



3U PARTNERSHIP ANNUAL REPORT 2015 / 2016

WELCOME TO 3U PARTNERSHIP

Welcome to 3U Partnership's annual report for the financial year October 2015 to September 2016. 3U Partnership, a unique collaborative relationship between DCU, Maynooth University and RCSI, is a force for change and development in higher education and research.

This year, 3U Partnership celebrates its fourth year of operation and the partnership has continued to grow and mature. This has been a very productive year with many collaborative programmes and activities, supported by 3U Partnership, coming to fruition.

The wide range of collaborative academic activities and events has brought academics and staff from each of the partner institutions closer together in an atmosphere of collegiality and mutual benefit.

This annual report highlights some of the most significant activities and achievements of 3U Partnership during this period.



Professor Brian McGrath, President, DCU; Professor Philip Nolan, President, Maynooth University; Professor Cathal Kelly, CEO/ Registrar, RCSI

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REVIEW BY THE DIRECTOR

As Director of 3U Partnership, I am delighted to bring you 3U's Annual Report for the financial year October 2015 to September 2016.

This has been another year of progress for 3U Partnership in which we have consolidated our academic programmes as well as initiating a number of new collaborative ventures.

Key milestones of the year included: the graduation of our first graduands from the 3U Master in Engineering in Healthcare Technologies programme as well as hosting a number of high profile conferences, public lectures and master classes.

We in 3U Partnership were also delighted to organise our first 3U Innovediate Summer Institute, aimed at improving the communication skills of early stage researchers. Multi-faceted communication skills that engage the public and other interested persons with research agendas and outputs across a range of media channels (radio, tv, video, digital, print) is now an integral part of researchers' professional lives. Being able to navigate this complex communication world effectively is vital. 3U Innovediate Summer Institute provided the participants with the tools to take command of their own media presence and to develop strategies that engage and communicate with diverse audiences. As part of the 3U Innovediate Summer Institute, 3U organised a highly successful public lecture by Dr Ben

Goldacre, medical doctor, academic and best-selling author of the book “Bad Science” among others.

It has also been a significant year for the 3U Pathways programme with the launch of our new 3U Pathway Postgraduate Foundation Programme, which is in addition to the running the 3U Pathway University Foundation programme for undergraduate students. Key milestones for the 3U Pathway Programmes included achieving accreditation by Maynooth University for the Certificate in Research Skills (a 30-credit, level 8 special purpose award) as part of the 3U Pathway Postgraduate Foundation Programme. In just two years, the 3U Pathway Programmes have grown three-fold from an initial intake of 19 students in 2014-15 to 56 students in 2015-16.

This year has also seen a number of changes to the 3U Partnership Strategic Board. In particular, Professor James Walsh, Vice President for Strategy and Quality, Maynooth University attended his last 3U Partnership Board meeting in July 2017. Professor Walsh has been a committed member of the 3U Partnership governance since its inception and has always contributed generously of his time, experience and drive to this collaborative initiative. I would like to take this opportunity to sincerely thank Professor Walsh for all of his work with 3U over the past number of years. I wish him continued success as he moves into a new role with Maynooth University.



I hope you enjoy this look at 3U Partnership's activities over the past academic year as much as we in 3U have enjoyed being part of them. We look forward to a new and exciting year of collaboration ahead.

Dr Ruth Davis

3U ACADEMIC PROGRAMMES





3U ACADEMIC PROGRAMMES

3U Partnership co-operates actively in the delivery of the following two joint taught postgraduate programmes:

- 3U MEng in Healthcare Technologies
- 3U MSc in Humanitarian Logistics and Emergency Management

Both programmes draw on the complementary strengths of the 3U Partner Institutions.

3U MSc in Humanitarian Logistics and Emergency Management

The 3U MSc in Humanitarian Logistics and Emergency Management is jointly delivered by the DCU and Maynooth University Business Schools. Formally launched in November 2013, the programme has been endorsed by two government departments, namely: the Department of Foreign Affairs and Trade and the Department of the Environment and Local Government. It is also professionally accredited by the Chartered Institute of Logistics and Transport (CILT) and the Emergency Planning Society (EPS).



Graduates of the 3U MSc in Humanitarian Logistics and Emergency Management pictured at their graduation in Maynooth University on 29 October 2015 with Professor Philip Nolan, President Maynooth University, Professor Aidan Mulkeen, Vice-President Academic Affairs Maynooth University, Professor Jim Walsh, Vice-President Strategy and Quality Maynooth University, Dr Caroline McMullan, DCU Business School and Dr Ruth Davis, Director of 3U Partnership.

Led by Dr Caroline McMullan of DCU and Dr Graham Heaslip of Maynooth University, the programme contributes to the development needs of those involved in the field of humanitarian relief, international co-operation and emergency management.

The programme has grown in strength with 17 registered students enrolled on the programme in September 2015. Eleven students from the class of 2014/15 graduated with the 3U MSc in Humanitarian Logistics and Emergency Management at a conferring ceremony on 29th October 2015 at Maynooth University. Speaking at the graduation ceremony, Professor Philip Nolan, President of Maynooth University, noted that *“Graduates of this programme are the future managers and practitioners in public, private and voluntary sectors who will be called upon to handle large scale emergencies and disasters worldwide. I commend these graduates on their accomplishments and wish them well in the noble career paths that lay before them.”*

Following the appointment of Dr Heaslip as Professor and Head of the Business School in Galway-Mayo Institute of Technology, and the resultant loss of his unique academic expertise from 3U Partnership, it has been necessary to suspend enrolment onto this programme from September 2016 onwards. However, 3U looks forward to the graduation of the 2015/16 cohort of students in October of 2016 and to the development of similar and other academic collaborations between the two Business Schools in the future.

3U Partnership would like to thank Professor Heaslip for his immense contribution to the development and delivery of this very well received Masters programme. We wish him every success in his new role.



(L-R) Dr Noel Murphy DCU; Prof Brian MacCraith, President of DCU; Mr Killian Haycock, 3U MEng Graduate; Dr Dara Meldrum, RCSI; Dr Tomas Ward, Maynooth University; Dr Ruth Davis, Director of 3U Partnership, at the conferring ceremony held at DCU.

3U Master in Engineering in Healthcare Technologies

The 3U Master in Engineering in Healthcare Technologies programme prepares engineers who are capable of designing and developing electronic devices and systems for the medical and healthcare communities. These individuals will become flexible technologists who can work within the health services, hospitals and indigenous and international companies, providing products and services to frontline medical and healthcare providers. The programme is particularly suitable for engineers who wish to work in the important medical technology (Medtech) sector in Ireland or abroad. The Irish Medtech sector employs over 25,000 people (or 6% of Europe's medtech workforce) and has been identified as one of just five emerging hubs globally.

Through this programme, graduates with a Bachelor of Engineering degree in Electronic Engineering (or cognate disciplines) will extend their engineering skills and technical knowledge to work in partnership with healthcare clinicians and other medical experts, thereby acquiring a grounding in the culture, philosophy and language of the healthcare profession. The graduates are expected to develop strong skills in negotiating the clinical/ technology interface.

Ms Méabh Loughman and Mr Killian Haycock are the first two students to successfully complete this three semester programme and they graduated with a 3U Master of Engineering in Healthcare Technologies at a conferring ceremony held in the Helix, DCU on the 2nd April 2015. Both graduates are now employed in Medtech industries in Ireland.

Following an extensive review by the 3U Master of Engineering in Healthcare Technologies Programme Board, a number of changes have been made to improve the Masters programme and to make it more attractive to potential students. It is planned that the new programme will be commence with a new title **3U Master in Engineering in Digital Health and Medical Technologies** in September 2018.

The video for this programme can be viewed on 3U Partnership's YouTube channel or <https://youtu.be/tMNQ9DTaFRw>



3U RESEARCH





3U RESEARCH

In 2015/2016 3U Partnership's research profile was raised with successes in the following areas:

- 3U Global Health was awarded €3.6 million by the European Commission in Horizon 2020 research funding for the WATERSPOUTT Project
- 3U Global Health researchers published two collaborative books on water
- 3U Diabetes researchers organised its 4th International Diabetes Conference

Horizon 2020 Research Funding Success for 3U Global Health Researchers

WATERSPOUTT, a major international research project involving 3U Global Health Researchers from DCU, Maynooth University and RCSI, was awarded €3.6 million by the European Commission under the Horizon 2020 programme to develop low-cost technologies to reduce the number of people worldwide who rely on unsafe drinking water by using sunlight to kill harmful microbes.

The aim of the WATERSPOUTT project is to provide affordable access to safe drinking water in remote and vulnerable communities throughout Sub-Saharan Africa and other resource-poor countries.

The multinational consortium, which involves researchers from the 18 collaborating institutions across Europe and Africa including Spain, UK, Switzerland, Ireland, Italy, Austria, The Netherlands, Turkey, Uganda, South Africa, Malawi and Ethiopia, is coordinated by RCSI's Professor Kevin McGuigan and also involves researchers from Maynooth University, led by Professor Honor Fagan, and Dublin City University led by Dr Brid Quilty as part of the 3U Partnership - 3U Global Health research programme.

Solar water disinfection (SODIS) is a household water treatment that uses sunlight to kill harmful microbes in water stored in transparent containers and is used by 5 million people in developing countries on a daily basis. However, 660 million people around the world remain without sustainable access to safe drinking water. The WATERSPOUTT project will design, pilot and bring to market three novel solar based technologies which are solar rainwater reactors, solar jerry cans and solar-ceramic filtration.

WATERSPOUTT aims to increase the number of people who use SODIS by developing technologies that will allow larger volumes of water to be treated. These technologies will be designed in consultation with families, schools and clinics in Africa and will be piloted in Uganda, South. Africa, Ethiopia and Malawi.

WATERSPOUTT technologies will have an estimated market impact for more 102 million potential end-users in Africa in addition to 50 million others in Asia, Europe and Latin America.

The WATERSPOUTT consortium partners are: RCSI (Royal College of Surgeons in Ireland), Ireland; CIEMAT Plataforma Solar de Almería, Spain; Universidad Rey Juan Carlos, Spain; University of Strathclyde, UK; University of Malawi Polytechnic, Malawi; Ecole Polytechnique Fédérale de Lausanne, Switzerland; Maynooth University, Ireland; Innova, Italy; Makerere University Kampala, Uganda; University of Stellenbosch, South Africa; Ecosystem Environmental Services, Spain; Mekelle University Tigray, Ethiopia; Buckinghamshire New University, United Kingdom; Bogaziçi University Istanbul, Turkey; HELIOZ GmbH, Austria; Dublin City University, Ireland; Stichting IHE Delft, Netherlands; and University of Santiago de Compostela, Spain.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 688928.



The WATERSPOUTT project team pictured at the 2-day symposium to launch the WATERSPOUTT project, 4th July 2016.

3U Global Health Researchers Launch Two Collaborative Books On Water

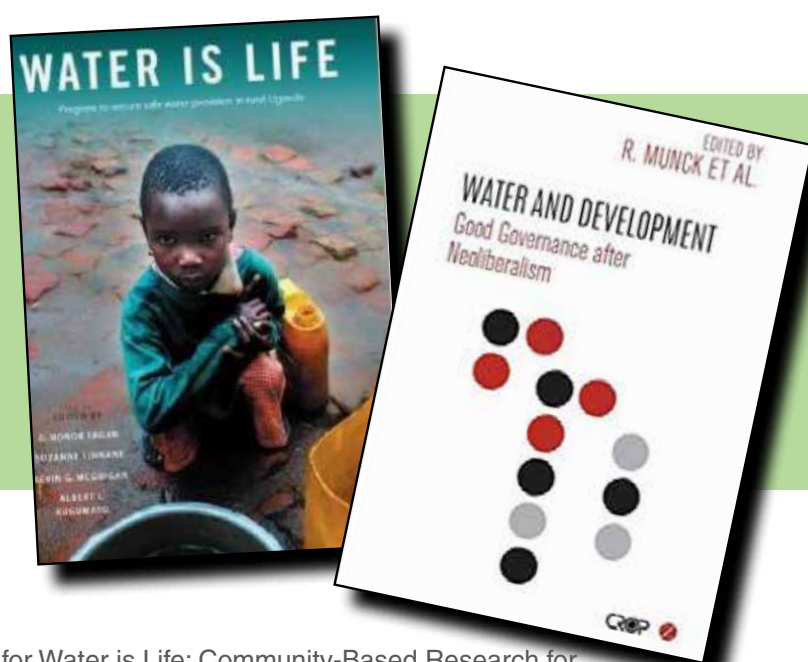
In addition to their success in Horizon 2020, the 3U Global Health Researchers also launched two newly published collaborative books on sustainable water in developing countries at the DSA Ireland (Development Studies Association of Ireland) Annual Conference on 19 November 2015:

Water is Life: Community-Based Research for Sustainable Safe Water in Rural Uganda

G. Honor Fagan (Editor), Suzanne Linnane (Editor), Kevin G. McGuigan (Editor), Albert Rugumayo (Editor) (2015, Practical Action)

This book focuses on community-based research into improving the sustainability and equity of safe water production, consumption and management at community level in rural Uganda. It provides an account of the findings of a five-year combined Social Science and Natural Science and Engineering research work programme (2009-2014) which took place within and with the community, in the sense that the community identified their water needs and related their everyday struggles with water resourcing to the research team, and contributed to the outcomes.

For more details about this book please visit: <https://www.maynoothuniversity.ie/sociology/news/new-book-water-life>



Book covers for Water is Life: Community-Based Research for Sustainable Safe Water in Rural Uganda and Water and Development

Water and Development: Good Governance after Neoliberalism

Ronaldo Munck (Editor), Narathius Asingwire (Editor), Honor Fagan (Editor), Consolata Kabonesa (Editor) (2015, Zed Books)

This book examines a range of issues, from governance to solar distillation, from gender to water pumps, using a range of research methods, from participant observation to GIS and SPSS data analysis. Throughout, however, there is the unifying thread of developing a participatory and sustainable approach to water which recognises it as an essential public necessity.

For more details about this book please visit:

<https://www.maynoothuniversity.ie/sociology/news/new-book-water-and-development-good-governance-after-neoliberalism>

In Research News...

3U Global Health and Solar Water Disinfection Research

Professor Kevin McGuigan is a 3U Global Health Researcher and associate professor in the Department of Physiology and Medical Physics, RCSI was featured in the Irish Times on 8th September 2016 talking about 3U Global Health research in the area of Solar Disinfection of water in third world countries.

His interview can be accessed at:

<http://www.irishtimes.com/news/science/the-irish-man-who-uses-the-sun-to-make-drinking-water-safer-1.2775554>



4th Annual 3U Partnership International Diabetes Conference 2016

Researchers from the United States, France, the United Kingdom and Ireland gathered to address the 4th Annual 3U Partnership International Diabetes Conference entitled 'Current Challenges in Diabetes Research' which took place at RCSI on the 15th, January 2016.

The 2016 conference included a talk from world-leading diabetes expert, Professor James Shaw, Chair of the UK Islet Transplant Consortium, who spoke about Islet Transplantation for Type 1 diabetes at 3U Diabetes Conference. Islet transplantation, a treatment, not currently available for people with Type 1 diabetes in Ireland, involves the replacement of islets of the pancreas, which contain the cells that make insulin. These cells are lacking in patients with Type 1 diabetes. Other talks at the 3U Partnership conference focused on the effect of hypoglycaemia on the brain, how damage to the islets of the pancreas contributes to the development of the more common form of diabetes, Type 2 and the emerging role of hormones made in the intestines on obesity and diabetes.

The 3U Diabetes conference has become one of the most important events in the diabetes calendar over the last 4 years. The conference which focuses on hot topics in research in both Type-1 and Type-2 diabetes, is an important event for the 3U Partner Institutions and has allowed the consortium to develop collaborative links with leading institutions in the world of diabetes research. It is envisaged that these links will foster training opportunities for young Irish researchers and contribute significantly to the evolution and sustainability of the important 3U Partnership.

Diabetes is one of the most common chronic diseases in Ireland affecting an estimated 4-5% of the population and it is a priority research focus of the 3U Partnership. The 3U Diabetes Consortium, comprising clinicians and scientists from the three institutions, is committed to developing cutting edge research into this chronic and costly disease



3U Diabetes organisers with keynote speakers (L-R) Dr Josephine Egan (National Institute of Aging, Baltimore, USA), Prof Seamus Sreenan (RCSI), Dr Garry Duffy (RCSI), Prof Domenico Accilli (Columbia University Medical Center), Prof Stephanie Amiel (Kings College London), Dr Donal O'Gorman (DCU), Dr Ronan Canavan (St. Vincent's University Hospital), Dr Diarmuid Smith (RCSI) with Dr Ruth Davis (Director of 3U Partnership).

in Ireland and aligns a number of interlinked areas of research into the condition extending from identifying and developing new molecules with therapeutic potential to providing world class diabetes care and treatments in the clinic.

In Research News...

Dr Donal O'Gorman, exercise physiologist at DCU and Director of 3U Diabetes was in the European Commission's news spotlight for his involvement in the FP7 Consortium DEXLIFE which looks at the progression from pre-diabetes to type 2 diabetes by tracking volunteers' physiological improvements.

Donal's interview, which was part of a raising awareness campaign on World Diabetes Day, can be accessed on the European Commission's news feed at: <http://ec.europa.eu/.../world-diabetes-day-dcu-scientists-bea...> The interview was also picked up by Euronews at: <http://www.euronews.com/2015/11/09/confronting-the-epidemy-that-is-diabetes>

3U PROFESSIONAL DEVELOPMENT





3U PROFESSIONAL DEVELOPMENT

During 2015/16, 3U Partnership organised the following professional development programmes and public lectures:

- 3U Healthcare Ethics & Law Master Class
- The Burns Sisters' Public Lecture and Master Class 2016 by Professor John Bellamy Foster
- 3U Innovediate Summer Institute for Advanced Research Communication Skills
- 3U Innovediate Public Lecture by Dr Ben Goldacre
- 4th Annual Leadership Symposium

PROFESSIONAL DEVELOPMENT

3U Healthcare Ethics & Law Master Class

3U Partnership attracted a capacity audience for the 3U Master Class in Healthcare Ethics and Law, which examined the medical, legal and ethical implications of the newly-enacted Assisted Decision-Making (Capacity) Act 2015. The master class took place on the 19 February 2016 in the Royal College of Physicians of Ireland.

This master class provided a timely and valuable insight into this newly enacted legislation and the practical implications for professionals in both legal and healthcare settings. The 3U master class, was opened by Ms Justice Marie Baker and featured contributions from legal and healthcare experts in this field including Dr Charles O'Mahony, Centre of Disability Law and Policy, School of Law NUI Galway; Professor Mary Donnelly and Dr Joan McCarthy UCC; Professor Brendan Kelly UCD and Ms Patricia Rickard Clarke Former Commissioner of the Law Reform Commission.



Professor Mary Donnelly speaking at the 3U Healthcare Ethics & Law Masterclass 2016



(L-R) Dr Charles O'Mahony Centre of Disability Law and Policy, School of Law NUI Galway, Professor Mary Donnelly, School of Law UCC, Dr Joan McCarthy School of Nursing & Midwifery UCC, Ms Justice Marie Baker, Prof Michael Doherty Maynooth University, Ms Patricia Rickard Former Commissioner of the Law Reform Commission and Dr Adam McAuley School of Law and Government DCU at the 3U Healthcare Ethics & Law Master Class 2016.

The topics addressed at the master class included: The International Human Rights Framework context for the new Act; Legal Principles of the Assisted Decision-Making (Capacity) Legislation; Mechanisms in the Assisted Decision-Making (Capacity) Legislation; Advance Care Directives; Implications of Advance Care Directives from an Ethical Perspective and Implications of the 2015 Act from a Clinical Perspective.

3U Innovediate Summer Institute for Advanced Research Communication Skills

One of the highlights of the 3U Partnership 2016 activities was the 3U Innovediate Summer Institute for Advanced Research Communication Skills which took place between the 30th May and 2nd June 2016 and focused on early stage researchers (both postgraduate and postdoctoral) who wished to develop their communication skills to effectively present their research to various audiences.

In an increasingly media-centric world, it is vital that researchers take command of their own media presence, whether that is through regular contact with media representatives, through their own self-controlled social media identities campaigns, or through various modes of dialogue in schools, science centres, public spaces or with policymakers and industry.

The four-day 3U Innovediate Summer Institute was a highly participative, residential programme incorporating guest speakers, intensive workshops, practical work, off-site visits and an evening social programme which provided the participants with skills and techniques to enable them to negotiate the current media-intense world and to become effective communicators of their research and interests.

3U Innovediate was jointly developed by Dr Padraig Murphy of DCU's School of Communications, Dr Alison Farrell, Head of Maynooth University's Writing Centre and Dr Olga Piskareva of the Department of Molecular & Cellular Therapeutics, RCSI with the support of the Graduate Studies Office, Maynooth University, RCSI's School of Postgraduate Studies and Health Professions Education Centre, and the 3U Partner Institutions' Libraries. The 3U Innovediate Summer Institute included additional contributions from external media professionals.



Professor Philip Nolan President of Maynooth University with 3U Innovediate Summer Institute participants and organisers (Dr Olga Piskareva RCSI, Dr Padraig Murphy DCU, Dr Alison Farrell Maynooth University and Ms Ellis Murray Maynooth University Graduate Studies office).



Participants and Contributors to the 3U Innovediate Summer Institute at DCU.

4th Annual 3U Leadership Symposium – Leading the Pursuit of Quality?

This year's 3U Leadership Symposium took place on Saturday the 5th March 2016 at Maynooth University.

The theme of this dynamic day was "Leading the Pursuit of Quality?" The day provided opportunities for graduates from MSc programmes in Leadership at DCU School of Education Studies, RCSI Institute of Leadership and from the Postgraduate Diploma in Educational Leadership (Tóraíocht) offered by the Department of Education, Maynooth University, in partnership with PDST, to present insights from their organisational development projects in the education and healthcare professions.

Over 400 delegates coming from the fields of health, education and business attended the symposium. The programme featured keynotes lectures on leading the pursuit of quality from Dr Harold Hislop (Chief Inspector, Department of Education and Skills); Mr Dessie Farrell, CEO of the Gaelic Players Association; Dr Sean Ruth, Organisational Psychologist and Mr John Farrelly (Deputy Chief Inspector of Social Services, HIQA).

In addition, the delegates heard from leadership expert Professor Kathryn Riley (Professor of Urban Education, Institute of Education, University College, London) whose keynote lecture focused on how to create cultures of belonging in education.



RCSI Institute of Leadership student participants with Ms Siobhan McCarthy, Programme Director MSc in Quality and Safety in Healthcare Management, Ms Theresa Keane, Programme Director MSc in Healthcare Management and 3U Leadership Symposium keynote speakers.

PUBLIC LECTURES

The Burns Sisters'* Public Lecture and Master Class 2016

3U Partnership was particularly excited to welcome leading US Sociologist, Professor John Bellamy Foster to Dublin to present the **2016 Burns Sisters' Lecture and Master Class**.

Professor Foster delivered a lecture entitled "**The Anthropocene and the Crisis of Civilisation: Climate Change and Capitalism**" at RCSI on Thursday May 5th, 2016 and a Master Class entitled "**The Two Cultures and the Ecological Rift**" in the IONTAS building, at Maynooth University.

Professor Foster is Professor of Sociology at the University of Oregon and also editor of the Monthly Review. His research is devoted to critical inquiries into theory and history, focusing primarily on the economic, political and ecological contradictions of capitalism and imperialism, but also encompassing the wider realm of social theory as a whole.

Social Sciences in general have traditionally conceptualised the world 'as if nature did not matter.' That changed after the publication of Foster's seminal paper in the American Journal of Sociology in 1999. In re-visiting the classical works of the founding fathers of Sociology – Weber, Durkheim and especially Marx – Foster highlighted their acute awareness of how nature plays a pivotal role in the existence of society. He demonstrated that the apparent ecological problems of

*Lizzie and Mary Burns were 19th Century working class Irish sisters and comrades of Friedrich Engels who had the ability to summon intellectuals not just to conceptualize concrete reality but crucially to experience it. The Burns sisters guided Engels through colonized Ireland on three occasions. Keeping Karl Marx abreast of one such trip, Engels ended a letter to his collaborator with the words: "I shall write shortly if you won't come over soon. How about it?" Marx didn't make it. But evoking the spirit of the Burns sisters, we invited John Bellamy Foster to Ireland and happily he accepted our invitation.

the natural world are in fact socially determined. It is the metabolic relationship between nature and society that is the kernel of Foster's ground breaking research and publications, and that has encouraged social scientists to reclaim 'nature' from the natural scientists.

Contemporary climate change has to be understood within the context of contemporary capitalism. In his lecture and master class, Foster addressed both the current threat to civilisation, and the necessary actions that humanity must now take in order to overcome it. According to Foster, *"we can continue on the path of business as usual and risk catastrophic Earth-system change (what Frederick Engels metaphorically referred to as "the revenge of nature"), or we can take the transformative route of social-system change aimed at egalitarian human development in co-evolution with the vital parameters of the earth."*

Professor Foster's visit was organised under the auspices of 3U Partnership, with additional support from the Department of Sociology and the Crops, Plants and Bio-economy Research Cluster at Maynooth University.



Professor John Bellamy Foster speaking at The Burns Sisters' Public Lecture

3U Partnership Public Lecture by Dr Ben Goldacre



Bestselling author of “Bad Science”, Dr Ben Goldacre, spoke to a capacity audience of staff and students from across the 3U Partner Institutions, interested stakeholders and the general public at the 3U Partnership-sponsored public lecture entitled “Bad Trials” in RCSI on the 2nd June, 2016.

The 3U public lecture was the culmination of an intensive four-day 3U Innovediate Summer Institute. Dr Goldacre, who is famous for unpicking dubious scientific claims, highlighting incomplete research results and poorly-designed clinical trials, focused his lecture on the serious responsibilities on researchers to perform their research with the utmost integrity and to ensure their research results are communicated accurately and fully to a wider audience.

Dr Goldacre is a medical doctor, academic, campaigner and writer whose work focuses on use and misuse of science and statistics by journalists, politicians, drug companies and quacks. His first book, *Bad Science*, reached number one in the UK non-fiction charts and has sold over half a million copies worldwide. His second book, *Bad*

Pharma, discusses problems in medicine, focusing on missing trials, badly designed research, and biased dissemination of evidence. Dr Goldacre also wrote the Bad Science column for a decade in the UK Guardian newspaper, and has contributed articles to the Times, the Telegraph, the Mail, the New York Times, the BMJ, and more, alongside presenting documentaries for the BBC, and appearing regularly on radio and TV.

Dr Goldacre has maintained a long-standing campaign to raise awareness of conscious and unconscious publication biases, non-reporting of negative results and misleading research claims. This campaign is particularly resonant in light of many recent research controversies which demonstrate that it can be extremely challenging for researchers to dispute commonly held theories.

He is currently a Senior Clinical Research Fellow at the Centre for Evidence Based Medicine in the Department of Primary Care in the University of Oxford, and a Research Fellow in Epidemiology at London School of Hygiene & Tropical Medicine, where he runs the EBM data lab in the University of Oxford and builds interesting live data tools to improve science and healthcare, like OpenPrescribing and OpenTrials.



Dr Ben Goldacre speaking at the 3U Partnership Public Lecture, 'Bad Trials'

3U EDUCATION



A person with curly hair, wearing an orange shirt, is seen from the side, looking out a window. The background shows a blurred view of a building with a grid-like window pattern. A white text box is overlaid on the bottom right of the image.

3U EDUCATION

3U Partnership's N-STEP, National Initiative in STEM Education and Practice, encourages research in to the teaching of Science, Technology, Engineering and Mathematics across the 3U Partner Institutions.

3U National Initiative in Stem Education and Practice Strand 1 Research Outputs Publication

3U Partnership established 3U NSTEP, the National Initiative in STEM Education and Practice, in order to encourage research into STEM (science, technology, engineering and mathematics) teaching and learning at university level.

In particular, the 3U NSTEP Strand 1 research initiative brought together academics from various disciplines across the 3U Partnership working collaboratively on eight different projects researching different aspects of third level STEM pedagogy, ranging from: i) exploring the need to integrate interdisciplinary communication skills training into the curricula of STEM students and the effect of different cultural backgrounds on the experiences of students studying STEM subjects, through to ii) developing an understanding of what mathematical knowledge is required to carry out the work of teaching mathematics, and iii) exploring the role of metacognition in mathematical reasoning and problem-solving and distinguishing between imitative reasoning and creative reasoning in undergraduate calculus.



Dr Ruth Davis, Director of 3U Partnership with Dr Ann O'Shea, Maynooth University at 3U NSTEP Stand 1 Publication Launch at Maynooth University in July 2015

The wide diversity of projects under the 3U NSTEP Strand 1 initiative highlights the complexity and multidisciplinary nature of the issues influencing the effective teaching of STEM subjects at all levels of education. For example, in one particularly timely project, the views and expectations of students regarding a new five year Integrated Pharmacy Programme were examined, while another project focused on the development of a smart phone app prototyping a real-time student response system in a distributed classroom.

Each of the projects involved academics from each of the 3U Partners and all are excellent examples of how 3U Partnership has harnessed the multidisciplinary academic capacity of DCU, Maynooth University and RCSI to focus on this complex issue. In particular, we are very pleased that a number of collaborations generated through 3U NSTEP Strand 1 have led to further projects that have successfully attracted external funding from the National Teaching and Learning Forum.

In July 2015, 3U Partnership launched a publication highlighting the research outputs of the eight 3U NSTEP Strand 1 research projects. All of the research outputs are interesting and novel, all contribute to the advancement of STEM pedagogy and all aim to improve the educational experiences of STEM students in each of the partner institutions.

The e-publication of this report may be accessed at:

http://3u.ie/wp-content/uploads/2016/01/3U-NSTEP-PUBLICATION_WEB_SINGLE-1.pdf



3U INTERNATIONAL

Ááilte

Welcome

3U P



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nership

3U PATHWAYS PROGRAMMES

3U Pathways offers the following pathway programmes to international students and graduates:

- 3U Pathway University Foundation Programme
- 3U Pathway Postgraduate Foundation Programme
- 3U Pre-sessional English Language Programmes



3U Pathway Programmes



Sheila McCormack-Cooney, 3U Pathway Programmes Co-ordinator; Dr Mary Fenton, Head of 3U Pathways

2015/16 was a year of significant development for 3U Pathways with the launch of the new 3U Pathway Postgraduate Foundation Programme (PFP) and the expansion of its team to include Ms Sheila McCormack-Cooney, 3U Pathway Programmes Co-ordinator. Sheila has made an excellent contribution by enhancing the student experience through the provision of academic, pastoral and practical support to the 3U Pathways students.

In addition, the profile of 3U Pathways was raised amongst prospective students and educational agents through the new 3U Pathway website, video and marketing material.

There was a 300% growth in student enrolments on the 3U Pathway Programmes from an initial intake of 19 students in 2014/15 to 56 students in 2015/16.

Overview of Growth of 3U Pathway Programmes

	2014/15	2015/16	Total
3U Pathway University Foundation Programme	19	27	46
3U Pathway Postgraduate Foundation Programme	N/A	29	29

3U Pathway University Foundation Programme

The 3U Pathway University Foundation Programme (UFP) prepares international students for undergraduate study at either DCU or Maynooth University by providing them with the knowledge, skills and attitudes to flourish in their undergraduate study. Throughout the 30-week programme, students develop their English language proficiency, their knowledge of their chosen academic subjects as well as their communication and study skills.

In 2015/16, 3U Pathways welcomed two cohorts of students onto the 3U Pathway UFP in September 2015 and January 2016. In total, 27 students participated on the 3U Pathway UFP with 26 students successfully completing the programme. Of those graduates, 25 went on to undergraduate study at DCU, Maynooth University, RCSI Bahrain and DIT. There was great diversity amongst the student body with students coming from Bangladesh, China, Costa Rica, Japan, Jordan, Kenya, Kuwait, Malaysia, Nigeria, Oman, Russia, Saudi Arabia and South Africa. The feedback from students was very positive with some constructive suggestions for ways for enhancing the programme for future students.

3U Pathways acknowledges the support of the Kuwaiti Cultural Bureau in Dublin, the Omani Consulate and the Saudi Ministry for Higher Education in the sponsorship of students on the UFP.



(L-R) 3U Pathways students 2015-16 Hend Albusaili (PFP student, Saudi Arabia); Ademola Alayande (UFP student, Nigeria); Abdulelah Alharbi (PFP student, Saudi Arabia); and Bashayer Alnaki (UFP student, Kuwait).

3U Pathway Postgraduate Foundation Programme

In 2015/16, 3U Pathways successfully developed and piloted the 3U Pathway Postgraduate Foundation Programme (PFP). This intensive programme provides international graduates with a vital bridge between their undergraduate education and the requirements for postgraduate study (Masters or PhD) at Maynooth University or RCSI. It is primarily aimed at international graduates who wish to pursue postgraduate study at Maynooth University or RCSI but who do not meet the English language requirements for direct entry. However, the programme is unique in that it offers international graduates a guaranteed pathway to postgraduate study at both partner institutions. It, thereby, offers the 3U Partner Institutions the opportunity to recruit more international graduates and contribute to the development of a rich intercultural postgraduate student body.

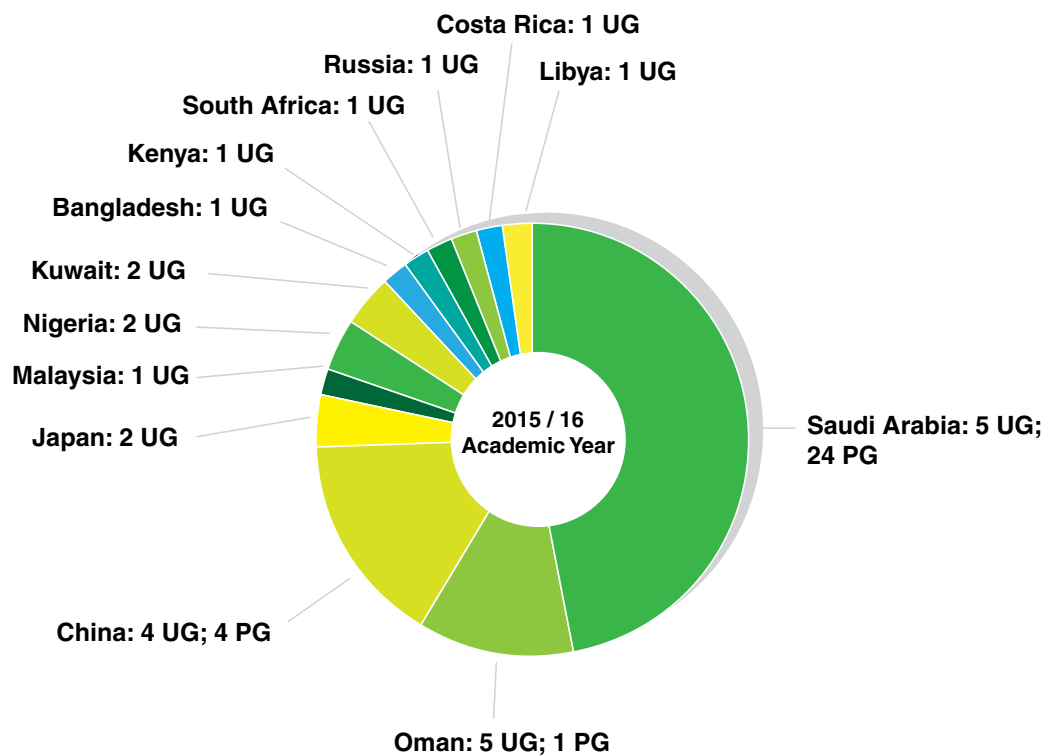
This intensive 26-week programme provides international graduates with a pathway to postgraduate study in Ireland whilst developing their:

- English language proficiency
- Knowledge of English for Academic Purposes
- Understanding of the research process
- Practical research skills
- Intercultural communications skills
- Research proposal.

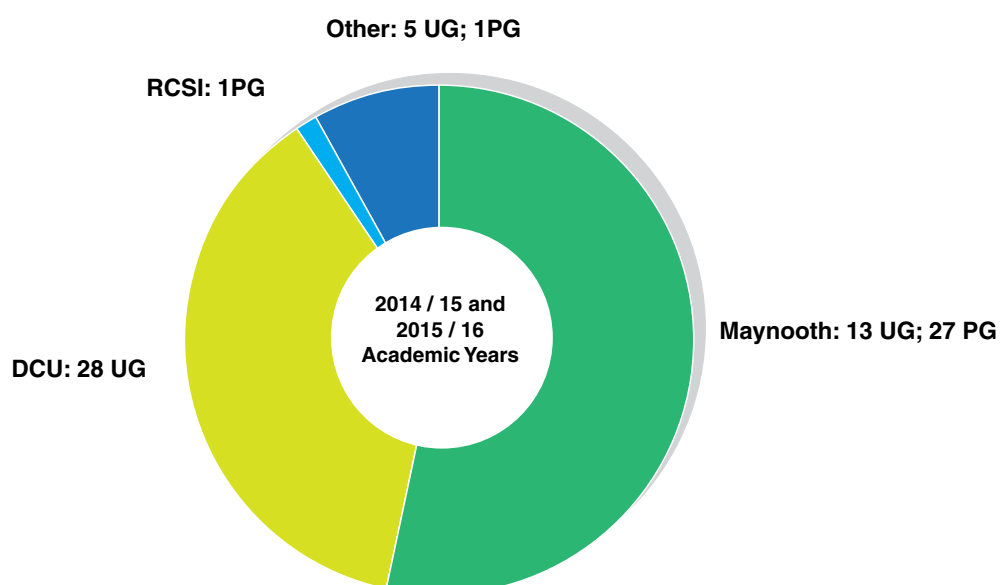
In 2015/16, 3U Pathways welcomed its first two cohorts comprising 29 students from China, Oman and Saudi Arabia. 28 students successfully completed the programme and progressed to Masters and/or PhD programmes at Maynooth University, RCSI, DCU, UCD and DIT.

3U Pathways acknowledges the support of the Omani Royal Court and the Saudi Ministry for Higher Education in the sponsorship of students on the PFP.

Countries of Origin of 3U Pathway Students



Destination Universities / Colleges of 3U Pathway Students



Development and Accreditation of Certificate in Research Skills

Throughout the delivery of the pilot programmes, 3U Pathways sought feedback from both students and teachers as to how to enhance the 3U Pathway PFP and this informed the design of the Certificate in Research Skills, a 30-credit, level 8 special purpose award, accredited by Maynooth University. It is envisaged that by studying the Certificate in Research Skills, international graduates will: (i) develop their understanding of the research process and ethics; and (ii) acquire practical research skills necessary for effective postgraduate study and research.

In addition, it will also:

- Provide a supportive learning environment, where international graduates are encouraged to become effective self-directed learners and researchers
- Prepare international graduates for postgraduate study and research by developing their knowledge and understanding of the research process, methods, ethics, academic enquiry and conventions relevant to both STEM and Business, Humanities and Social Sciences fields of research
- Develop international graduates' skills for academic enquiry
- Provide international graduates with an understanding of the nature and theory of research
- Develop international graduates' practical research skills
- Provide a challenging yet strongly supported intercultural learning environment in which students can exchange ideas and views, experiences and attitudes
- Develop international graduates' inter-cultural skills
- Integrate international graduates to student life in Ireland.

Leadership Symposium

As part of the Leadership Skills module, the 3U Pathway PFP students were tasked with organizing a Leadership Symposium at Milltown Institute on 6 May, 2016. During the symposium, the students presented on topics such as: their motivation for pursuing postgraduate study in Ireland; their initial impressions of Ireland and Dublin as a study destination; their experience as international students in Ireland; and their reflections on studying the 3U Pathway PFP. The symposium was well attended and culminated in the presentation of certificates of completion to the first graduates by Dr Ruth Davis, Director of 3U Partnership.



3U PFP students at the 2016 Leadership Symposium

3U Pre-Sessional English Language Programmes

The 3U Pathway Pre-sessional English Language Programmes are aimed at international students who wish to pursue undergraduate or postgraduate study at DCU, Maynooth University or RCSI but who require additional English language support. In 2016, the cessation of the Brazilian Government's Science Without Borders Programme funding led to a sharp reduction in demand for these programmes. 3U Pathways outsourced the delivery of these programmes to DCU Language Services and Maynooth University Language Centre whilst managing the final assessment of students. Both programmes were very effective with all students successfully progressing to undergraduate or postgraduate study at DCU or Maynooth University.

3U GOVERNANCE



3U Partnership Board

There were a number of changes to the membership of the 3U Partnership Board during the financial year 2015/16. Professor James Walsh left the Board when he stepped down from his role as Vice President for Strategy and Quality in Maynooth University.

Professor Alan Harvey also stepped down from his role as Vice President for Research and Innovation in DCU and was replaced initially by Professor Regina Connolly, Deputy Vice President for Research and Innovation, and subsequently by Professor Greg Hughes, Acting Vice President for Research and Innovation, DCU.

The 3U Partnership Board also co-opted onto the Board Mr Trevor Holmes, Professor Ronan Reilly, senior executives with responsibility for internationalisation at DCU and Maynooth University, respectively. The Board also decided that the 3U Partner Institutions' Finance Directors should attend the 3U Partnership Board meetings.

The current composition of the 3U Partnership Board is as follows:

- Professor Brian MacCraith, President of DCU
- Professor Philip Nolan, President of Maynooth University
- Professor Cathal J. Kelly, CEO, RCSI
- Professor Eithne Guilfoyle, Vice President of Academic Affairs, DCU
- Professor Hannah McGee, Dean Faculty of Medicine and Health, RCSI
- Professor Greg Hughes, Acting Vice President for Research and Innovation, DCU
- Professor Bernard Mahon, Vice President for Research, Maynooth University
- Professor Ray Stallings, Director of Research and Innovation, RCSI
- Mr Trevor Holmes, Vice President for External Affairs, DCU
- Professor Ronan Reilly, Dean of International and Graduate Studies, Maynooth University

3U Collaboration Ltd Board of Directors

The 3U Collaboration Ltd Board of Directors comprises the following members:

- Professor Brian MacCraith, President of DCU
- Professor Philip Nolan, President of Maynooth University
- Professor Cathal J. Kelly, CEO, RCSI
- Mr Ciaran McGivern, Finance Director, DCU
- Mr Michael O'Malley, Bursar, Maynooth University
- Ms Jennifer Cullinane, Finance Director, RCSI.

The Board of the Company reported to its shareholders at the second Annual General Meeting which was held on the 13th April 2016.

During the past year, 3U Collaboration Ltd made the necessary changes to convert from a limited company to a Designated Activity Company (DAC) in compliance with the commencement of the Companies Act 2014.

Notes

Notes

3U
PATHWAY
PROGRAMMES

 **3U PARTNERSHIP**
GREATER DUBLIN UNIVERSITIES
DCU · MAYNOOTH · RCSI

3U Partners

