Bringing beneficial impact to individuals and communities is central to the DNA of DCU!

I am delighted to introduce the first Annual Impact Review for DCU. This review, which captures snapshots of the University's impact across many dimensions over the period mid-2018 to mid-2019, avoids the typical key performance indicators (KPIs) of academic success (publications, citations, research income etc.), and focuses solely on lives and communities impacted beneficially by the activities of DCU students and staff.

In developing a narrative for the University's impact, it became clear that the UN Sustainable Development Goals (SDGs) provide a very useful lens through which to view the various dimensions of DCU's activities.

The 17 UN SDGs (listed together with their symbols in the diagram on the facing page), which were developed and agreed to by 194 nation states and which came into force in January 2016, provide an internationally recognised framework for tracking progress towards sustainable development. The particular relevance of the UN SDGs to DCU was highlighted at a day-long workshop (organised by Dr Rob Gillanders and Dr Róisín Lyons, both of DCU Business School) in May 2019 where presentations from 17 DCU academic staff members described impressive activities at DCU across all 17 SDGs. This framework was therefore chosen for this review.

I wish to congratulate and thank everyone at DCU whose work is highlighted in this review. My thanks go to DCU alumna Dr Claire O'Connell for her expertise and commitment in authoring the review, to Aisling McKenna, Celine Heffernan and Tom Swift for their work in sourcing and checking information and to the DCU Marketing team, particularly Marie Leahy, Katy Halpin and Deirdre Wynter, for producing this document.



**Prof. Brian MacCraith**  
**President, Dublin City University**



# SUSTAINABLE DEVELOPMENT GOALS

**1** NO POVERTY



**2** ZERO HUNGER



**3** GOOD HEALTH AND WELL-BEING



**4** QUALITY EDUCATION



**5** GENDER EQUALITY



**6** CLEAN WATER AND SANITATION



**7** AFFORDABLE AND CLEAN ENERGY



**8** DECENT WORK AND ECONOMIC GROWTH



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



**10** REDUCED INEQUALITIES



**11** SUSTAINABLE CITIES AND COMMUNITIES



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



**13** CLIMATE ACTION



**14** LIFE BELOW WATER



**15** LIFE ON LAND



**16** PEACE, JUSTICE AND STRONG INSTITUTIONS



**17** PARTNERSHIPS FOR THE GOALS



DCU Making a Difference in...

# Health & Well-Being

Ensuring healthy lives and promoting well-being for all is essential for sustainable development.

Researchers across the DCU community are making a difference in areas including cancer, sepsis, blindness, dermatitis, physical literacy and mental health.







The intervention aims to improve children's physical literacy (physical competence + motivation to be active + confidence to be active) in a holistic manner and to give them the skills they need to be active for life."

DCU PhD student in the Moving Well – Being Well Project, Stephen Behan.

## 'Moving Well – Being Well' gets kids in Ireland moving

A big part of being healthy is keeping physically active, but DCU research with 2,000 children in 44 primary schools in Ireland tells us that many children in primary school in Ireland are falling behind on fundamental movement skills: one in four children could not run or catch proficiently, fewer than half could jump or kick properly and only 16% could throw a ball overhand properly.

Based on those findings, the Moving Well – Being Well research team, led by Dr Johann Issartel, Dr Sarahjane Belton and Professor Noel O'Connor, designed an intervention to improve these skills, and delivered it in a pilot study involving more than 500 children and their teachers in 11 primary schools. The pilot finished in 2019.

The Moving Well – Being Well project is the largest of its kind in the world, and is run by the Insight Centre for Data Analytics in DCU and DCU School of Human Health and Performance with the support of Dublin GAA and the GAA Research and Games Centre. The study has already trained 18 Dublin GAA coaches to deliver the Moving Well – Being Well intervention to more than 1000 children across 20 schools in the Dublin region.

"We want to ensure that children get every chance to develop fundamental movement skills throughout childhood and adolescence, so they feel confident and interested in being physically active," says Stephen Behan, who works on the project with fellow PhD students Cameron Peers and Nathan Gavigan.

# 1,500

In the last year, more than 1500 school-age children in Ireland have taken part in the Moving Well-Being Well study to improve their physical skills and confidence

## SepTec – Speeding up diagnosis to save patients with sepsis

Every few seconds, someone dies of sepsis, making it one of the most lethal medical conditions in the world. Sepsis is an equal opportunity killer, there is no one sign and symptoms present differently between adults and children

A result of blood infection, sepsis represents 30% of all hospital-based deaths, and 8-9 million patients died of it in 2018. Getting a rapid diagnosis and an appropriate antibiotic can be the difference between life and death, but the current methods of diagnosis are either slow (taking up to several days) or costly.

Enter SepTec, a new technology being developed by researchers at DCU to rapidly and cost-effectively diagnose patients with specific sepsis pathogens directly from a whole blood sample in minutes instead of days. The aim is to deliver information about the underlying infection in 15 minutes, thereby potentially saving millions of lives each year.

SepTec, which involves DCU, Beaumont Hospital, St. James's Hospital and Cleveland Clinic, has won numerous awards, and in 2019 was announced among the final six contenders for the €1million Science Foundation Ireland (SFI) Future Innovator Prize, a challenge-based competition for researchers to develop new approaches to issues facing Irish society.



DCU researchers Dr Elaine Spain and Dr Kellie Adamson are developing SepTec, a rapid test for sepsis causing pathogens that could save millions of lives each year.



Professor Christine Loscher

## Relief from eczema with seaweed power

The itch of atopic dermatitis (otherwise known as eczema) is a common problem, particularly in young children and babies. It is also an issue for many animals, including horses and dogs.

Steroid creams can relieve the itch, but long-term use of topical steroids can thin the skin. Professor Christine Loscher from DCU School of Biotechnology has discovered a molecule in seaweed that specifically calms the inflammatory part of the immune system that underlies flare-ups of eczema.

In recent pre-clinical tests, a cream containing the molecule performed as well as conventional over-the-counter steroids, which is a major step towards approving the newly discovered molecule for use in humans and for veterinary practice.

"We have shown that our molecule is safe and effective, and the added benefit is that we don't see the skin-thinning effects," says Professor Loscher. "The next steps will involve extensive clinical trials as we move towards the market."





Mr William Power, Consultant Ophthalmic Surgeon Royal Victoria Eye and Ear Hospital Dublin, examines patient Patrick Godfrey who underwent a procedure on his eye enabled by research at DCU.

## An eye to improving sight with cultured corneas

In April 2019, Dr Finbarr O'Sullivan received the President's Award for Innovation in the Academic and Research Category for his pioneering research on stem cells and the cornea (the clear dome of tissue on the eye).

The health of the cornea on the front surface of the eye is essential for vision, and damage to the cornea is a major cause of blindness worldwide.

Dr O'Sullivan and colleagues from the National Institute for Cellular Biotechnology (NICB) at DCU, the Irish Blood Transfusion Board (which is the National Eye Bank) and the Royal Victoria Eye and Ear Hospital Dublin developed a procedure to take stem cells from a part of the eye called the limbus and use them to grow cornea tissue in the lab. This tissue could then be used to surgically replace damaged corneal tissue in a patient's eye.

In 2016, Mr William Power, Consultant Ophthalmic Surgeon at the Eye and Ear, performed the first cornea-limbal stem cell transplant in Ireland, carrying out the hour-long operation on Patrick Godfrey of Co. Tipperary. To date, the procedure has been carried out around a dozen times in Ireland since then.

## Breast cancer treatment developed at DCU enters clinical trials

An new drug combination developed at DCU's National Institute for Cellular Biotechnology (NICB) to treat breast cancer has entered Phase 1 of clinical trials. The new regime is designed to treat women with the HER-2 positive breast cancer subtype where the cancer has spread beyond the breast.

HER2-positive breast cancer accounts for approximately 560 of the 2,500 new breast cancer cases diagnosed in Ireland each year.

Ireland is the first country to assess the new combination in women with metastatic HER2-positive breast cancer. The trials are the culmination of many years of work by researchers based in the NICB, including Dr Norma O'Donovan, supported by the Cancer Clinical Research Trust, The Caroline Foundation and BreastPredict.

The resulting trial is supported by U.S.-based biopharmaceutical firm Puma Biotechnology and led by Professor John Crown of St. Vincent's University Hospital, who was recently re-appointed as the Thomas Baldwin Chair of Translational Medicine at DCU.

# 55

Patient and public involvement (PPI) means carrying out research with or by members of the public rather than to, about or for them.

The DCU PPI Ignite project is designed to improve PPI in health and social care research. Between June 2018 and June 2019, DCU PPI provided training and capacity building for 55 members of the public and 78 researchers, students, clinicians or policy leaders.



Research at NICB is enabling new trials for breast cancer treatments



Facebook COO Sheryl Sandberg visiting DCU to speak about anti-bullying and online safety training

## Facebook and DCU bring anti-bullying and online safety training into schools

In January 2019, Facebook announced funding of €1 million to support DCU's National Anti-Bullying Research Centre to offer evidence-based anti-bullying and online safety training to teachers, children and parents in Ireland. To mark the occasion, Facebook COO Sheryl Sandberg visited DCU St Patrick's Campus and spoke to teachers who were taking part in the training.

"The programme funded by Facebook is called FUSE as we are trying to bring together children, parents and teachers to increase their understanding and capacity to tackle bullying and online safety issues," explains Professor James O'Higgins Norman, Director of the DCU Anti-Bullying Centre and UNESCO Chair on Tackling Bullying in Schools and Cyberspace.

FUSE will also work with Spunout.ie to deliver the training in every post-primary school in Ireland over a three-year period. Already between January and June of 2019, the DCU Anti-Bullying Centre has piloted the programme in 21 schools in Dublin, with the support of the Drumcondra Education Centre.

"Bullying and online safety are huge issues that affect young people, and through this programme we have already built awareness in hundreds of secondary school students of how to recognise and address those issues," says FUSE project manager Darran Heaney. "Widening out from the pilot study, we will reach tens of thousands of students with a research-based and tested programme."

## DCU Sport promotes activity and fitness in the local community

DCU Sport provides a valuable service for boosting physical activity in the local and wider community of Dublin through first class facilities and service through its professional team, including year-round gym membership and coaching. During term-time the Active for Life programme welcomes around 150 older people per weekday to take part in fitness classes, and the pool sees a similar number of children aged 4-12 each week learning to swim. In the summer, around 1,000 children take part in structured summer camps on the DCU campus.

DCU plays a vital role in supporting sporting organisations beyond the University, giving €200,000 per year in kind for pitches and gym space to Na Fianna, Drumcondra FC, DCU Mercy and DCU Saints. At present, eight Dublin squads use the DCU Sport facilities.

# 150

The number of older people taking part in DCU's Active for Life sporting programme per weekday

# €200,000

The amount DCU Sport gives in kind each year to local sporting organisations for gym and pitch space

## DCU Exoskeleton programme takes steps to the future

DCU's Exoskeleton Programme is enabling people who have reduced mobility due to paralysis to use the Ekso Bionics exoskeleton, Ekso GT. This exoskeleton is a wearable robotic device that can help a person to walk, or it can 'walk' for a person who has no ability to walk themselves.

The free, physiotherapist-led programme at DCU allows people affected by paralysis to complete sessions of supported walking with the exoskeleton, facilitated by a trained handler. In this way they can experience the benefits that regular walking in an exoskeleton provides for people with spinal cord injury, stroke, multiple sclerosis and other neurological conditions.

The system was created by US company Ekso Bionics, who have worked with Mark Pollock to test components for the next-generation exoskeleton. Pollock, who was paralysed in 2010, is regarded as the world's leading test pilot for Ekso Bionic robotic legs and to date has taken over 1.5 million steps in the device. He is collaborating with DCU on the Exoskeleton Programme.

Making the exoskeleton available to people who could benefit from it will also help to improve the understanding of how the system can help people: the DCU Exoskeleton Programme is carrying out research on how best to use the exoskeleton to deliver maximum benefits.

"Using exoskeleton technology, we are incorporating experts from DCU in health, body systems, biomechanics and engineering to maximise and improve service users' mobility, health and quality of life," says Ronan Langan, Clinical Lead of the DCU Exoskeleton Programme. "And, by combining these disciplines and our team's extensive knowledge of neurological injury and neurorehabilitation, we aim to make a meaningful impact into the research of better therapies for paralysis now and into the future."



Dr Colm Costigan, a paediatric consultant, lost the use of his legs due to spinal damage following a cardiac arrest. He has been finding his feet again through the DCU Exoskeleton Programme.

“My first time using the Exoskeleton was surreal. The suit got me to my feet, but I couldn’t find my balance at all. Since that first session, my balance has improved tenfold and my muscle recovery is also improving with every session. I wouldn’t be where I am today without the DCU Exoskeleton Programme. After just six sessions walking in the suit I’m able to stand straight and walk a reasonable distance with my crutches. I hope that I can return to fully completing my rounds in the hospitals as soon as possible, which I know would never be possible if it wasn’t for my sessions walking in the exoskeleton.”



Dr Colm Costigan

Hugh Smith suffered a spinal cord injury in motorcycle-and-sidecar racing accident and is now paralysed from the waist down. His competitive spirit and the DCU Exoskeleton Programme are helping him on his journey of rehabilitation. “Although I’ve only had six sessions walking in the exoskeleton suit, I can already notice the difference.

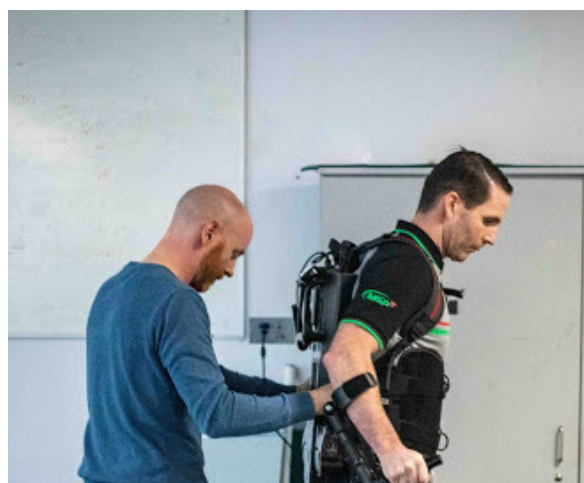
Before beginning the programme, I didn’t have any sensation in either of my legs. Now, I can flicker both my quad muscles due to my muscle memory improving. The DCU Exoskeleton Programme has given me a new lease of life. I’m a very competitive person, so when I see my number of steps increasing week on week I’m always eager to get back into the suit and try and beat my previous best.”



Deirdre Heffernan

A rare illness resulted in Deirdre Heffernan relying on a wheelchair, and this has affected her ability to live independently. She describes how the DCU Exoskeleton Programme has been helping her to rebuild her strength and confidence.

“Although it wasn’t my first time walking since becoming ill, it was the first time walking for a long period of time. I felt physically exhausted but exhilarated after that first session. I’ve since completed 16 sessions walking in the Exoskeleton, and I’ve become much more physically and mentally stronger. I am so thankful for the opportunity to access the Exoskeleton.”



Ronan Langan and Hugh Smith



DCU Making a Difference in...

# Fairer, Safer, More Inclusive Societies

Gender equality, fair policies, accountability and access to justice for all are foundations for a peaceful, prosperous and sustainable world.

The DCU community is enabling more diverse, inclusive and representative workplaces and organisations, and strengthening the fairness and safety of societies.



## Guidance to support returning to work after parental leave

In September 2018, the Harvard Business Review published a study by Professor David Collings, Dr Yseult Freeney and Dr Lisa van der Werff from DCU Business School, that identified issues and opportunities around returning to work after maternity or parental leave.

The study involved a survey of over 300 women on maternity leave and on their return, as well as in-depth interviews with women who had returned to work, their line managers and senior HR leaders at 28 large organisations across numerous sectors.

The findings led the DCU researchers to outline several pieces of guidance for organisations, including positioning maternity leave as a brief interlude rather than a major disruption, enabling clear communication about needs and offering phased return plans and mentoring programmes.

“Our research on maternity leave has resonated strongly within industry and we have been invited into organisations across the private and public sector to help them shape new initiatives aimed at supporting returning parents,” says Dr Freeney.

“Many of our recommendations are not costly and yet they have been described as ‘eye-opening’. We are aware that in some public and corporate organisations in Ireland, the report has been shared with line managers and women embarking on this transition, and this has sparked valuable conversations that would not have happened were it not for this research.”

## Driving change in workplace diversity and inclusion

June 2018 saw the launch of the DCU Centre for Excellence in Diversity and Inclusion. The first centre of its kind in Ireland, it works with organisations to provide evidence-based approaches to diversity and inclusion (D&I) in the workplace.

The Centre conducts industry-based research and develops D&I toolkits for companies in the financial, engineering, legal and aviation sectors. It is currently developing software that supports the transformation of Organisational Culture through the power of AI and data analytics.



At the launch of the DCU Centre for Excellence in Diversity and Inclusion



The first DCU Ability group to complete the programme

## DCU Ability creates new pathways for young people with disabilities

In December 2018, the Minister of State for Disability Issues, Finian McGrath TD, launched DCU Ability, a programme that promotes the employability of young people with disabilities to gain the skills, competencies and experiences needed to be career-ready.

Through the initiative, a partnership between DCU and St. Michael's House is using a person-centred approach to create meaningful and tailored pathways into education, training and employability for young people with disabilities.

In early 2019, a pilot group of six students completed the 13-week course which included career preparation, work experience, personal and interpersonal skills, personal effectiveness and health and safety in the workplace. These students are now able to move ahead with confidence to work placements across DCU and partner companies.

35



35 students have completed the DCU Ability course

19

DCU Ability has worked with 19 employers



## 30% Club: Supporting women in leadership

DCU encourages women in leadership through its 30% Club Scholarships, which each year support women to study for Master's degrees in DCU Business School and the Faculty of Engineering and Computing. The scholarships are given in partnership with the 30% Club, an international organisation that aims to increase female representation on boards.

Scholarship recipient Marianne Doyle, who works in education communications and marketing, believes that doing the Executive MBA Programme at DCU Business School will develop her leadership skills and her contributions to boards. "As you rise up through the ranks of leadership in organisations, you can have a great impact on other people's lives," she says. "I want to be the best leader I can be, and in turn support others."

Another DCU 30% Scholar, Emer O Farrell, is studying for a Masters in Computing (Software Engineering). "I picked this programme because I knew I wanted to move into a software development role and wanted to expand on the foundations of what I had learned in my undergraduate degree," she says. "I read about the modules available and these seemed to resonate with what I was looking for in a masters programme. Without the 30% Club scholarship I would not have been able to embark on this journey at the present time."



Dr Jane Suiter

## Supporting entrepreneurship skills in women in Saudi Arabia

As a lecturer at the Princess Nourah bint Abdulrahman University in Riyadh, Dr Roisin Lyons from DCU Business School is teaching women in Saudi Arabia about innovation and empowering them to build their entrepreneurial skills.

The academic year 2018/2019 saw approximately 100 female fourth-year students take the New Enterprise Development module. Of those, around 40 students presented their work to a mixed audience of industry experts and the public.

"For some of these women, it may be their first opportunity to present in front of a mixed audience, and they do so brilliantly," says Dr Lyons, who has been delivering entrepreneurship education to women at PNU for three years.

## DCU academic honoured for Irish Citizens' Assembly role

In March 2019, Dr Jane Suiter was announced as a recipient of the Brown Democracy Medal for her role in the Irish Citizens' Assembly Project, an initiative that has transformed Irish politics over the last decade and was a precursor to referendums on abortion access and marriage equality.

Dr Suiter is an Associate Professor at DCU's School of Communications and co-founded the Citizens' Assembly Project in 2011 with Professor David Farrell from University College Dublin. Both are recipients of the 2019 Brown medal, which honours work done to advance democracy.



# 600,000

The approximate number of social media impressions generated by Operation Barracuda



## National emergency responders learn from simulated terrorist attack at DCU

On a Friday evening in November, 2018, DCU hosted Operation Barracuda, a simulated terrorist attack and the largest ever inter-agency exercise in response to a mass casualty attack ever undertaken by the State.

The exercise, which unfolded quickly, involved actors, the Garda, Defence Forces, Dublin Fire Brigade, the National Ambulance Service and local DCU emergency responders, explains Declan Raftery, Chief Operations Officer at DCU. "This was an opportunity for all the emergency services at a national level to test their response to a complex and fast-evolving terrorist situation and to better understand the complexities of co-ordinating such a response," he says.



Operation Barracuda allowed emergency services to test the response to a simulated terrorist attack





Dr Vicky Conway

## Police reform recommendations

As a member of the Commission on the Future of Policing in Ireland, DCU academic Dr Vicky Conway, of the DCU School of Law and Government, contributed to its September 2018 report.

The Commission proposed sweeping reform of policing in Ireland, focusing on the prevention of harm, and recommended a new approach to policing and community safety, which will ensure police are more visible in communities.

In January 2019, Dr Conway returned to the Policing Authority, the agency that oversees the performance of An Garda Síochána. She was appointed by Minister for Justice & Equality, Charlie Flanagan, TD.

In 2019, the European Commission approved Dr Robert Gillanders as Ireland's main anti-corruption expert for an EU-wide network reporting to the Directorate-General for Migration and Home Affairs.

Dr Gillanders, an Assistant Professor of Economics at DCU Business School, is now responsible for providing analysis to the European Commission on Ireland's corruption risks and anti-corruption policy and practice.

# 137

In 2018/2019, the DCU Brexit Institute continued to shape and inform policy, media and public narratives around the UK's withdrawal from the European Union.

As well as producing 137 academic publications, 120 blog articles, two books, 14 working papers and one European Parliament report, the Institute held 13 high-profile events in Dublin and other European capitals to explore the implications of Brexit across various sectors.

## Training for fair treatment of suspects

A wrongful arrest or abuse of rights during detention in police custody can have a devastating impact on a person's life. Dr Yvonne Daly and Dr Vicky Conway from DCU School of Law and Government have developed and delivered innovative, skills-based training to criminal defence solicitors on their role in advising and representing clients detained in police custody.

This training programme, known as "SUPRALAT" (Strengthening suspects' rights in pre-trial proceedings through practice-oriented training for lawyers) was developed as part of an EU-funded project in 2017 and is now delivered in conjunction with the Law Society of Ireland Finuas Skillnet, a solicitor-training network. In the year from June 2018 to May 2019, the programme was delivered to 36 solicitors from all around Ireland and 14 from Scotland.

DCU Making a Difference in...

# A Quality Education For All

Equality, a quality education and economic growth are central to improving people's lives and sustainable development.

DCU is ensuring that more people can access and benefit from high-quality education and training, thereby transforming lives and societies



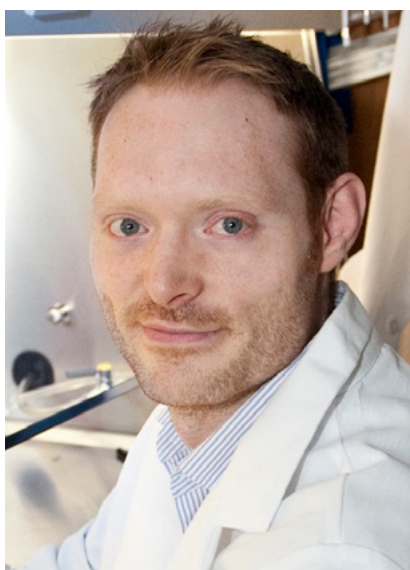
## DCU Access leads to success

DCU's Access programme enables students from economically disadvantaged backgrounds to study at DCU. It is the oldest and largest programme of its kind in Ireland.

DCU Access graduates have gone on to work in a variety of professional sectors around the world. They include Dr David Dowling, PhD, who graduated from DCU with a BSc in Biotechnology in 2005 and a PhD in immunology in 2009.

Dr Dowling is now a researcher at Harvard Medical School and Boston Children's Hospital. His work focuses on developing novel vaccines for vulnerable populations. In 2019 he was announced as the Principal Investigator of a \$9.2 million National Institutes of Health-funded project to develop new vaccine strategies against seasonal influenza that could help better immunise the very young and the elderly.

Also this year, Dr Dowling is co-leading a \$2.3 million pilot project funded by the National Institutes of Health to develop a vaccine to protect adolescents and youths with opioid use disorder against an accidental overdose with fentanyl, a potentially lethal substance present in many opioid drugs.



Dr David Dowling, PhD

# 1,261

The number of students supported by the DCU Access programme in 2018/2019

The retention rate from first to second year of DCU Access students is very close to that of all Irish students at DCU and sometimes exceeds it, according to a 2019 report.

# 50

The number of DCU Access students who benefitted during the summer 2019 break from the new Access to the Workplace Programme to support high-quality work experience in 35 partner companies.

## Homelessness and education – evidence for action

Children who are homeless face particular challenges in education. In 2018, the Children's Rights Alliance commissioned Dr Geraldine Scanlon and Grainne McKenna from the DCU Institute of Education to complete 'Home Works: A Study on the Educational Needs of Children Experiencing Homelessness and Living in Emergency Accommodation.'

The report highlighted issues such as poor diet, sleep disruption, long and expensive journeys to and from school and the importance of school for stability. The findings received significant interest from local and national media, and continue to inform public and political debate on the effects of family homelessness on children's educational access and participation.

In April 2019, the report's recommendations were presented in a Dáil Éireann Private Members Motion: Educational Supports for Children Experiencing Homelessness. This compelled the Minister for Education and Skills to consider the additional needs of children who are homeless in the Action Plan for Education and the Statement of Strategy 2019-2021 of the Department of Education and Skills.

"It's encouraging to see how quickly some of our recommendations from the report are being implemented," says Dr Scanlon. "For example, I was in attendance at the Oireachtas Committee for Family and Youth Affairs and on the basis of seeing how difficult it was for homeless families to afford transport, we recommended that the free Leap Card scheme for public transport be extended to homeless families in Dublin in August. That has been put into place."

# 411

The number of teachers nominated from across Ireland for their transformative impact through the DCU-led Teachers Inspire Ireland. Launched in May 2019, this is the first major initiative in Ireland to celebrate the transformative role of teachers and the enormous contribution they make in Irish society.

Professor Mathias Urban, Desmond Chair in Early Childhood Education at DCU, led the development of a policy brief for the Japanese presidency of the T20/G20 in 2019. The focus was on early childhood in the context of the Sustainable Development Goals and whole-systems approaches to reform.



The MELLIE storytelling project resulted in a photographic exhibition during the DCU ANAM Festival

## MELLIE puts Direct Provision in the picture

The MELLIE (Migrant English Language, Literacy and Intercultural Education) storytelling project paired people living in Direct Provision with student and staff volunteers at DCU and invited participants to each share a picture that tells a story about their lives. The resulting photographic exhibition, which featured many images of life in Direct Provision, took place during the DCU ANAM Festival in April 2019. The artistic collaboration enabled residents in Direct Provision to learn about Ireland and Irish culture while improving their English. Meanwhile the DCU volunteers met and learned more about people who have moved to Ireland to seek asylum. MELLIE is one of the DCU University of Sanctuary suite of initiatives, which create a welcoming environment for asylum seekers and refugees seeking education.

## DCU inspires others to adopt the Autism-Friendly approach

In 2018, DCU was designated the world's first Autism-Friendly university. Working with the Autism advocacy organisation AsIAM, DCU put in place a whole-campus approach that includes training, awareness and quiet zones, as well as supports to help people with communication, information processing, finding their way around the campus and securing internships and employment.

Throughout 2018 and into 2019, the DCU initiative has inspired several other organisations to examine and adopt Autism-Friendly principles. They include Cork University Hospital, The National College of Ireland and William Carey University in Mississippi, United States.

"It is exciting to see the ripple effect of DCU's designation as an Autism-Friendly University," says Dr Mary Rose Sweeney from DCU School of Nursing and Human Sciences, who worked on the study with DCU colleague Professor Teresa Burke, AsIAM and Specialisterne Ireland. "It is now being taken up in other educational institutions, and translating beyond the academic setting into the hospital setting."

Cork University Hospital, which has started to adopt the principles, states: "Following discussions with Dublin City University, the benefits of this project were acknowledged and CUH identified becoming an Autism-Friendly Hospital as a priority. The hospital anticipates that the service users and their families will greatly benefit from this initiative."

# 56

The number of universities now in the global Age Friendly University Network, led and founded by DCU in 2012 to promote the concept of universities being agents of healthy and active ageing in their regions.



## Bringing creative storytelling into the classroom

For many years, DCU and the community creative writing programme Fighting Words have had a strong relationship, with DCU students and staff volunteering to help run sessions with schoolchildren to ignite their imaginations around storytelling. In September 2018, that partnership was formalised and Dr Orla Lehane is now based in DCU to bring the Fighting Words model further into mainstream education. "Because of our work with student teachers in DCU, the Fighting Words model is now being brought into school classrooms in Ireland," she says.

## Write to Read

In May 2019, the Write to Read literacy project was announced as an awardee of the Social Innovation Fund Ireland 'Engage and Educate' initiative. Write to Read was inspired by DCU Institute of Education academic Dr Eithne Kennedy's research showing how teacher development, high-quality books and a literacy framework could improve reading outcomes for schoolchildren. With support from Deutsche Bank, Write to Read now works with 13 disadvantaged schools in Dublin city, benefitting more than 2,800 children.

## CTYI offers school students a taste of university studies

In 2018/2019, 343 secondary school students attended the Early University Entrance Programme at the DCU-led Centre for Talented Youth, learning about various topics such as Business, Law & Politics, Mathematical Science, Engineering and Psychology. In August 2018, six secondary school students from Ireland travelled to Arizona, stayed with host families and took classes at the Herberger Institute at Arizona State University. The following January, five students from Herberger visited DCU to attend CTYI's Early University Entrance Programme.

## Opening up physics to a wider audience

In November 2018, DCU researcher Dr Eilish McLoughlin was awarded the Lise Meitner Medal and Prize by the Institute of Physics (UK and Ireland) for her leadership of large-scale national initiatives that widen participation in physics in Ireland through formal and informal actions.

Dr McLoughlin is an Associate Professor and Director of CASTeL, the Centre for Advancement of STEM Teaching and Learning at DCU and is involved in:

- Physics Busking - demonstrates engaging physics experiments to around 120,000 members of the public each year
- Science on Stage – supports Irish science teachers taking part in biennial European Science on Stage teaching festivals and dissemination to about 1000 science teachers each year
- Improving Gender Balance - takes a whole-school approach to supporting students, particularly girls, in making informed and unbiased choices around physics, and is conducted in collaboration with 28 second- level schools



Dr Eilish McLoughlin



# 6,100

In 2018/2019, 6,100 School students attended classes at the Centre for Talented Youth in Ireland.

# 10,000

In December 2018, Microsoft Ireland partnered with DCU for Hour of Code, which enabled more than 450 final year student teachers to introduce a world of coding to an additional 10,000 primary school students.

## Guiding the way to STEM

How can we conserve water and use it sustainably? Those are big questions, and they were superbly answered in November 2018 by around 250 Brownies from Meath, Louth, Cavan, Monaghan and Cork.

The girls worked in teams for several weeks to research water sustainability and they used LEGO Robotics to come up with innovative ways to preserve water, presenting their projects at an event in DCU. The initiative was a project of Irish Girl Guides Innovatively Engaging with STEM (IGGIES), a partnership with Dublin City University's Learnit Lego Education, sponsored by Science Foundation Ireland.

# Making a Difference

(June 2018 - June 2019)

1,261

DCU students from socio-economically disadvantaged backgrounds supported in 2018/2019 by DCU's Access Programme



56



Universities worldwide now members of the DCU-founded Age-Friendly Universities Network

>1,500

Schoolchildren have taken part in a physical literacy project through DCU, Being Well, in 2018/2019



343

Secondary students participated in the Centre for Talented Youth in Ireland's Early University Entrance Programme at DCU in 2018/2019 to get a taste of university education



6,100

School students attended Centre for Talented Youth in Ireland classes in 2018/2019



10,000

Primary school students introduced to Microsoft's Hour of Code thanks to 450 final-year students in DCU



**€75  
million**



Total funds raised by 2019 via the DCU Educational Trust for Shaping the Future, a campaign launched in 2015 to support DCU projects that transform lives and societies.

**3**

Sensory pods installed to create quiet zones for students with autism on DCU campuses



**150**

The number of people who take part in DCU's Active for Life programme each weekday



**300**

Increase in digital economy jobs at the DCU Alpha Innovation campus

**15%**

The percentage of venture capital in Ireland that was raised by companies at the DCU Alpha Innovation Campus



By 2019



**15,000**

Public-facing workers and caregivers trained in dementia awareness through DCU's Dementia Elevator Programme

**1,000**

GPs who have availed of dementia awareness training developed through DCU



**2,800**

Primary school children in disadvantaged areas benefitting from the Write to Read literacy project



DCU Making a Difference in...

# Climate Action

Climate change is a global challenge that affects everyone, everywhere, and energy is central to nearly every major challenge and opportunity in the 21st century.

The DCU community is providing evidence and insights to update policy and practice for more sustainable life and societies on Earth.





## DCU research cited in landmark Climate Action Plan for Ireland

On Monday 17th June 2019, Taoiseach Leo Varadkar TD and the Minister for Communications, Climate Action and Environment Richard Bruton TD launched the landmark All of Government Climate Action Plan 2019.

The Plan singles out research by DCU academics that aims to contribute to a new model for citizen engagement on climate change.

The Citizens' Climate Research Project, funded by the Environmental Protection Agency, is being conducted at Dublin City University by Prof Pat Brereton (School of Communications), Dr Diarmuid Torney, Dr. Laura Devaney and Martha Coleman (School of Law and Government).

The project seeks to identify lessons from the climate change deliberations of Ireland's Citizens' Assembly for policymaking and citizen engagement on climate change, as well as producing new knowledge on Ireland's climate change governance.

## DCU staff and students contribute to local and national climate action plans

In the academic year 2018/2019, 13 students undertook the newly established MSc in Climate Change: Policy, Media and Society at DCU, which is Ireland's first and only social science-focused degree programme on climate change.

DCU Students and staff involved in the MSc made submissions to the public consultation on Dublin City Council's Draft Climate Action Plan and to the Irish Government's public consultation on Ireland's National Energy & Climate Plan 2021-2030.

The latter submission was built on the following guiding principles: Climate change should be placed at the centre of policymaking; Effective communication of climate change policies to the public is essential; Better indicators of progress are needed to measure and communicate progress on climate change goals to the wider public; Justice and equity should be central to Ireland's transition to a low carbon economy and society and Citizen participation should be central to shaping Ireland's low carbon transition.



## A better direction for lowering carbon in transport

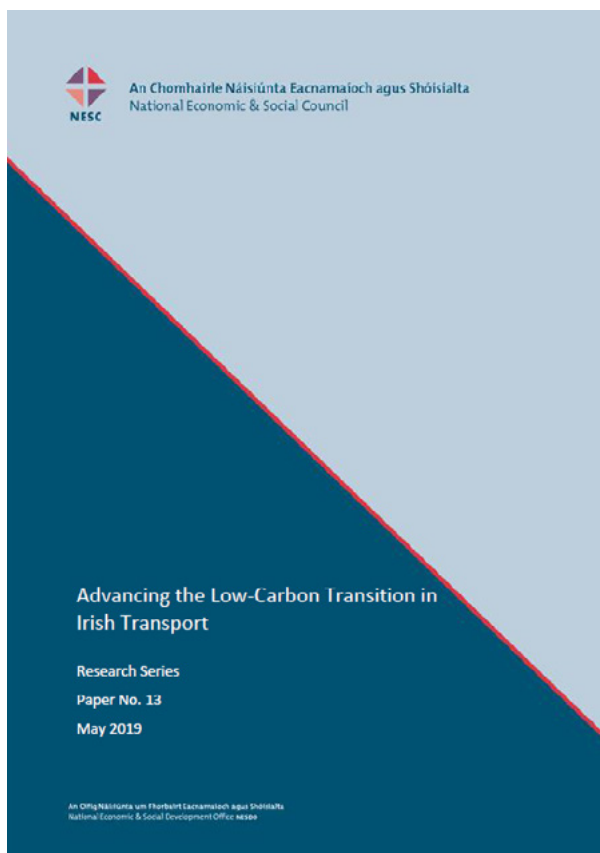
In June 2019, Dr Diarmuid Torney and Dr Laura Devaney from DCU School of Law and Government addressed the Joint Oireachtas Committee on Transport, Tourism and Sport about transitioning to low-carbon transport in Ireland.

The DCU academics presented their recent research, which has examined how changes in governance and policy can better facilitate the transition to low-carbon transport. They found the transport sector is fragmented and subject to tensions between public, private, urban and rural interests, and they recommend a more collaborative and engaged approach with communities learning from each other and the public sector leading by example.

## 8

Through its SEAI Better Energy Community Works Grant, DCU funded deep retrofits to eight energy-poor homes on the Northside of Dublin that the homeowners would not otherwise have been able to finance.

DCU also helped to support heating energy upgrades at the Head Office of St Michael's House in Ballymun, which provides a range of services to children and adults with an intellectual disability in the greater Dublin area. Again, the project would not have been feasible without the support of DCU.



DCU researchers are working towards a low-carbon future for transport in Ireland



Dr James Carton



## Mapping the future of hydrogen-fuelled transport in Ireland

Dr James Carton, Assistant Professor in Sustainable Energy in DCU School of Mechanical and Manufacturing Engineering is researching the application of hydrogen as a zero-carbon fuel for transport. Dr Carton is a member of the Hydrogen Task Force in the World Energy Council, developing energy policy and strategies for industry and governments. Dr Carton is a Hydrogen Taskforce Expert to the United Nations Economic Commission for Europe (UN-ECE) working to decarbonise the European gas grid.

Dr Carton recently helped a group of industrial players, including Toyota, Hyundai, Energia, BOC, Ervia and CIE, and public sector bodies, to develop a coordinated strategy report for the deployment of hydrogen mobility in Ireland. A Hydrogen Roadmap for Irish Transport 2020-2030 outlines how hydrogen-fuelled cars, buses and trucks could be a reality in Ireland by 2023, and highlights the potential for more than 15,000 hydrogen vehicles to be on roads in Ireland within a decade.

## DCU moves towards plastic-free

DCU's sustainability drive continues to advance towards the goal of the University becoming 'plastic-free' by 2020. This has already resulted in plastic cups and glasses being withdrawn from all campuses, as well as Takeaway coffee cups, single-use plastic takeaway containers, takeaway cutlery, straws and single-use plastic bags. The initiatives are the result of common drive by DCU and its Students' Union to create a more sustainable campus environment.

DCU Making a Difference in...

# Safe Water For All

Clean, accessible water for all is an essential part of the world we want to live in but it is under threat.

DCU is researching and engaging across society and industry to safeguard water now and into the future.





## DCU water-quality test delivers rapid results

When bathing water is contaminated with faecal matter (for example, from raw sewage), it can make the humans who swim in it, or use it for other recreational activities, sick.

One way to find out if water has been contaminated is to test for the presence of bacteria called *E. coli*. Typically, it takes a minimum of 48 hours for standard lab tests to furnish a result from a water sample but at this stage it is too late. Now, however, the DCU Water Institute has developed a more rapid test.

ColiSense can give an indication of *E. coli* levels in bathing water within an hour. It has recently been trialled with several local councils and organisations to monitor the quality of their local swimming or bathing recreational sites.

“There is a real operational need for this technology. We have worked with Fingal County Council where the ColiSense technology has been used to measure bathing water for *E. coli* along several beaches, including Lusk, Rush and Donabate,” says Ruth Clinton, Water Innovation Officer At DCU Water Institute. “We are also helping a local sailing organisation in Poolbeg to rapidly monitor the safety of the water there for use. People want answers quickly about water quality, and our technology can provide that.”



Seamus Walsh and Evelyn Cusack from Met Éireann at a DCU Water Institute event



The DCU Water Institute worked with ABP to assess new innovative wastewater processes, technologies and controls at the company's food processing plant in Cahir, Co Tipperary.

As a result, in 2019 ABP licensed new technology developed at DCU to improve process wastewater treatment efficiency. This includes ammonia removal techniques and sludge treatment from wastewater at the Cahir plant that have now been extended to other ABP wastewater treatment facilities.

"Such innovations are essential to ensure that resource consumption is as low as possible, and they are embedded within ABP's Doing More With Less resource efficiency programme," says John Durkan, Environmental and Sustainability Manager at ABP.



Kayakers, paddleboarders and other interested people in Leinster are becoming citizen scientists thanks to the BACKDROP project at DCU Water Institute.

They are collecting freshwater samples along the River Liffey for DCU researchers to monitor as part of FreshWater Watch, a global citizen scientist project investigating the health of the world's fresh water on a scale never seen before.

The global initiative is co-ordinated by Earthwatch in partnership with the Royal Bank of Canada.





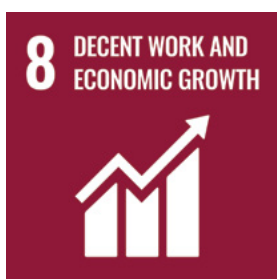
DCU Water Institute is encouraging citizen scientists to gather information about freshwater



DCU Making a Difference in...

# Smarter Futures

People drive the innovation that changes societies. DCU is enabling people with ideas and passion to change our futures, creating space and support and building a culture where innovation thrives.





## DCU innovation by numbers:

**5**

Companies were spun out of DCU in 2018

**15%**

The percentage of venture capital in Ireland between June 2018 and June 2019 that was raised by companies at the DCU Alpha Innovation Campus

**300**

The increase in digital economy jobs at the DCU Alpha Innovation campus between June 2018 and June 2019

**28**

Licences/options/agreements executed by DCU in 2018

## Talent Garden boosts innovation and co-working

In October 2018, Minister for Finance and Public Expenditure and Reform, Paschal Donohoe TD, opened Talent Garden Dublin, the latest facility in Europe's largest network of digital innovation hubs. Talent Garden Dublin is located in DCU Alpha, DCU's Innovation Campus. It is the first Innovation and Coworking Hub/University strategic partnership of its kind in the world and is designed specifically to service the needs of digital innovators based in Ireland.

## AmbiSense monitors gas

DCU spin-out AmbiSense, which is based in DCU Alpha, develops low-cost sensors and monitoring services to analyse gases, particularly in the oil and gas and waste management industries. Clients include Cemex, SGS and Tarmac. In 2019, venture-capital firm Suir Valley Ventures announced it was backing AmbiSense, partnering with Atlantic Bridge to raise €1.1 million, adding to investments of 1 million Euro previously secured by the DCU spin-out.





## DCU spin-out helps students build skills

When Lewize Crothers attended university as a mature student, she saw the need for a better way to highlight students' broad skills to potential employers. She found the expertise she needed at DCU Business School to help her develop that idea into an online platform that measures a person's skills and interests such as adaptability, resilience and enthusiasm and helps them to connect with suitable employers in the marketplace.

In summer 2019, she spun out the start-up Exit Entry from DCU. "We are enabling students at an early stage to identify and build those important skills and to find the kinds of employers early on that could suit them," says Crothers. "And by making it free for students, we are making the jobs marketplace more accessible for all."



Lewize Crothers





In June 2018, Madame Christine Lagarde, the Managing Director of the International Monetary Fund (IMF) toured DCU's Innovation Campus, DCU Alpha. Madame Lagarde met with representatives from a number of companies at DCU Alpha, including FIRE1, Robotify, Novaerus, Shimmer and Siemens.



DCU Making a Difference in...

# Student Impact

Our students at DCU are the lifeblood of future change. They are already making a difference through their entrepreneurship, volunteering and commitment to more sustainable, inclusive societies.



## Enactus – DCU students make a difference through social enterprise

The Enactus DCU society encourages students to build social enterprises. In October 2018, for the fifth time in seven years, Enactus DCU represented Ireland in the Enactus World Cup Finals, which were held in San José, Silicon Valley. DCU reached the semi-finals in this 35-nation social entrepreneurship competition with their projects Threads, Second Scoop and Giveback. Threads helps asylum seekers with the skills to upcycle old clothes, Second Scoop helps migrants integrate into Irish culture and society. Giveback enables online shoppers to donate in support of the homeless.

**Enactus DCU 2018/19 in numbers:**  
11,500 hours of volunteer work  
€58,600 - revenue generated  
435 – people impacted by the social enterprises

The Enactus DCU project DyslexE won the President's Award for Innovation (Student Category) in April 2019. This programme creates an online dyslexic-friendly environment to help people with dyslexia to read on digital device screens. It has been tested with DCU students who have dyslexia.

**"Each of these projects was created and developed by DCU students as part of their extra-curricular work, illustrating their true dedication to social engagement and to fostering their own abilities as social entrepreneurs." Dr Emer Ní Bhrádaigh, who established Enactus in DCU in 2011.**







James Gallagher Giveback.ie co-founder

## DCU student enables shoppers to 'give back' for homelessness

While an undergraduate student of Computer Applications at DCU, James Gallagher co-founded GiveBack.ie, an online platform that enables Irish consumers to help some of the most vulnerable people in society by simply shopping online.

Consumers download the software online, then as they shop at any of the more than 1,200 supported online retailers including Amazon and ASOS, they generate a donation to charities such as Inner City Helping Homeless. GiveBack.ie also works with the charity to offer a digital marketing upskilling and training programme for people at risk of homelessness.

The fledgling social enterprise benefitted from UStart, DCU's student start-up incubator, and Enactus DCU. In 2019 Giveback.ie was named as one of 15 winners in the Google.org Impact Challenge Awards and received €50,000.

**Second Scoop empowered five migrants from the Mosney Direct Provision Centre and integrated them into Irish culture and society through workshops and ice cream selling events. Four of the migrants have now entered further education and/or part-time employment.**

## Role models provide new perspectives for local schoolchildren

Role models are important for children, to inspire them to think about how their lives could be when they are older. At Aisling Project in Ballymun, DCU student volunteers help with the school aftercare clubs, and through activities as seemingly simple as playing football with the young children there, they embody a new perspective for them.

Mícheál Clear is Project Leader at Aisling Project, which provides a stable and secure after-school intervention with supported home-work and hot meals for around 140 children across five sites in Ballymun.

"We build relationships with the children as they go through their schooling, and we do a range of activities with them," he explains. "The DCU students come in as volunteers and they help us to provide positive, confidence-building activities for the children. That might be bringing them on a visit to the campus or organising a game of football, and it makes a huge difference to have them with us doing that. We can tell the children as much as we like about this great university on our doorstep and the opportunities there that they might not otherwise know about, but nothing beats these young, motivated DCU students coming in with a positive attitude and getting to know the children, interacting with them and being involved."

Seanie Germaine, who is studying Marketing, Innovation & Technology at DCU, spent time volunteering with Aisling Project through the DCU Raising and Giving Society. A hurler from Wicklow, Seanie put his sporting talents to good use organising and playing football with the children. Dublin GAA star Jonny Cooper, who works at DCU, presented medals at the end of the year, recalls Seanie.

"No act is too small and your efforts are valuable, even if it is only doing some GAA coaching to introduce kids to the sport and to new surroundings and possibilities at the university. Investing that time and attention in young people can mean a lot, and it can help the overall improvement of people's lives."



**Touchtech founders Niall Hogan and Shekinah Adewumi.**

## Student company acquired by Stripe

In April 2019, the online payments giant Stripe acquired Touchtech, a startup that emerged from DCU's student entrepreneurship programme, UStart, and which was scaled up at the DCU Alpha Innovation Campus in Glasnevin. Stripe, which was founded by Limerick brothers John and Patrick Collison, is valued at over €20 billion and is regarded as the fastest growing online payments company in the world. Touchtech Payments Ltd. was established in 2014, while co-founder Shekinah Adewumi was studying Mechatronic Engineering at DCU. It was one of the

first financial technology companies in Europe to develop a solution that uses biometric scanning to authenticate online payments.

## Sustainable cups on the go

Ireland uses a reported 200 million non-recyclable cups for takeaway coffees and teas each year, so DCU student Kevin Murphy founded a company called 2GoCup to make re-usable cups more user friendly. In 2018, 2GoCup began a pilot scheme called Co-Cup in partnership with DCU, Trinity College Dublin, Dublin City Council and other locations, where a customer pays a €1 deposit on a reusable coffee cup and the money is returned when they give the cup back. The pilot is funded by the Environmental Protection Agency. "It's fantastic to see such progressive steps taken to tackle single use cups," says Murphy. "We look forward to it continuing across our city and further afield."



**Launch of CoCup Deposit and Return Scheme in Dublin**



DCU Making a Difference in...

# Arts and Culture in the Community

DCU's strategic plan 2017-2022 puts an emphasis on developing arts, creativity and culture. We have continued to work at local, national and international levels to deepen the understanding and practice of the arts, to encourage artists and to engage with our local communities in cultural activities.

## DCU research enhances choral practice in Ireland

In January 2019, 120 choral practitioners (mostly conductors), took part in a free workshop on choir leadership led by DCU academics Dr Róisín Blunnie and Dr Sean Doherty. The participants benefitted from the insights of DCU research, which has shown that choir performance benefits from choir leaders or conductors preparing well and engaging with the physical processes of the choir.

“Our work has shown that if the conductor breathes with the choir and conducts with their hands held low rather than held high near the throat, then it reduces tension in the choir and it builds their confidence in the performance,” says Dr Blunnie. “This is the kind of insight that can transform a performance, and the workshop helped to bring that to the wider community of choral leaders in Ireland.”

Laetare Vocal Ensemble, a 40-strong choir led by Dr Blunnie, further translates her research in choral leadership and brings choir music to a broad audience through concert performances and international competitions. In 2018, they raised funds for Focus Ireland through a Christmas Concert, and tracks from their CD ‘In Circling Flight’ are frequently featured on Lyric FM.



Dr Róisín Blunnie and the Laetare Vocal Ensemble

## DCU at the New York City St Patrick's Day Parade

On St Patrick's Day 2019, DCU academics Dr Róisín Blunnie and Dr Sean Doherty and five DCU students travelled to New York City in support of Dr Brian O'Dwyer of DCU Council of Trustees, who was Grand Marshal of the parade.

In New York, the DCU Music Group performed Irish songs for an audience at St Patrick's Cathedral and then outside on Fifth Avenue for a broadcast by NBC. "We performed Danny Boy for the NBC cameras while standing on the street at the heart of the St Patrick's Day Parade," says Dr Blunnie. "We were proud to represent DCU, and to bring Irish culture to a much wider audience."

## Balbriggan school students get to groove with Berklee

In summer 2018, 39 secondary school students from Balbriggan's Loreto Secondary School and Ardgillan Community College got the chance to take part in the world-renowned Boston-based Berklee College of Music's Groove School programme. Over the three-day course, 100 participants on the programme learned about theory, ear training, improvisation, ensemble performance and instrumental instruction and took part in a performance. The initiative is part of the Balbriggan Socio-Economic Regeneration Strategy and was thanks to a partnership between Berklee, Fingal County Council and DCU.



DCU musicians at St Patrick's Cathedral New York

## DCU and the North Dublin Cultural Quarter

DCU is committed to collaborating with a broad range of stakeholders in our region in the establishment of a North Dublin Cultural Quarter, and in April 2019 held the second ANAM festival, a celebration of arts, ideas and creativity in North Dublin. Curated and produced by Philip King's South Wind Blows team, ANAM was supported by Fingal County Council, Fingal County Council, Dublin City Council, IMRO and Neogen.

Images from ANAM, celebrating arts, ideas and creativity





Inaugural DCU President's  
Research Impact Awards  
recognise benefits to society

# Research Impact Awards

May 2019 saw the introduction of a DCU President's Award to recognise the impact of the University's research that is transforming lives and societies.





## New President's Awards for Research Impact

The inaugural recipients were recognised for their pioneering work in changing how dementia care is delivered in Ireland and enabling rural communities to benefit from online tools to improve their businesses and quality of life.

The two awardees for 2019 are Professor Kate Irving, DCU School of Nursing and Human Sciences, for her research on building community and policy support for people with dementia, and Professor Regina Connolly, DCU Business School, for her research on reducing the Digital Divide in agricultural and rural communities.

## New mindsets for dementia: focus on prevention and societal support

In Ireland, around 55,000 people are living with a diagnosis of dementia, and this has a wider impact on their carers, family, friends and communities. Through her research, advocacy and community-based initiatives, Professor Kate Irving is changing dementia policy and practice in Ireland, putting a focus on delaying the symptoms, building stronger clinical and community support for those who are already experiencing dementia and including the voices and opinions of people with dementia in education and policy.

"A lot of the impact of my work has come through delivering education programmes, and those in turn are based on evidence that we have built up about the needs of people with dementia and the best ways to deliver education that supports those needs," says Professor Irving, who is based at DCU School of Nursing and Human Sciences. "We also appointed three people with dementia as co-researchers in evaluating the impact of the Dementia Skills Elevator. These individuals were paid for their work and meaningfully involved in the evaluation exercises of all aspects of the programme - for our research to have an impact on the people who need it, we need to involve people with dementia directly."

## A Snapshot of Professor Irving's Initiatives

### IN-MINDD:

Looked at lifestyle factors associated with the onset of dementia and helped to change the national discourse about the nature of dementia, putting greater focus on modifiable risk factors that need to be taken into account at policy level.

### Alzheimer's Café:

A support-group for people affected by dementia that now has 18 cafes across Ireland.

### MemoryWorks:

A community-facing support service for people who have been diagnosed with dementia. It is now incorporated into HSE practice and in the last year around 50 nurses have been developing their skills in post-diagnostic support.

### Dementia Elevator:

A multi-level programme to train people in the community such as police, and bank, transport and shop workers as well as clinicians and caregivers about communicating sensitively, supportively and appropriately with people who have dementia.

## Impact for Dementia



# 15,000

Public-facing workers and caregivers have received training in dementia awareness and support through Dementia Elevator

# 800

Dementia champions responsible for cascading training through health and social care professionals



# 1,000

GPs have engaged with Dementia Elevator via the Irish College of General Practitioners

## DCU helps Dementia Champion to build awareness in community care

For Debbie Rooney, Professor Kate Irving's research at DCU has been a game-changer. Debbie is the CEO of North Dublin Home Care (NDHC), which provides care in the community for people who need it. She trained with the Dementia Elevator programme to become a Dementia Champion and developed a person-centred care and support plan for NDHC, which included the delivery of training to the carers who work there.

"In the first half of 2019, we trained 60 carers in core dementia skills, and we plan to roll out the training to 240 staff over time," says Debbie. "The training helps us to put the person with dementia at the centre of the care and support package. Our community's needs are changing and Professor Irving's work on dementia awareness and training is helping us to change to meet those needs."



Debbie Rooney (left) with Professor Kate Irving from DCU



Professor Regina Connolly received an inaugural DCU President's Research Impact Award

## DCU research helps farmers in Ireland to bridge the digital divide

Farmers are busy people, and managing information online could help to save time and ensure their compliance with State and EU regulations. Yet, until relatively recently, the vast majority of farmers in Ireland did not use the existing online systems for payment claims and other important aspects of farm management.

That has changed thanks in part to the research of Professor Regina Connolly at DCU Business School, who began examining the situation almost a decade ago at the request of the Department of Agriculture, Food and the Marine. "The situation was bleak when I started this research," she recalls. "There were 137,500 farms in Ireland but only 5.6% of single-farm payment claims were received online, in comparison to Sweden where 55% of claims were received online. Online registration of animal births and movements, an issue that is critical for disease control and monitoring, was non-existent."

Professor Connolly analysed national and international data and conducted a detailed study with farmers. She compiled a report containing 14 recommendations, all of which were subsequently approved and funded by Government. The report informed a strong campaign that engaged with farmers around

the country, encouraging them to use the Department's Agfood.ie portal, their online applications and registration systems and critical EU compliance farming information.

"It worked," says Professor Connolly. "These actions resulted in a significantly improved uptake of ICT by farmers; to such a degree that the Department now has 100% online uptake for the majority of their schemes including the Basic Payment Scheme, which is worth in excess of €1.2bn annually to the farming community. In addition, around 10,000 farmers have downloaded the herd management app.

These tools mean that farmers can quickly share information with the Department, saving them time and making their work more efficient, improving disease monitoring and control and supporting Ireland's compliance with EU directives."

There were also wider consequences which had not been specifically planned, but which were hugely beneficial in rural communities, she adds. "Through using the AgFood online services, farmers and their families have benefitted from increased digital competence which has enabled them to access other online services that are less available in rural Ireland, and this has contributed to reduction of the digital divide and increased social inclusion."







DCU St Patrick's Campus





DCU All Hallows Campus



DCU Glasnevin Campus





[dcu.ie](http://dcu.ie)

