



**3U PARTNERSHIP  
HIGHLIGHTS  
2012 - 2017**

## Message from Dr Ruth Davis, Director of 3U Partnership

**3U Partnership**, the strategic partnership between DCU, Maynooth University and RCSI, marked the five-year anniversary of its establishment on 26th June 2017. 3U Partnership's vision is to form a deep and sustainable partnership to enable the three partner institutions to achieve much more together than could be achieved on their own. Each of the 3U Partners have world class research and teaching portfolios which together span a wide range of disciplines and in addition, RCSI brings clinical expertise and strong links to acute hospitals and other healthcare facilities that are essential to deliver truly translational research, from bench to bedside to population and vice-versa. 3U Partnership provides a framework that enables joint initiatives across the institutions to capitalise on the benefits of greater scale and synergy whilst preserving the separate identities of the three partner institutions. Through 3U Partnership, the partner institutions aimed to:

- Enrich the academic opportunities available to their students by developing joint postgraduate degree programmes
- Harness the research strengths of the 3U Partners to more effectively develop solutions to major issues confronting citizens today in areas such as healthcare, sustainability, globalization and technology,
- Attract more international students to study in Ireland through the 3U Pathway Programmes.

During these five years, 3U Partnership has succeeded in achieving a significant amount of its stated objectives, both in terms of delivering specific activities as well as structurally building the collaborative base of the partnership. The key achievements of 3U Partnership under each of its objectives are outlined in Appendix 1.

The development of the 3U Pathway Programmes is one of the major achievements of 3U Partnership. The two 3U Pathway Programmes were designed to attract international students for study at the 3U Partner Universities. Thanks to the efforts of a small but highly dedicated and focused 3U Pathways team, the programmes quickly gained brand recognition and credibility amongst potential students, Cultural Bureaux and education agents. The programmes attracted international students who understood the value of how an internationally recognised qualification could enhance their career prospects and their own personal development. The success of the 3U Pathway Programmes business was validated in March 2017 when the 3U Partnership Board sold 3U Pathways as a going concern to an Irish-Australian joint venture between RiseGlobal and EduCo International. The new business entity, EduCo Ireland, aims to build on the solid foundations laid by the 3U Pathway Programmes and attract more international students to study at both universities.

The last five years have been a remarkable and rewarding journey for the 3U Partners, the participating academics and staff and for the 3U executive team which has seen 3U Partnership grow and establish itself as a leader in the Irish Higher Education sector promoting structured and sustained collaboration across its partners. This is especially evident in the Mid-East North Dublin (MEND) regional cluster (DkIT, DCU, Maynooth University, AIT) where the strong relationships built between the 3U partner institutions have allowed them to take a leadership position on collaboration and where 3U Partnership and the MEND cluster are seen as national exemplars.

However, it is timely to reflect on and review what has been achieved by 3U Partnership, what has worked and what needs to change. There is no doubt that the foundations of 3U Partnership have been built upon existing links and natural synergies between the three partner institutions. Whilst this has proven to be a vital and successful first step, it is not realistic that the long term development of 3U Partnership would be dependent on the emergence of serendipitous connections between the institutions and their staff.

3U Partnership is currently developing a new and more focused strategy for its future development that will clearly outline the scope and future ambitions of the Partnership. It is proposed that the partnership concentrate on the following activities:

- continuing support for existing research collaborations that find the 3U Partnership identity useful and any new collaborations the Vice-Presidents for Research might propose,
- collaborative research and professional development in third-level teaching and pedagogy.



3U Partnership team: Dr Mary Fenton, Head of 3U Pathways; Sheila McCormack-Cooney, 3U Pathways Co-ordinator; Dr Ruth Davis, Director of 3U Partnership; Andrea Clarke, Marketing Officer

It is also proposed that 3U Partnership will explore the possibilities for collaboration in: (i) leadership and management development programmes aimed at Heads of Department and Deans, and (ii) the taught components of structured doctoral programmes. This new strategy will seek to capitalise on the existing connections and synergies that have been developed over the past five years but it will also look for new ways in which the partners can benefit from their combined strengths.

I wish to acknowledge the generous contributions of all of the academics and staff from across the 3U Partner Institutions who participated in various 3U initiatives and who have been critical to 3U's success to date. I also wish to thank the members of the 3U Partnership Board and 3U Collaboration DAC Board of Directors for their sound guidance and effective leadership.

I also wish to take this opportunity to thank all those who have contributed to making 3U Partnership a success over these past number of years. In particular, I wish to thank the 3U executive team, Dr Mary Fenton, Ms Sheila McCormack-Cooney and Ms Andrea Clarke, for their exceptional work and dedication.

3U Partnership looks forward to a bright future where it continues to support the development a deep and sustainable linkages across the many layers of activities within the partner institutions.

I and all of the 3U executive team are immensely proud of what has been achieved during these formative years of 3U Partnership. This document highlights many of 3U Partnership's activities during this time.

Dr Ruth Davis

## 3U JOINT TAUGHT MASTER PROGRAMMES

### 3U MEng in Digital Health and Medical Technologies

The 3U MEng in Digital Health and Medical Technologies (3U MEng) is a one-year taught Masters programme combining the electronic engineering strengths of DCU and Maynooth University with the medical and healthcare expertise of RCSI. The programme provides Electronic Engineering graduates with the skills required to design and develop electronic devices and systems specifically for the medical and healthcare sectors. Moreover, it provides graduates with knowledge of medical, legal, ethical and regulatory frameworks and immerses them in the cultural and professional ethos of medical and clinical practice. Graduates of the programme will become innovators and entrepreneurs and create new tools and solutions for the healthcare technologies sector. The programme is led by Dr Noel Murphy, DCU, and Professor Tomas Ward, Maynooth University.

### 3U MSc in Humanitarian Logistics and Emergency Management

The 3U MSc in Humanitarian Logistics and Emergency Management was jointly developed and delivered by the DCU and Maynooth University Business Schools. Formally launched in November 2013, the programme was endorsed by two Government Departments, namely: the Department of Foreign Affairs and Trade and the Department of the Environment and Local Government. It was also professionally accredited by the Chartered Institute of Logistics and Transport (CILT) and the Emergency Planning Society (EPS). Led by Dr Caroline McMullan, DCU, and Dr Graham Heaslip, formerly Maynooth University, the programme contributed to the development needs of those involved in the field of humanitarian relief, international co-operation and emergency management. The programme grew in strength with over its two years of delivery with graduates becoming managers and practitioners in public, private and voluntary sectors who will be called upon to handle large scale emergencies and disasters worldwide. Following the appointment of Dr Heaslip as Head of School of Business, GMIT, and the resultant loss of his unique academic expertise from 3U Partnership, the programme ceased enrolment of students onto the programme from September 2016 onwards.



*Graduates of the 3U MSc in Humanitarian Logistics and Emergency Management pictured at their graduation in Maynooth University on 29 October 2015*

## 3U RESEARCH

3U Partnership provided a convergent forum that brought together complementary expertise in order to catalyse new research and innovation of importance to society. 3U Partnership supported a number of cross-disciplinary research collaborations including:

- **3U Diabetes:** This consortium aligns a number of interlinked research activities into this chronic and costly condition. Researchers in Maynooth University are identifying the molecular mechanisms by which cells become insensitive to insulin, whilst DCU researchers view the issue at a “whole- body” level, and RCSI brings the clinical and patient perspective. The annual 3U Diabetes 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.
- **3U Stem Cell and Tissue Engineering**  
**Research** group use complex biomaterial scaffolds to support regeneration of cells and tissue. This group combines expertise in bio-scaffolds from RCSI with stem cell expertise in DCU and an understanding of immunology and the mechanisms by which the immune system reacts to transplanted material at Maynooth University.
- **3U Human Disease Proteomics** group brings together a suite of experts in ‘proteomics’, or the study of protein profiles, to look at cancer, diseases of the lung and eye, and what happens when we get infected by a fungus or a bacterium.

Researchers within the group have long-standing expertise in studying protein signatures in disease e.g., cystic fibrosis and clinically important fungal infections. Working together offers the researchers the chance to pool resources and intensify efforts in areas that overlap.

- **3U Translational Cancer** researchers from DCU, RCSI and industry draw on a broad range of complementary expertise in lung, breast and paediatric cancers in order to turn scientific and clinical findings into real, practice-changing methods that can be used in the fight against cancer.
- **3U Neuroscience** brings together three pre-established and internationally-competitive research centres as the Centre for Excellence in Neurodegeneration (CoEN). These three centres are the Centre for the Study of Neurological Disorders at RCSI; International Centre for Neurotherapeutics (ICNT) at DCU and Neuroanalytics plus the associated spin-out company, Cerebro, at Maynooth University.
- **3U Global Health** brings together a broad spectrum of inputs, understanding and teamwork across many different academic and professional disciplines in 3U Partnership, combining scientific, engineering, medical, sociological and anthropological expertise to develop appropriate technologies for the developing world and to support countries and communities to establish sustainable solutions for their health and development.

### 3U Research and Horizon 2020 Success

The EU framework programmes for research and innovation have long been a priority for each of the 3U Partners. Capitalising on 3U's research partnerships, the Partners have strategically mobilised their collective research strengths to deliver on two significant Horizon 2020-funded projects, namely:

**DRIVE** (Diabetes Reversing Implants with enhanced Viability and long-term Efficacy): DRIVE is a 4-year, €8.9 million project funded by the EU's Horizon 2020 research and innovation programme under grant agreement No: 645991. Co-ordinated by Dr Gary Duffy of National University of Ireland, Galway (and previously RCSI), this EU project brings together stem cell biologists, experts in advanced drug delivery, research scientists, clinicians and research-active companies to work together to address the challenges of treating diabetes using islet transplantation.

The EU DRIVE consortium harnesses the expertise of the 3U Diabetes and 3U Stem Cell and Tissue Engineering Research groups including RCSI clinicians Professor Seamus Sreenan and Dr Diarmuid Smith, Consultants in Diabetes and Endocrinology along with DCU researchers Professor Martin Clynes, Dr Finbarr O'Sullivan and Dr Laura Breen.

**WATERSPOUTT** is a major international research project involving 3U Global Health Researchers from DCU, Maynooth University and RCSI which was awarded €3.6 million by the EU under the Horizon 2020 research and innovation programme under grant agreement No: 688928. WATERSPOUTT is focused on developing low-cost technologies, such as Solar water disinfection (SODIS), to reduce the number of people worldwide who rely on unsafe drinking water by using sunlight to kill harmful microbes. The WATERSPOUTT project aims to design, pilot and bring to market three novel solar-based technologies involving solar rainwater reactors, solar jerry cans and solar-ceramic filtration.

It is estimated that the WATERSPOUTT technologies will impact more 102 million potential end-users in Africa and a further

50 million others in Asia, Europe and Latin America. The project's multinational consortium involves researchers from the 18 collaborating institutions across Europe and Africa. It is coordinated by RCSI's Professor Kevin McGuigan and also involves researchers from Maynooth University, led by Professor Honor Fagan, and DCU led by Dr Brid Quilty as part of the 3U Global Health research programme.

### 3U PhD Hub

The **3U PhD Hub** is a collaborative endeavor of 3U Partnership which provides a matching service that helps PhD candidates find the right PhD programme and supervisor in one of the three Partner Institutions - DCU, Maynooth University and RCSI. The **3U PhD Hub** showcases over 280 **current** PhD research opportunities within the 3U Partner Institutions. It is open to graduates, researchers and industry professionals across a range of disciplines.

The **3U PhD Hub** provides advice to graduates about what is required to apply to a particular PhD programme, what it is like to study in one of the 3U Partner Institutions. The Hub also assists potential candidates identify potential PhD funding opportunities or scholarships that may be available to support students during their studies.

The **3U PhD Hub** is an opportunity to advertise research PhD opportunities to an international audience of students. As the **3U PhD Hub** is an actively managed service. It aims to ensure that only PhD candidates that meet the relevant academic requirements of a PhD project are forwarded for consideration by a Principal Investigator. Both funded and unfunded PhD positions can be advertised through the 3U PhD Hub.

The aim is to widen the pool of applicants from the international market to ensure that the Principal Investigator can choose the best.

[www.3uphithub.ie](http://www.3uphithub.ie)

## 3U EDUCATION

A key priority for each member of 3U Partnership is to deliver exceptionally high quality education to students.

### 3U Leadership in Education and Health Professions Annual Symposium

The 3U Leadership in Education and Health Professions Annual Symposium has been a vibrant annual event that celebrated the postgraduate research work of students from the Postgraduate Diploma in Educational Leadership (Tóraíocht) offered by Education Department Maynooth University, in partnership with Professional Development Service for Teachers' (PDST) and RCSI (Institute of Leadership) and from MSc programmes in Leadership delivered by and DCU's School of Educational Studies and the DCU Business School, who presented insights from leading change projects in teaching & healthcare professions. Past keynote speakers have included; Emeritis Professor Richard Pring, University of Oxford, Dr Harold Hislop (Chief Inspector, Department of Education and Skills); Mr Dessie Farrell, CEO of the Gaelic Players Association; Dr Sean Ruth, Organisational Psychologist, Mr John Farrelly (Deputy Chief Inspector of Social Services, HIQA) and leadership expert Professor Kathryn Riley (Institute of Education, University College, London).

### 3U Peer Observation of Teaching Pilot Project

This pilot project is a collaboration between the Health Professions Education Centre, RCSI (Dr Martina Crehan); the Teaching Enhancement Unit, DCU (Dr Muireann O'Keeffe & Dr Pip Fergusson) & the Centre for Teaching & Learning in Maynooth University (Dr Morag Munro). Participants from across the 3U Partners engaged in peer observation of teaching and reflection supported by a process which included liaison with designated module tutors for feedback on reflective

writing and a number of support workshops. The pilot project ended in May 2017, at which point an evaluation was conducted with a view to future iterations of the module.

### 3U NSTEP National Initiative in STEM Education and Practice

3U Partnership established 3U NSTEP, the National Initiative in STEM Education and Practice, in order to encourage research into teaching and learning at university level. The 3U NSTEP projects examine many different aspects of STEM education 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. In 2016, 3U Partnership published the research outputs of the eight NSTEP Strand 1 research projects, all of which advance STEM pedagogy and will improve the educational experiences of STEM students in each of our partner institutions.



*Dr Ruth Davis, Director of 3U Partnership with Dr Ann O'Shea, Maynooth University at 3U NSTEP Stand 1 Publication Launch in July 2016*

## 3U PROFESSIONAL DEVELOPMENT

From the start, 3U Partnership has sought to encourage the professional development of staff and academics both from within and without the 3U Partner Institutions. In this context, 3U has delivered a range of Professional Development master classes and intensive study programmes. These include:

- **3U Healthcare Ethics & Law Master Class** 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.
- **3U Innovediate – Advanced Research Communication Skills 2016** - a four-day Summer Institute 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 2017** – An advanced Communication Skills workshop supporting Public Patient Involvement in Research.
- **3U Forum on Professionalism across the Professions** – A forum jointly organised by 3U Partnership and the Law Society of Ireland examining what it means to be a professional today with a particular focus on professionals working in the medical, legal and academic sectors.

### 3U Public Lectures

3U Partnership has organised a number of topical public lectures. In particular, 3U was particularly excited to welcome leading US Sociologist, Professor John Bellamy Foster to Dublin to present the 2016 Burns Sisters' 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" 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.

3U Partnership also welcomed the bestselling author of "Bad Science", Dr Ben Goldacre, who 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. 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.

## 3U PATHWAYS

The 3U Pathway University Foundation Programme and the 3U Pathway Postgraduate Foundation Programme were the main 3U initiatives to attract international students to study at the 3U partner universities. By building on the reputation of the three partner institutions, the 3U Pathway Programmes quickly gained recognition and credibility amongst potential students, Cultural Bureaux and education agents to become a viable business. Both programmes aimed to prepare and equip international students and graduates with the knowledge, skills and confidence to flourish in their undergraduate or postgraduate study at DCU, Maynooth University or RCSI. The programmes attracted international students who understood the value of how an internationally recognised qualification could enhance their career prospects and their own personal development. Progression to the 3U Partner universities was high as the students were well prepared for university life by the 3U Pathway teaching staff.

### 3U Pathway University Foundation Programme

The 3U Pathway University Foundation Programme (UFP) prepared 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 developed their English language proficiency, their knowledge of their chosen academic subjects as well as their communication and study skills. Each year, there were two cohorts of students onto the programme i.e., September and January. The majority of students progressed to undergraduate study at the 3U Partners. One of the key strengths of the programme was the diversity of the student body with students coming from Bangladesh, China, Costa Rica, Japan, Jordan, Kenya, Kuwait, Malaysia, Nigeria, Oman, Russia, Saudi Arabia and South Africa.



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### **3U Pathway Postgraduate Foundation Programme**

In 2015/16, 3U Pathways piloted the 3U Pathway Postgraduate Foundation Programme (PFP) as an intensive programme to provide international graduates with a vital bridge between their undergraduate education and the requirements for postgraduate study (Masters or PhD) at Maynooth University or RCSI. The programme was unique in that it offered international graduates a guaranteed pathway to postgraduate study at both partner institutions, thereby, driving postgraduate recruitment and contributing to a rich intercultural postgraduate student body.

### **Relationship with Emerald Cultural Institute**

3U Pathways forged a strategic relationship with Emerald Cultural Institute (ECI) for the provision of English language teaching, a dedicated campus and a range of student facilities and services. This relationship with ECI proved to be fortuitous for the 3U Pathway students as they benefitted from a positive learning environment and experience at ECI's Milltown campus.

### **Sale of 3U Pathways to EduCo International Group**

The 3U Pathways Programmes demonstrated 3U Partnership Board's commitment to the internationalisation agenda and proved itself to be a viable business. In March 2017, the 3U Partnership Board sold the 3U Pathways Programmes to EduCo International Group, an Irish-Australian partnership dedicated to marketing and recruiting for the new Pathway Programmes should yield greater international student enrolments for both universities. With clear expectations and communication between EduCo and the universities, the EduCo Pathway Programmes can build on the solid foundations laid by the 3U Pathway Programmes and attract more international students to study at both universities.

### **Pre-sessional English Language Programmes**

In addition, 3U Pathways offered Pre-sessional English Language Programmes, aimed at international students who wished to pursue undergraduate or postgraduate study at DCU, Maynooth University or RCSI but who required additional English language support. Both programmes were delivered on campus in DCU and Maynooth University and effective in preparing students for progression to undergraduate or postgraduate study at DCU or Maynooth University.

3U Pathways would like to acknowledge 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 3U Pathway Programmes.

# Appendix 1. Objectives and Achievements of 3U Partnership (2014 – 2017)

## 1. To enrich the academic opportunities available to the students by developing a range of joint degree programmes as well as broadening their choice of options

### 1.1 Establishment of two 3U Joint Masters Programmes

- 3U Joint MEng in Digital Health and Medical Technology (DCU, Maynooth University, RCSI)
- 3U Joint MSc in Humanitarian Logistics and Emergency Management (DCU, MU)

### 1.2 3U Programme of Professional Development

- 3U Leadership Masterclass (Maynooth University, DCU, RCSI)
- 3U Medical Ethics and Law (Assisted Decision-Making) (Maynooth University, DCU, RCSI)
- Forum for Professionalism across the Professions (Maynooth University, DCU, RCSI, with the Law Society of Ireland)

### 1.3 Postgraduate and Researcher Training

- 3U Innovediate – Advanced communication skills for researchers (Maynooth University, DCU, RCSI)

## 2. To be more effective in developing solutions to major issues confronting citizens today in areas such as healthcare, sustainability, globalization and technology

### 2.1 Establishment of enduring 3U Research Collaborations\*

- 3U Diabetes
  - Participation in H2020 DRIVE project (€8.9m funding)
  - High profile annual conference
- 3U Tissue Engineering and Stem Cell
  - Participation in H2020 DRIVE project (€8.9m funding)
- 3U Proteomics and Human Disease
  - Award of SFI research infrastructure grant
- 3U Translational Cancer
- 3U Neuroscience (CoEN)
  - Participation in joint funding initiatives
- 3U Global Health
  - Participation in and coordination of H2020 Project WATERSPOUTT (€3.6m funding)

\* *Joint publications achieved for all of the above*

### 2.2 3U Partnership support for new research funding proposals

### **2.3 Establishment of a new 3U network “Professionalism across the Professions”**

- Award of Irish Research Council New Horizons Research Grant
- Establishment of CPD Forum for Professionalism across the Professions (2017)
- Joint publications

## **3. To attract more international students to study in Ireland through 3U’s bespoke 3U Pathway Programmes**

### **3.1 Establishment of 3U Pathways Programmes (2014-2017)**

- 3U Pathway Undergraduate Foundation Programme (First student intake 2014)
- 3U Pathway Postgraduate Foundation Programme (First student intake 2015)
- 3U Pathway Pre-sessional Programmes
- High levels of student progression to partner institutions
- Sale of Pathways to EduCo in March 2017

### **3.2 Development of 3U PhD Hub (April 2017)**

- Potential to develop business equity

## **4. To enhance the quality of the learning experience throughout the education systems both through research in education and by sharing advances into best practice in teaching and learning.**

### **4.1 3U Leadership in Education Symposia (DCU, Maynooth University, RCSI [2014-2016])**

### **4.2 3U NSTEP Strands 1 & 2**

- 3U NSTEP publication of Strand 1 research outputs
- Establishment of new networks of collaboration across 3U Partners

### **4.3 Development of the 3U Joint Module in Peer Observation of Teaching**

## **5. Development of 3U Partnership Public Profile**

### **5.1 Establishment of an active and vibrant 3U Partnership Website and social media platform**

### **5.2 Publication of 3U Partnership Annual Reports (2014/15; 2015/16)**

### **5.3 Public Lectures (Ben Goldacre; John Bellamy Foster)**

### **5.4 Annual Conferences (3U Diabetes, 3U Leadership)**

### **5.5 Positive Government & State Agency profile**

## **6. 3U Governance**

### **6.1 Establishment of formal Governance Boards for 3U Partnership**

- 3U Partnership Strategy Board
- 3U Collaboration DAC Board of Directors

### **6.2 Establishment of the protocol for the management of 3U Joint Awards**



**3U**  
PhD  
HUB