

Trinity College Dublin

---

Towards a Future  
Higher Education  
Landscape

---

July 2012

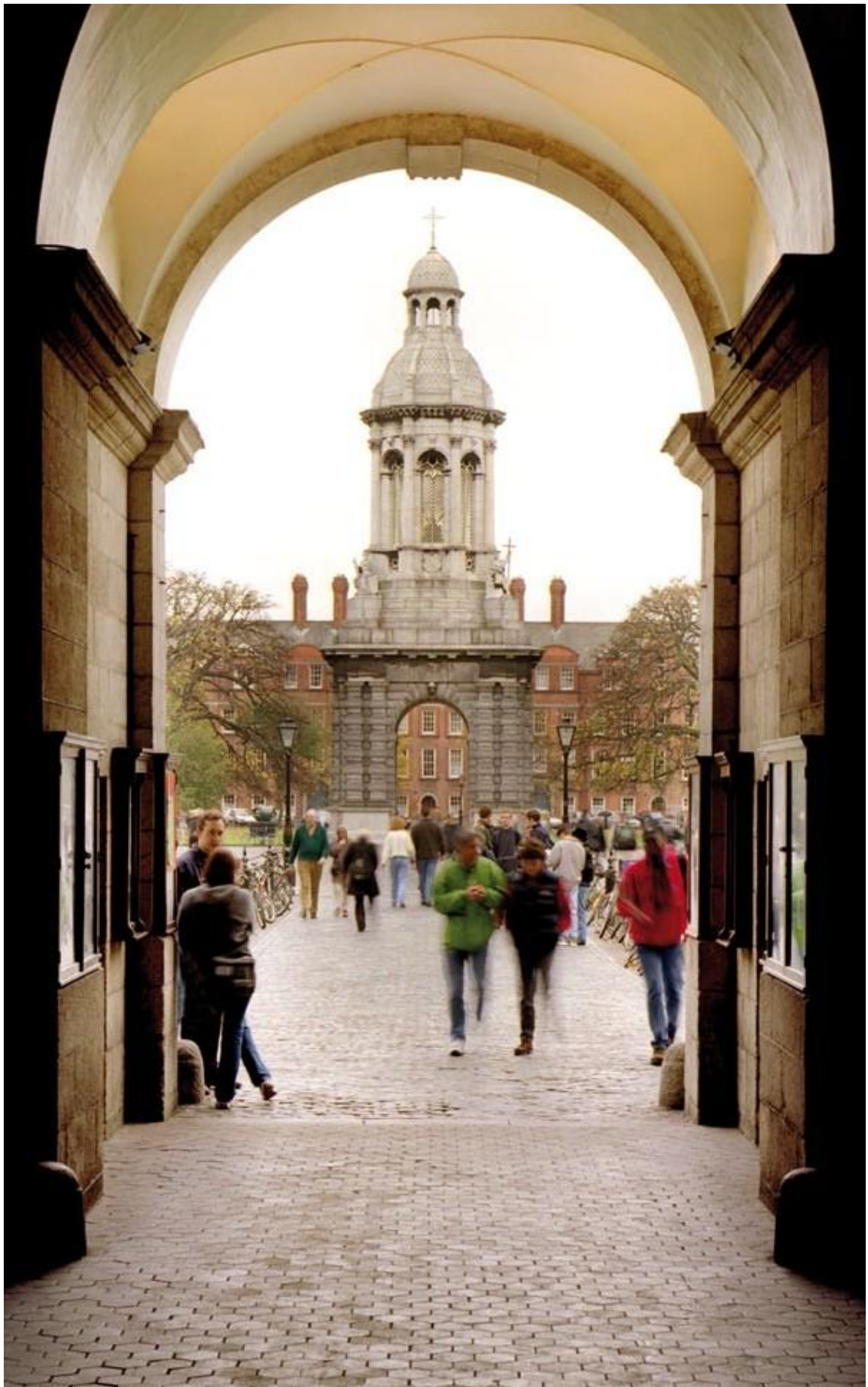


TRINITY COLLEGE DUBLIN  
COLÁISTE NA TRIONÓIDE, BAILE ÁTHA CLATH

TCD  
UNIVERSITY  
OF DUBLIN

## 1. Executive Summary

---



# Executive Summary

The mission of Trinity College Dublin is:

to engage our students and the broader society in the quest for knowledge, seeking to achieve excellence in all we do, and responding with creativity and imagination to the challenges and opportunities of a shared future.

---

By succeeding in this mission we will achieve our vision to be a university of global consequence. Trinity College Dublin is recognized internationally as Ireland's leading university. Building on its existing distinctive success Trinity has the potential to further strengthen its international standing and ultimately benefit the reputation of the Irish educational system.

The core activity of a leading university is focused on generating knowledge and utilizing it for the greater good of society. In pursuing this core mission in a globally competitive way Trinity College plays an important role in meeting societal goals, and in developing the national economy. Trinity's research strategy aligns with the goals of the National Research Prioritisation Exercise<sup>1</sup> and our research strengths have been identified based on the existence of a critical mass of world-class researchers. Results in these priority areas will serve to enhance Trinity's and Ireland's reputation as well as offering opportunities for economic development.

Trinity College is committed to providing our students with a first-class, internationally-competitive educational experience. Our curriculum seeks to develop leadership skills; our graduates contribute to the economic, cultural and intellectual life of society and are active global citizens. This is achieved through a research-led curriculum where students benefit from teaching provided by academics active in research and scholarship and at the forefront of their disciplines. Trinity has a full-strength arts and sciences programme of courses and remains committed to the principle of a university that offers the full spectrum of subjects and facilitates the interdisciplinary synergies that develop. Demand for our programmes, both our four-year undergraduate degrees and our postgraduate courses, is high and we

<sup>1</sup> Report of the Research Prioritisation Committee, March 2012  
[http://www.forfas.ie/media/ffs20120301-Research\\_Prioritisation\\_Exercise\\_Report.pdf](http://www.forfas.ie/media/ffs20120301-Research_Prioritisation_Exercise_Report.pdf)



## 1. Executive Summary

---

consistently attract highly-qualified students. Within the national context one of Trinity's distinct features is its position as a centre of excellence for postgraduate provision. It is at the forefront of graduate education in Ireland and provides a wide range of taught Masters' courses and doctoral research programmes. We envisage extending our provision at the postgraduate taught course level, provided both to full-time and part-time students, as we respond to the need for continuous professional development.

Trinity College Dublin is distinctive in being Ireland's most globalised university as evidenced by independent metrics for international research collaborations. The new Global Relations Strategy will build on the national campaign for internationalization. We will aggressively build global partnerships with like-minded leading universities for student exchanges, and we will increase significantly the recruitment of non-EU students by building on existing relations in North America and developing new relations in key areas of global growth such as India and China.

Trinity's engagement with society is driven by our role in advancing knowledge and using that knowledge for the benefit of all. Hand in hand with our international outlook is a commitment to contribute to the development of Dublin as an international city of learning, culture and innovation. As part of that commitment we will now combine our resources with the Dublin Institute of Technology to create a Global City Innovation Initiative which will create a flexible environment in which students, researchers and other stakeholders (including the City of Dublin) come together to respond to pressing global issues of our time by experiment, design and the discovery of new solutions, products, services and interventions.

Trinity College Dublin has always collaborated with educational institutions with a shared mission and ethos. We have, for example, shared degrees with the Dublin Institute of Technology, the Royal Irish Academy of Music and University College Dublin. Using the impetus of the 'Landscape' document we have offered a new relationship, up to and including merger, to the Church of Ireland College of Education and the Marino Institute of Education. The Royal Irish Academy of Music has formally requested that it become an Associated College of Trinity College Dublin (see Appendix 8) and this request will be progressed through the formal governance structures in the autumn.

Through the Innovation Alliance, Trinity College Dublin and University College Dublin have combined resources to develop flagship joint structured PhD programmes. These programmes established innovation and entrepreneurship alongside excellence in research and education as an integral element of the PhD. Under the auspices of the Alliance the two institutions collaborated for Cycle 5 of the Programme for Research in Third Level Institutions which cemented significant graduate education platforms between both. It is now timely to extend and enhance cooperation across the institutions and a process has been initiated to evaluate opportunities for collaboration in education. A top-down/bottom-up process has commenced with the goal of strengthening collaboration in teaching and learning between the institutions. The disciplines included in this process to date are Business, Computer Science, Education, Engineering, Law, Nursing & Midwifery,

## 1. Executive Summary

---

Psychology, Social Science, Social Work and the Therapies; although this list should not be seen as exhaustive. Formal meetings between Heads of these areas on both institutions have taken place and potential teaching alliances have been considered; these will continue through 2012/13.

As requested, a review of Trinity College's activities in the area of creative arts and media provision is included in this document (see Appendix 9). Trinity has a long-term strategy for developing the Creative Arts, Culture and Creative Technologies in intensive collaboration with strong partners in education, culture and technology across the city of Dublin. The strategy provides a mechanism to align the diverse disciplinary and collaborative programmes and initiatives underway under a single umbrella to greatly enhance the potential for intra- and inter-institutional collaboration for maximum educational, research and performance impact.

Trinity College is determined to play its full part in meeting the challenges posed by the National Strategy for Higher Education. We can best meet those challenges by succeeding in our vision to be both a university of global consequence and a university that is fully engaged in the national context. We will continue to collaborate with like-minded educational institutions to deliver a higher education system that meets the needs of students and society.

## Contents

1.	Mission	8
1.1	Research Activity and Knowledge Exchange	12
1.2	Teaching and Learning	17
1.3	International Orientation	22
1.4	Regional Engagement	26
2.	Student Profile	30
3.	Clusters	36
3.1	Dublin Regional Higher Education Alliance	37
3.2	National Digital Learning Resources	37
3.3	Creative Dublin Alliance	38
3.4	Molecular Medicine Ireland	38
3.5	National Institute for Bioprocessing Research and Training	38
3.6	National Digital Research Centre	38
3.7	Creative Arts, Technologies and Culture	38
3.8	Technology Research for Independent Living	39
3.9	Integrated NanoScience Platform for Ireland	39
3.10	Institute of Biomedical Informatics	39
3.11	Centre for Synthesis and Chemical Biology	39
4.	Consolidation	40
4.1	The Loyola Institute	40
4.2	Associated Colleges of Education	41
5.	Existing Collaboration and Collaborative Initiatives	44
5.1	University College Dublin	45
5.2	Dublin Institute of Technology	51
5.3	Royal Irish Academy of Music	52
5.4	Dublin Dental University Hospital	52
5.5	Trinity Health Ireland	53
5.6	Church of Ireland Theological Institute	53
5.7	Economic and Social Research Institute	53
5.8	The Lir Academy	53

5.9 Carlow College 54

5.10 Dublin Institute for Advanced Studies 54

#### Appendices

Appendix 1 Trinity College Dublin Research Impact  
Relative to National and World Averages

Appendix 2 Trinity College Dublin Corporate  
Collaborations 2000-2011

Appendix 3 Recent Trinity College Dublin Campus  
Companies

Appendix 4 TCD Strategic Research Themes Mapped  
to Research Prioritisation Exercise Priority Area

Appendix 5 Agreement with International Universities

Appendix 6 Sample List of Community Partners

Appendix 7 List of Campus Companies Housed in Trinity  
Technology and Enterprise Campus 2012

Appendix 8 Proposal for the RIAM to become  
an Associated College of TCD

Appendix 9 A Report on the Creative Arts and Media  
at Trinity College Dublin

Appendix 10 Memorandum of Understanding in relation  
to a Strategic Partnership between TCD  
and Carlow College





## 1. Mission

---

The vision that Trinity College Dublin has chosen for itself is that it will be a university of global consequence.

---

We will achieve this by succeeding in our mission, which is:

Through our research and teaching, we engage students and society in the quest for knowledge, seeking to achieve excellence in all we do, and responding with creativity and imagination to the challenges and opportunities of a shared future.

This mission is achieved by continuing to attract students and staff of the highest calibre, and by demonstrating a robust commitment to freedom of intellectual enquiry and expression.

This mission is maintained through valuing the following:

- the university as an interactive, multidisciplinary community with a passion for ideas and a love of learning,
- opportunities to achieve excellence in a challenging, yet nurturing environment,
- the inclusivity of our community, which offers equality of access and opportunity to all, seeking out and recognising talent wherever it exists,
- international recognition for our research and the building of academic strengths through teamwork and collegiality,
- the interdependence of teaching and research, and the diversity of our research and teaching methods,
- creativity and innovation, including the development of an entrepreneurial spirit among staff and students, to deliver the widest benefit to society,
- national and international collaborations forged by students, staff, alumni and friends,
- the engagement of staff and students in public discourse,
- our role as a creative hub for Ireland in the heart of Dublin city,
- our use of the most effective instruments to apply our values, including:
  - ~ autonomy in the management of resources, matched by clear and transparent accountability to society, and
  - ~ academic freedom to pursue all avenues of enquiry and to disseminate the results of research and scholarship.

## 1. Mission

---

In the context of this vision to be a university of global consequence, Trinity is distinctive in the degree of success it has already achieved and the potential to further strengthen its international reputation to the benefit of the city of Dublin, to Ireland, and the world.

Trinity College Dublin is recognised internationally as Ireland's leading university in all relevant rankings. Trinity has top 50 rankings in four subjects and top 100 rankings in a further 14 areas in the recently published QS Subject Rankings 2012<sup>2</sup>.

### Trinity's Top 50 Rankings:

- 14th in the world in English Language & Literature
- 38th in the world in History
- 40th in the world in Geography
- 45th in the world in Politics & International Studies.

### Trinity's Top 100 Rankings:

- Biological Sciences
- Chemistry
- Computer Sciences & Information
- Economics & Econometrics
- Education
- Electrical Engineering
- Law
- Mathematics
- Medicine
- Modern Languages
- Philosophy
- Physics & Astronomy
- Psychology
- Sociology

However, notwithstanding this success in national terms, it cannot be considered satisfactory that Ireland does not have a university in the top 100 in the Times Higher rankings. While the nature of the rankings may be contested, these have now emerged as crucial metrics for the success or otherwise of national higher education systems. In a country that aims to have a 'knowledge economy' there would be great benefit in terms of competitiveness to the system as a whole of having a leading university in the top 100. Our nearest neighbour, the UK, has 15 such universities and competitor small countries for FDI (Singapore, Finland, Belgium, the Netherlands) also have representation.

To compete for Ireland on the world stage, we must further develop those factors that lead to globally competitive universities – this will evolve Trinity's distinctiveness contributing to the overall effectiveness of Ireland's higher education

<sup>2</sup> <http://www.topuniversities.com/university-rankings/world-university-rankings/2012/subject-rankings>, accessed 11 July 2012.

## 1. Mission

---

system. Trinity will be globally competitive AND fully engaged locally in Ireland, and in Dublin – Ireland’s capital city.

To underpin its role in the future of higher education both internationally and nationally, Trinity has recently committed to considerable investment in new systems designed to enhance administrative capability and efficiency in order to support the core mission of education and research. The eStrategy Programme commits the College to an investment of over €20m in its Student Administration, Finance and HR Systems and Enterprise Architecture between 2011 – 2014 with the objective of streamlining processes and procedures and delivering a reduced operating cost base in the medium to long term.

Within the national contexts one of Trinity’s distinct features is its position as a centre of excellence for research and postgraduate provision. Postgraduate students are attracted to Trinity by the opportunity to work with world-class researchers and accordingly we have the highest number of PhD enrolments and more postgraduate output. Trinity’s portfolio of high-quality research activity permeates and informs its distinctive approach to education through research-led teaching. Our undergraduate degree programmes provide a strong broad base of knowledge leading in the fourth year to advanced expertise in the subject, enabling graduates to generate new ideas and concepts, applying knowledge to new contexts. Employer’s perceptions of our graduates are influenced by the extent to which they meet national and international labour market needs. These perceptions affect not just our reputation but the global rankings and, ultimately, the national reputation abroad. In a 2011 survey of employers<sup>3</sup> 65% identified ‘specialist subject knowledge’ as the most important attribute they seek in Trinity graduates.

In the remainder of Section 1 we describe how Trinity’s distinctiveness is established to be globally competitive and locally-engaged. This is done under the four headings requested:

### 1.1 Research activity and knowledge exchange

Distinctiveness by prioritising fields that leverage Trinity’s reputational strengths, infrastructural resources, and the interdisciplinary environment;

### 1.2 Teaching and learning

Distinctiveness through the research-led curriculum educating Ireland’s brightest minds to be socially-engaged, and creative citizens.

Note that 1.1 and 1.2 form the core mission in education and research and are interdependent – they mutually reinforce each other through Trinity’s commitment to research-led teaching.

### 1.3 International orientation

Distinctiveness through our new global relations strategy which will recruit high-calibre international students from around the world, establish bilateral relationships with the highest-ranked universities, and engage with the ‘Trinity alumni diaspora’ to benefit student recruitment and philanthropic fundraising.

<sup>3</sup> [http://www.tcd.ie/Careers/downloads/Current\\_Annual\\_Report-Work.pdf](http://www.tcd.ie/Careers/downloads/Current_Annual_Report-Work.pdf)

## 1. Mission / 1.1 Research Activity and Knowledge Exchange

---

### 1.4 Regional engagement

Distinctiveness in having all 32 counties of Ireland as 'our region', yet embedded in the heart of Ireland's capital as the University of Dublin. Serving the local community through access initiatives and serving the city through civic engagement.

### 1.1 Research Activity and Knowledge Exchange

## Ireland's premier university for research activity.

Irish government policy remains committed to research and development, with the ultimate goal of growing a "smart economy" to provide employment and careers in a country with the youngest demographic in Europe. Therefore for a university like Trinity College Dublin, generating knowledge and transferring this knowledge is the core activity. In pursuing its core mission in a globally competitive way, Trinity College Dublin will continue to play an important role in the achievement of government strategy and in the future generation of a knowledge-based economy.

The following data demonstrates how Trinity is succeeding in research activity and knowledge exchange:

#### Research Rankings Highlights

Trinity is ranked

- 44th in the World in terms of research impact (citations per paper)(Times Higher Education Ranking 2011)
- 63rd in the World, 10th in Europe, based on research performance (Leiden World University Ranking 2011)
- in the top 1% of research institutions in the world in 17 fields (Thomson Reuters Essential Science Indicators), an increase of almost 150% from 2004
- 65th in the World, and 21st in Europe, across all indicators (QS World University Ranking 2011).

In terms of Thomson Reuters' Impact Relative to Subject Area (ie. impact normalised by subject), Trinity is the only Irish university that outstrips the 'Ireland – totals' score in every one of the high level OECD Fields of Science. In addition, Trinity outstrips the international benchmark for Impact Relative to Subject Area by a wide margin in each of the high level OECD fields:

Engineering and Technology, Medical and Health Sciences, Natural Sciences, Agricultural Sciences and Social Sciences<sup>4</sup>.

Furthermore, the extent to which Trinity's research impact outstrips the international benchmark for Impact Relative to Subject has been analysed for every one of the 250+ Web of Science fields using Thomson Reuters InCites database.

The results show the comparative 'Impact relative to subject area' of Trinity College Dublin for both the 'Ireland Totals' (i.e. average for Ireland) and the World benchmark per subject area and demonstrate Trinity's national and international impact

<sup>4</sup> <http://researchanalytics.thomsonreuters.com/incites/>



## 1. Mission / 1.1 Research Activity and Knowledge Exchange

---

and contribution to discipline across the vast majority of these fields (see Appendix 1).

### Knowledge Transfer Highlights<sup>5</sup>

- 400+ collaborations with companies. (Details of co-authorship with industry are provided in Appendix 2.)
- 76 campus companies formed since 1985, 29 companies were formed in the last 5 years, an average of 6 per annum. (See Appendix 3)
- Over 300 invention disclosures have been received in the last 10 years
- In 2011, Trinity granted full commercial licences to 4 Trinity spin-outs, 4 Irish SMEs, 2 US companies, and 2 multinational companies. Five evaluation licences were concluded
- In 2011 Trinity entered a total of 109 contracts with industry to conduct a wide range of collaborative research and research services projects.

Trinity College Dublin has a flexible approach to granting licences for research, evaluation ± option-to-licence or full commercial use on an exclusive or non-exclusive basis as appropriate and supports socially responsible licensing through endorsement of the In the Public Interest: Nine Points to Consider in Licensing University Technology<sup>6</sup> document.

### Strategy for Knowledge Generation and Transfer

Trinity's Strategy for Knowledge Generation and Transfer in the period 2009-2014 encompasses the broad activities of research, innovation and entrepreneurship across all disciplines. These broad strengths are required for our distinctive research-led teaching strategy for our educational mission:

1. Attract and develop world-class principal investigators
2. Diversify research funding sources
3. Strengthen Trinity Research Institutes and Centres
4. Further promote research quality
5. Foster multi-disciplinary research consortia
6. Develop a new model for intellectual property management
7. Provide new research infrastructure

Trinity's research strategy and vision for research excellence is achieved by maintaining a breadth of research endeavour built upon the research programmes of individual researchers. All academics and students, both undergraduate and postgraduate are members of one of Trinity's schools. Through the evolution of Trinity's research strategy, academic faculty within Schools have organically associated and self-organized towards multi- and inter-disciplinary thematic areas of critical mass and scale.

<sup>5</sup> See 1.4 below for more information about the Trinity College Technology Transfer Office and the Trinity Technology and Enterprise Campus.

<sup>6</sup> [https://www.autm.net/source/NinePoints/ninepoints\\_endorsement.cfm](https://www.autm.net/source/NinePoints/ninepoints_endorsement.cfm)

Trinity College Dublin recognises that selecting proven research strengths in core priority areas to build on will achieve the goal of delivering research of consequence and recognition as a world reference point in such areas over time.

Each of these areas was identified based on the existence of a critical mass of world-class researchers in the area in Trinity and the existence of a unique research focus that distinguishes Trinity's research on a worldwide basis. These areas typically address issues of global societal and/or economic importance and results in these areas will serve to enhance the College's and Ireland's reputation for delivering research of consequence as well as offering opportunities for economic development. These areas map well to Ireland's stated research priorities as well as global challenges identified, for example, in the formulation of the European Commission's Horizon 2020 programme.

Each research activity is embedded within one or more of five priority research themes<sup>7</sup>. The priority themes have associated major research programmes, and beneath these programmes are the thematic areas which the College research community has advanced on the basis of established activity and quality. These multi- and inter-disciplinary thematic areas are aligned with key areas of research strength across Trinity's Schools and Research Institutes (TRIs).

A Trinity Research Institute (TRI) represents an area of acknowledged research excellence and has at its core a critical mass of scholars/principal investigators of acknowledged high international standing in that area. TRIs are recognised by the university as sustainable, long-term strategic resources. Current TRIs are: Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN), Institute for International Integration Studies (IIIS), The Long Room Hub (LRH), Trinity Biomedical Sciences Institute (TBSI) and Trinity College Institute of Neuroscience (TCIN).

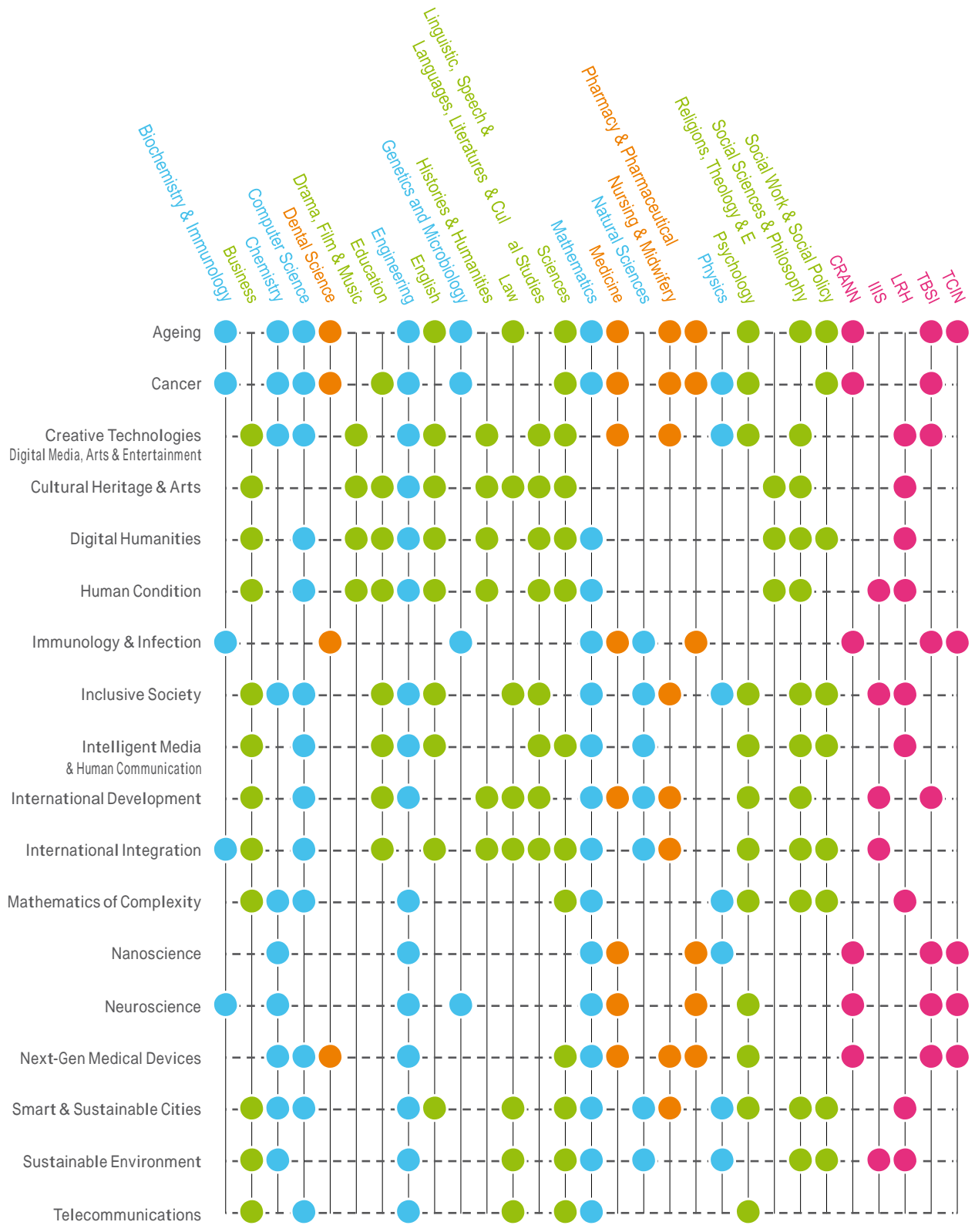
The diagram below presents Trinity College Dublin's distinctive set of research themes and the alignment of our academic units (Schools and TRIs) to each theme. Significant non-exchequer funding (from industry, the EU and philanthropic sources) has been generated around these areas in the past and will continue to do so in the future.

Trinity's research themes are also mapped to the National Research Prioritisation Exercise Priority Areas (Appendix 4).

---

<sup>7</sup> European and International Integration, Culture and Creative Arts, Materials and Intelligent Systems, Biosciences and Translational Research, Transport, Energy and Environment.

# 1. Mission / 1.1 Research Activity and Knowledge Exchange



Alignment of Thematic Areas and Academic Units

- Faculty of Arts, Humanities and Social Sciences
- Faculty of Engineering, Mathematics and Science
- Faculty of Health Sciences
- Trinity Research Institutes

## 1. Mission / 1.1 Research Activity and Knowledge Exchange

---

As part of the implementation of Trinity's Research Strategy, activities addressing each of the seven strategic actions are in train including:

- Developing a strategic plan for each of the 18 thematic areas, lead by a local champion
- Deploying locally based research programme officers to support research development in the thematic areas – best practice across successful universities in Europe has shown that a hybrid approach (a mixture of centralised and decentralised supports) delivers the best Research Development Office support services
- Activity has been ramped up to ensure diversification of Trinity's funding base with a focused programme on FP7 and Horizon 2020 – specifically the ERC programme. US funding opportunities have also been identified as an opportunity to expand Trinity's collaboration with North America, resulting in new funding streams.

### National and International Research Strategies

Trinity College's research strategy aligns directly with each of the new features of the European Commission's approach to research as embedded within Horizon 2020<sup>8</sup>:

- Coupling research to innovation – from research to retail, all forms of innovation
- Focus on societal challenges facing EU society, eg. health, clean energy and transport
- Simplified access, for all companies, universities, institutes in all EU countries and beyond.

Also in relation to access, Trinity is the first university in Ireland to adopt an Open Access publications mandate, and to commit to 'embrace the principle of Open Access' within our research and innovation strategy as part of the Strategic Plan. This will ensure our institutional readiness to comply with Horizon 2020's requirements for open access to funded research as well as compliance with the Open Access policies of the Higher Education Authority, Science Foundation Ireland, and the other Irish funding councils and the recommendations of the Strategy for Higher Education in Ireland<sup>9</sup>.

In addition, Trinity's research strategy aligns with the goals of the National Research Prioritisation Exercise<sup>10</sup>:

- Research oriented towards the Irish enterprise base
- Research for policy
- Research for knowledge.

<sup>8</sup> Horizon 2020: the EU Framework Programme For Research And Innovation (2014-2020), Brendan Hawdon (DG Research & Innovation European Commission) 2012, [presentation], slide 6.

<sup>9</sup> National Strategy for Higher Education to 2030 pp 48 & 72.

<sup>10</sup> Report of the Research Prioritisation Committee, March 2012, p. 9 [http://www.forfas.ie/media/ffs20120301-Research\\_Prioritisation\\_Exercise\\_Report.pdf](http://www.forfas.ie/media/ffs20120301-Research_Prioritisation_Exercise_Report.pdf)



## 1. Mission / 1.2 Teaching and Learning

---

Every one of the strategic research themes maps to at least one of the fourteen Research Prioritisation Exercise Priority Areas (see Appendix 4.) Almost 50% of our strategic research themes have a direct and major alignment with a specific Research Prioritisation Exercise Priority Area. The remaining 50% of Trinity's strategic research themes have alignments with a range of Research Prioritisation Exercise Priority Areas.

Because of its high level of internationalisation, its globally-significant research impact and its proven record of collaboration, Trinity College Dublin is well-placed to respond to the National Research Prioritisation Committee's recommendation to the research community and the enterprise sector to: 'continue to pursue their endeavours in the context of the wider European and international system within which Irish research is positioned.'

The National Research Prioritisation Committee stipulates that 'the areas that we recommend cannot and should not be pursued within an exclusively national context... They should also link as appropriate to R&D priorities in emerging economies, where many of the new intellectual and business opportunities are likely to be found<sup>11</sup>.'

As Ireland's university on the global stage, Trinity College Dublin is uniquely positioned to leverage these national and international opportunities for research and innovation to achieve institutional, national and European goals, deliver key economic and societal benefits and drive the advancement of knowledge.

### 1.2 Teaching and Learning

Trinity College Dublin is committed to providing our students with a first-class, educational experience, one that will enable them to flourish in a globalised world.

This is achieved through a research-led curriculum which is challenging, dynamic and innovative, both in terms of its content and its delivery. The pursuit of excellence underpins all aspects of our strategy for teaching and learning and the high level of demand for our programmes, together with the positive review from employers, supports the view that Trinity's reputation as a provider of a high-quality educational experience is well-founded.

Our curriculum seeks to develop leadership skills, and to inspire graduates who will contribute to the economic, cultural and intellectual life of society and who will be active global citizens. In this context we constantly renew our curriculum

---

<sup>11</sup> Report of the Research Prioritisation Committee, March 2012, p. 9 [http://www.forfas.ie/media/ffs20120301-Research\\_Prioritisation\\_Exercise\\_Report.pdf](http://www.forfas.ie/media/ffs20120301-Research_Prioritisation_Exercise_Report.pdf)

## 1. Mission / 1.2 Teaching and Learning

---

in line with best educational practice, advances in knowledge and understanding, ensuring it responds to the evolving economic, social and cultural environment.

The distinctiveness of Trinity's teaching and learning lies in its research-led teaching, which is embedded throughout the entire curriculum.

As a result we speak of a single Trinity curriculum rather than of the multiplicity of individual courses that are related to specific disciplines. This reinforces the fact that there are important features common to all courses which create, or attempt to create, a distinctive curriculum for the university as a whole.

The kind of education we offer in Trinity College Dublin is offered by research-intensive universities and many universities around the world aim to attain it, and succeed to a greater or lesser degree. In this globally competitive environment it is essential that Ireland maintains its reputation as a provider of high-quality third-level education, and Trinity's distinctive contribution to this lies in the manner in which it deploys its research excellence throughout the curriculum. Students benefit from teaching provided by academic staff active in research and scholarship and at the forefront of their disciplines. Such academic teachers provide a dynamic view on knowledge, a questioning and sceptical approach to received wisdom that cannot be derived from the study of textbooks alone; furthermore they can provide immersion experiences in the research process through project supervision and research assistantships. Their international collaborations and research networks provide opportunities for high-quality student exchange programmes with other leading universities world-wide.

Such an educational environment is demanding and will appeal to students with the ability and motivation to learn at this level. It is not a kind of education that suits every student – though it should be available to all.

Balance between specific labour market outcomes vs more general formative programmes.

The Trinity undergraduate curriculum aspires to educate active citizens by developing independent and critical thinking skills, and by encouraging our students to play a central role in their own intellectual formation. In order to realise our educational objectives, we have a very clear image in our minds of the attributes we would like to see in a Trinity graduate, in a policy approved by the Board of the University. This is the image of a person who is inquisitive, analytical, reflective, creative, adaptable, widely-read and ethically responsible, with an independent mind and an international outlook. Someone who is articulate, literate and numerate at a level of sophistication that allows them to deploy their abilities to maximum advantage in later life. Many aspects of College life play a part in a student's development of these qualities – only one of which is the academic curriculum. Each student is assigned a tutor from the academic staff to look after his/her general welfare and development. The role of College Tutor is quite separate from the teaching role and emphasis the holistic

## 1. Mission / 1.2 Teaching and Learning

---

approach to education. The importance of extra-curricular activities is kept firmly in mind when determining the appropriate academic workloads of undergraduates.

Our curriculum aims to create these attributes by degree programmes that teach specialised knowledge of a discipline in lectures, seminars, tutorials, and laboratory classes – with an emphasis on small-group teaching. We believe that deep study of a discipline, any discipline, can imbue these attributes. Without deep study it is not easily achieved. We assist our graduates to become life-long learners, always open to new experiences and equipped with a range of skills that ensure flexibility and a capacity to cope with change.

Research-led teaching, commended by the recent IRIU Report<sup>12</sup>, is crucial to achieving our distinctive curriculum, and it reflects the strong research activity in all disciplines of the university. Our policies on research-led teaching are strongly aligned with those of the National Strategy for Higher Education

‘..all students in Irish higher education – both undergraduate and postgraduate – should learn in an environment where research and teaching are closely linked<sup>13</sup>.’

A research-led approach to higher education is concerned not only with the currency of course content and skills formation, but also with the involvement of students in the process of research. This encourages them to become more aware of their learning and its consequences, motivates and encourages them to learn and think more deeply. Their involvement in the research process is facilitated by the use of teaching methods that promote critical thinking, reflection, creativity and innovation, and by structured opportunities to engage with research methods, research problems and primary materials, culminating in the final year independent research project or academic dissertation which is a feature of Trinity’s undergraduate courses. Many students find working on their research project or dissertation to be the most enriching aspect of their undergraduate studies; employers note that the capacity for independent and critical thinking is one of the three academic skills they value most<sup>14</sup>.

Also important is inter-disciplinarity in the formation of citizens who can contribute to public debate in a broad sense; for the last decade the Trinity curriculum encompasses ‘The Broad Curriculum’ where undergraduate students have the opportunity to enrol in modules outside their principal discipline. In 2011/12 over 800 students took optional modules in a wide range of disciplines, and modules including ‘Citizens, Politics and Decisions’, ‘Idea Translation Lab – Future of Synthetic Biology’, ‘Living Sustainably: A complete guide to surviving a changing planet’ and ‘Business Management in the 21st Century’.

<sup>12</sup>IUQB, Institution Review of Trinity College Dublin, June 2012.

<sup>13</sup>National Strategy for Higher Education to 2030, p.55.

<sup>14</sup>Careers Advisory Service, Fit for the Future? Employer Expectations and Perceptions of the Skills of Trinity Graduates, Trinity College Dublin, April 2011.

## 1. Mission / 1.2 Teaching and Learning

---

### Discipline mix in the institution

To deliver a research-led curriculum, with all its attendant benefits, requires a strong base of research across the arts and sciences. In keeping with leading universities around the world, Trinity College Dublin has a full strength arts and sciences programme. In addition there are professionally-accredited courses in education, computer science, psychology, engineering, social work, pharmacy, medicine and allied health therapies, dental science and nursing and midwifery. We remain committed to the principle of a university that offers the full spectrum of subjects and facilitates the interdisciplinary synergies that develop.

Among our distinct programmes not offered elsewhere in Ireland are undergraduate degrees in Engineering and Management, Acting, Deaf Studies, the multidisciplinary programme in Philosophy, Political Science, Economics and Sociology, and joint degree programmes incorporating Russian. The Dental School is one of only two in the Republic of Ireland and the only one in Dublin. Other programmes, while not being unique, are highly distinct within Ireland in their curricular design. An example is our multidisciplinary degree in European Studies; while other degrees in European Studies focus on contemporary institutions, law and business, the Trinity degree puts history, cultural history and political science at the centre to enable a deep understanding of how Europe evolved and took its current shape, and combines this with the study of two languages and a mandatory Erasmus year abroad. Students in Trinity's Science programme specialise in specific disciplines within biology, natural sciences or the physical sciences in the third and fourth years and each distinctive disciplinary curriculum is aligned to the research expertise of Trinity's academic staff to maximise research-led teaching. Within, for example, the biological specialities of the Science course such as the Moderatorships in Neuroscience and Physiology, key research-led components of the curriculum include ageing, neuroimaging and neuroinflammation. Such a curriculum would not necessarily feature as part of such degrees offered by other universities in Ireland or abroad, which would have their own emphases. Advanced teaching, provided by our leading international experts, creates a curriculum that is current, dynamic and unique. Our staff profile facilitates a research-led education with a distinctive curriculum that is shaped by developments within the relevant discipline and the ability of Trinity staff to respond to such academic and technological advances through their own engagement in research.

Trinity College is at the forefront of graduate education in Ireland and provides a wide range of taught Masters' courses and doctoral research programmes across all academic areas, together with continuous professional development courses, many of which incorporate the expertise of external stakeholders. Realising our core value that teaching and research are inter-dependent there is substantial postgraduate provision in each of the five priority research themes: European and International Integration (for example, the MSc in International Politics), Culture and Creative Arts (for example, the MPhil in Public History & Cultural Heritage and the new MPhil in Music Composition), Materials and Intelligent Systems (for example, the MSc in Mobile and Ubiquitous Computing), Biosciences and Translational Research (for example, the MSc in Neuroscience and the new MSc in Translational Oncology), Transport, Energy and Environment (for example, the



## 1. Mission / 1.2 Teaching and Learning

---

MSc in Engineering (Transport or Environmental) and the MSc in Environmental Sciences). Trinity's provision at Masters level aims to develop the student's independent research skills and advanced disciplinary expertise, often spanning subject areas to facilitate interdisciplinarity, and providing internships as part of the curriculum in commercial, cultural and social organisations within Dublin, Ireland and overseas. The postgraduate area is dynamic as new courses develop to provide advanced training in new fields of study (for example, Digital Humanities) or to cater for specific research-led professional development (for example, the Masters in Medicine).

Trinity's research focus and broad disciplinary base are well-suited to respond to the emerging educational requirements of the international and national communities.

At doctoral level, approximately 2,000 postgraduate researchers, working with their supervisors, are contributing to original knowledge generation and transfer. Trinity's four-year PhD provides structured doctoral training across all areas of scholarship and advanced disciplinary and generic skills modules support the student in his/her research and career development. The Trinity PhD student is expected to demonstrate the ability to conceive, design and implement a substantial process of research with scholarly integrity, rigour and discrimination which may involve the development of new skills, techniques, tools or materials. Through critical analysis, evaluation and the synthesis of new and complex ideas, Trinity PhD students extend the frontiers of knowledge. Trinity provides the optimal research environment to ensure that our PhD students develop these attributes and skills at the highest level in order to make an original contribution to their academic discipline. The TCD-UCD-QUB Innovation Academy (see 5.1 below) aims to create a distinctive kind of PhD graduate – one who is expert in his/her discipline whilst also possessing the skills and confidence to be creative, innovative, entrepreneurial and business-aware.

Trinity's doctoral students also make a major contribution to the teaching environment through their activity as postgraduate teaching assistants and many participate in a development programme to enhance their teaching practice and understanding of student learning. The interaction between undergraduate and doctoral students in this 'near peer' manner reinforces the research ethos of the university.

## 1. Mission / 1.3 International Orientation

---

### 1.3 International Orientation

Trinity College Dublin has always been an internationally-oriented university, and remains so in terms of staff profile and the nature of international collaborations in research and scholarship. Trinity College Dublin is distinctive in being Ireland's most globalised university, as evidenced by the following independent metrics:

Trinity scores **highest in Ireland** in internationalisation, using the combined measures of the ratio of international to domestic students, the ratio of international to domestic staff and the proportion of international co-authored papers.

---

THE World University Ranking 2011

Trinity is ranked **16th in the world** in terms of 'International Outlook'.

---

Times Higher Education World University Ranking 2011

---

Trinity's distinctly high level of research collaboration is evidenced by co-authorship data in Thomson Reuters InCites, which shows

Over the past five years, Trinity has more international research collaborations per staff FTE (ie. more research outputs in collaboration with more institutions and countries) than other Irish universities;

Over the past five years, Trinity has more national research collaborations per staff FTE (i.e. more research outputs in collaboration with more Irish higher institutions) than other Irish universities.

Trinity is ranked **29th in the world** for 'International Faculty'.

---

QS World University Ranking 2011

Trinity is ranked **38th in the world** for 'International Collaboration'.

---

Leiden World University Ranking 2011

## 1. Mission / 1.3 International Orientation

---

The new Global Relations Strategy launched in 2012 will build on the national campaign for internationalisation, recognising that universities have a crucial role to play in promoting Ireland's international profile<sup>15</sup>.

This will be achieved by

- forging educational and research alliances with the very best global institutions. We take as our benchmark research collaborations already under active development including with Harvard (in engineering), Peking University (science), All India Institute of Medical Science (health sciences), Princeton (music) and North Western (global health). Students from world-class universities such as the University of Chicago, Brown and Columbia, Singapore and Tsingua will spend time at Trinity and our students will benefit from the international and inter-cultural experiences that these exchanges bring. Students coming to Trinity will be afforded opportunities for internships/exchanges in the highest-ranked universities in the world;
- doubling the number of our students who spend part of their degree programme abroad. The success of outgoing student mobility is assured by good relations maintained with partner institutions with similar educational missions. Trinity has numerous links with other members of the Coimbra Group, an association of long-established European multidisciplinary universities of high international standard, and has long been a participant in the Erasmus programme of student exchanges (see Appendix 5 for details of agreements with international universities);
- supporting increased staff mobility, in part to sustain the international links;

Our goal by 2015 is to realise the strategic objective of increasing non-EU students by

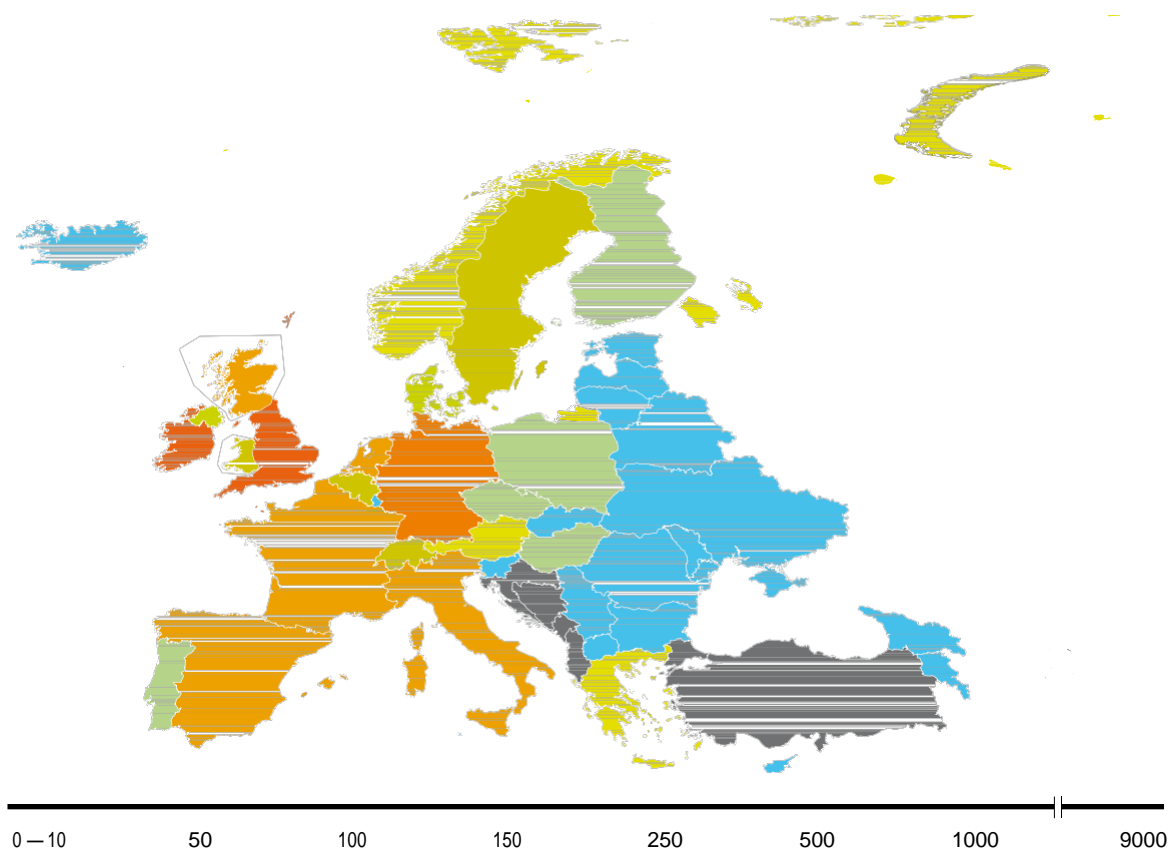
- building on previous successes and existing relations with North American universities and top US high schools to increase student recruitment. Our experience indicates that our existing suite of programmes are attractive to international students; in particular those from North America who value a four year liberal arts education;
- building existing relationships in Asia, especially with Malaysia and Singapore. Trinity College has entered into an agreement with the Singapore Institute of Technology, an umbrella group for the polytechnics established by the Ministry of Education in Singapore, to provide degree programmes in Physiotherapy and Occupational Therapy;
- developing relations in key areas of global growth, especially India and China. Trinity is developing close links with premier secondary schools in targeted Indian cities and has offered funded scholarships, based on academic merit, to incoming undergraduate students from India. A strategic partnership has been signed with one of China's top universities, Beihang University, which will enable both institutions cooperate in teaching and research, and facilitate exchange of students and researchers between

---

<sup>15</sup>National Strategy for Higher Education to 2030, p.81.

## 1. Mission / 1.3 International Orientation

### International Research Collaborations (by co-authorship)

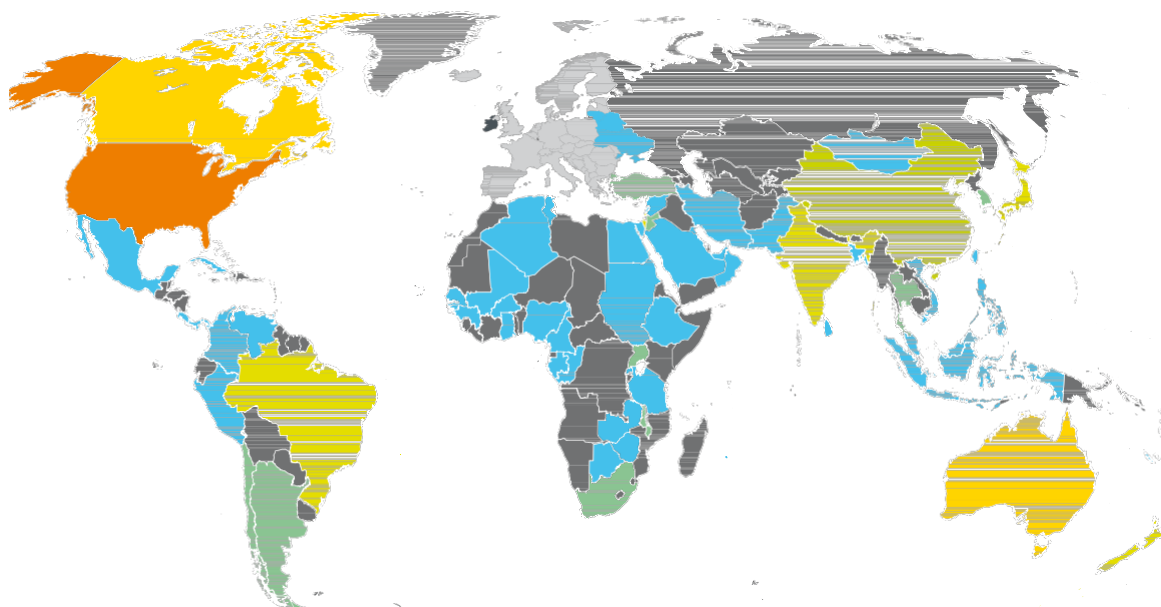


### European Collaborations

Ireland	9,785	Denmark	177
England	1,280	Wales	150
Germany	690	Russia	139
France	440	Austria	123
Netherlands	418	Norway	106
Italy	408	Greece	101
Scotland	325	Finland	89
Spain	322	Poland	82
Sweden	283	Portugal	72
Switzerland	223	Czech Republic	69
Belgium	201	Hungary	50
Northern Ireland	188		



## 1. Mission / 1.3 International Orientation



### World wide Collaborations

United States	1,199	Singapore	23
Australia	264	Chile	21
Canada	192	Thailand	15
China	151	Argentina	13
Israel	94	Kenya	13
Japan	86	Uganda	12
India	67	Malawi	11
Brazil	64	Lithuania	10
New Zealand	64	Malaysia	10
South Korea	42	Mexico	10
South Africa	37	Ukraine	10
Turkey	28		

An exciting international development is the development of the Global Science Gallery Network enabled by a gift from Google.org. The network will be modelled on the successful approach developed by the Science Gallery to engage young people, through a cutting-edge program of exhibitions and experiences that ignite creativity and discovery where science and art collide.

Eight Science Gallery hubs are planned around the world by 2020, developed in partnership with leading universities in key cities such as London, Moscow, New York, Bangalore and Singapore. In each city, a creative community of researchers, designers, artists and entrepreneurs will engage and inspire the next generation of innovators.

the two institutions. Undergraduate students will have the opportunity to conduct their final year research project at the partner institution.

Trinity's School of Engineering is the only Irish participant in the Consortium Linking Universities of Science and Technology for Education and Research (CLUSTER) which has a partnership agreement between the top engineering schools in Europe and in China.

- The partnership will provide significant opportunities to students for placements across Europe and China during their studies. At postgraduate level, recruitment is being extended to new markets such as Brazil, Kazakhstan, Russia and the Gulf States, often with the opportunity for fully-funded studentships. Apart from our direct recruitment and marketing, Trinity College, together with University College Dublin, has entered into an arrangement with Study Group International, to deliver a three-term foundation year for international students preparing to enter undergraduate courses in either university.
- developing existing international activities within Trinity, like the semester start-up programme aimed at one-term/one-year students;
- developing summer schools, including those for prospective students, in Dublin and abroad.

Other core elements of our Global Relations Strategy are to engage Trinity alumni networks across the globe fully, recognising that our alumni are advocates for Trinity and Ireland. We also intend to increase significantly our philanthropic income.

#### 1.4 Regional Engagement

Trinity College Dublin is distinctive in being a university physically located on a large campus in the centre for a capital city. It is a university on the world stage while also being engaged with its neighbours in the city centre, with the city government, and with regional initiatives such as the Dublin Regional Higher Education Alliance (see 3.1 below). Trinity highly values its relationships with the city and with the immediate local community and throughout its long history has had an important tradition of community engagement and of contributing to the society which it serves. In addition to promoting local and regional engagement through its research and teaching, significant outreach activities are interwoven into the fabric of College life for staff and students, with activities which support the local community, such as the Voluntary Tuition Programme, the Social Club for the Elderly and homework clubs, being encouraged and promoted<sup>16</sup>.

<sup>16</sup>See <http://www.tcd.ie/Community/students/volunteering/campus/forum.php>

## 1. Mission / 1.4 Regional Engagement

---

Engaging with Dublin as an international city of learning, culture and innovation.

Trinity has an iconic and historic association with the city dating back to 1592 when Dublin Corporation provided a site for the new university. Trinity is deeply committed to actively contributing to the promotion of Dublin as an international city of learning, culture and innovation. The Creative Arts, Technologies and Culture Initiative, in partnership with the creative industry and cultural sector, is creating a dynamic network of interconnectivity at the heart of the city, incorporating education, research, creative practice and entrepreneurship. The Initiative builds on the core strengths of the University, combining the University's activities with the unique cluster of cultural arts institutions based in the capital city (such as the Arts Council and the National Gallery), with the range of existing and emerging creative industries (such as Giant Creative and Havok) (see Appendix 9 for more details). Dublin is ideally placed to grow a knowledge ecosystem consisting of both public and private entities; universities and research organisations; industry and enterprise; local and regional public authorities; which together can support all forms of creativity – artistic and cultural as well as scientific, technological and economic. Trinity College Dublin, in collaboration with city partners, will continue to play its part in maximising the collective capacity of Dublin as a creative and influential global city region (see 5.2 below.)

At its most fundamental level, Trinity's engagement with society is realised through education and research, and through the innovations that derive from these academic activities. Engagement with business and industry is an integral part of much of our research activity and teaching. Student projects and dissertations have been informed by placements in the community, by community needs and by data emanating from voluntary bodies<sup>17</sup>. University research is feeding into society more directly than ever before. Large-scale research projects such as the The Irish Longitudinal Study on Ageing (TILDA), Growing up in Ireland (GUI), Trinity International Development Initiative (TIDI) and Trinity Immigration Initiative (TII) are examples of engaged research, where there is a sustained collaboration between researchers and the community and where social change may arise through actions based on the research.

Trinity College's Technology Transfer Office (TTO) engages with a wide range of companies throughout Ireland and internationally. These include multi-national corporations, indigenous Irish companies, SMEs and newly-formed enterprises. Trinity fosters mutually-beneficial research collaborations and partnerships with such companies, enhancing the strong link between the university and innovation that is so important to the renewal and sustainability of the national economy. Appendix 3 shows some recent campus companies formed to harness Trinity's research expertise. As an example, BioCroi Lit was established in 2011 to commercially exploit technology developed at the Institute for Molecular Medicine, Trinity Centre for Health Sciences. The drug discovery market is driven by innovation in new therapies and BioCroi's PlateMinder™ technology represents a breakthrough in stabilizing cell-based assays performed in micro volumes.

Trinity's physical linkage to industry and innovation is further facilitated through the Trinity Technology and Enterprise Campus. The campus uses its

<sup>17</sup> See <http://www.tcd.ie/Community/students/volunteering/campus/forum.php>

## 1. Mission / 1.4 Regional Engagement

---

four areas of space to support the creation of new knowledge-based indigenous enterprises and to develop networks of support for university-led entrepreneurship. This is achieved through the dedicated incubation and development of a stream of high technology companies linked to research groups in Trinity College. For example, Allegro Technologies Ltd was established as a campus company in the early 1990s, trading as Deerac Fluidics it set up operations in the Trinity Technology and Enterprise Campus to be close to the R&D activity in the University. In 2008 Deerac merged with Labcyte, based in California, USA. The press release announcing the merger quoted Dr Heron, CEO of Labcyte, “Dublin offers a vibrant research community with business-friendly policies. The innovative atmosphere created by Trinity College Dublin makes location of our European operations close by especially attractive.” (See Appendix 8 for list of companies housed in the Trinity Technology and Enterprise Campus.)

Trinity College Dublin works with other educational institutions to enhance Dublin’s reputation as a centre of educational excellence. Section 5 outlines in more detail our initiatives with University College Dublin and with Dublin Institute of Technology while our commitment to the Dublin Regional Higher Education Alliance is restated in 3.1. New relationships with the Associated Colleges of Education and with the Royal Irish Academy of Music are also proposed.

Engaging with the local community.

Conscious of our physical location within a thriving community, Trinity’s facilities are available for use by our neighbours – for example, we provide space for Pearse Street Credit Union and our sports centre facilities are available to community groups and for family activities. We offer a wide range of evening courses, open to the citizens of Dublin, in many different fields from Introduction to the Language and Culture of China to French Film Series to Neuroscience – the 21st Century Brain. See Section 2 below for more details. Each year Schools within the University run public lecture series to disseminate both the research findings of our own staff and the expertise of visiting experts. Increasingly, these events are streamed on the web so as to widen the audience.

For many years Trinity College Dublin has demonstrated a strong commitment to the participation of students from non-traditional backgrounds in third and fourth level education. The Trinity Access Programmes (TAP) have formed a central part of Trinity’s plan to encourage young adults, adults and ethnic minority students who come from socio-economic groups under-represented in higher education, to go to university. Through its School and Community Outreach links, TAP works with 19 primary and 20 second-level schools in Dublin. These activities take place in schools and on the Trinity campus. The foundation courses and students of the TAP are supported by the companies Accenture and Grant Thornton through innovative career development and mentoring programmes.

Bridge21 is a joint venture of Trinity College Dublin and Suas Educational Development that offers a new model of learning, adapted for use in Irish secondary schools. As well as its nationwide secondary schools programme, it runs the Bridge2College outreach programme in Pearse Street.

Examples of regional engagement vehicles.

The Trinity Long Room Hub Arts and Humanities Research Institute provides an important strategic focal point for linking the university with the city and its education and cultural institutions and provides a prominent forum for connecting academic research with public debate (See Appendix 9).

The Science Gallery is an award-winning, dynamic and innovative public space, fitted out and operated with assistance from state and private funding. The Gallery engages the public with major current and future issues in science through imaginative and interactive exhibitions, events, discussion and debates. This initiative has had an extremely positive impact on the public perception of science and scientific research and has contributed significantly to Trinity's and Ireland's science outreach programme, including Dublin City of Science 2012. It serves as a gateway between the University and the local community, opening up the campus to the city and beyond. It runs a scholars programme whereby second level students are invited to attend workshops in the Science Gallery. As outlined earlier (1.3), the Science Gallery's successful format is being replicated in other cities.

Legal deposit has been established in Trinity College Dublin since 1801 and today the Library has 5 million printed volumes with extensive collections of journals, manuscripts, maps and music reflecting over 400 years of academic development. As well as being an institutional resource, the Library's collections are an integral component of the national research infrastructure and internationally recognised as one of the great research libraries of the world. The Library provides services to a wide range of external users and institutions and its collections are accessed annually by up to approximately 12,000 researchers in Ireland and from across the international scholarly community. It contributes to the development of creative initiatives in information provision and its exhibitions of manuscripts and other treasures attract hundreds of thousands of visitors to the Old Library each year.

The Douglas Hyde Gallery, supported by the Arts Council and Trinity College is a long established gallery exhibiting the cutting-edge of contemporary art.

Trinity's engagement with society is driven by the role of advancing knowledge and using that knowledge for the benefit of all. Contributing to the development of Dublin as an international city of learning, culture and innovation, a city that provides opportunities for all its citizens is an important aspect of the core mission.





## 2. Student Profile

## 2. Student Profile

Trinity College Dublin's vision is of a university providing multidisciplinary, research-led education while being fully responsive to the changing needs of society.

Trinity offers the full range of courses from undergraduate degree programmes to postgraduate diploma and Masters taught programmes to degrees and professional doctorates<sup>18</sup>. In 2010/2011 70% (10,952) of our enrolments were in this category, spread across three faculties: Arts, Humanities and Social Sciences, Engineering Mathematics and Science and Health Sciences.

Demand for undergraduate programmes is high. In 2011 the total number of applications to courses (all preferences) was 40,364. The number of first preference applications to Trinity was 7,770. In the same year Trinity's overall ratio of applications (all preferences) to quotas was 14:1. As a consequence, Trinity College consistently attracts highly-qualified students to its undergraduate courses. In 2011/12 25% of undergraduate new entrants achieved 550 points or above. In the same year 1,140 applicants to the CAO achieved 560 points or more and 37% of these accepted a place at Trinity<sup>19</sup>.

Table 1. Distribution of Points, Undergraduate New Entrants (%)

Year	550 points +	525-549	500-524	475-499	450-474	425-449	400-424	<400
2011	25	17	18	16	8	8	4	3
2010	25	17	16	17	11	6	5	4
2009	22	14	15	17	13	8	5	5

Our student population represents every county in Ireland and more than 95 nationalities. As noted earlier we have developed a Global Relations Strategy which will further internationalise our student body.

<sup>18</sup>Courses offered in cooperation with other institutions: The BMusEd (Royal Irish Academy of Music and the Dublin Institute of Technology Conservatory of Music and Drama (see Appendix 8)); the BSc in Human Nutrition and Dietetics (DIT); the Masters in Development Practice (UCD, in collaboration with the National University of Rwanda (see 5.1)). There is an arrangement in place with the HEC in Paris whereby on successful completion of the programme, students are eligible for the award of either the BA or B.B.S., together with the Diplôme de Grand Ecole from the H.E.C.

<sup>19</sup>Though not all subsequently registered.

## 2. Student Profile

Table 2<sup>20</sup>. Geographical Distribution of the Student Body, Based on Nationality, 2010/2011

Area	No. of students 2010/2011	% Distribution 2010/11
Ireland*	13,149	79%
Europe (EU)	1,892	11%
Europe (non EU)	152	1%
Africa	241	1%
Asia	535	3%
Australasia	28	0%
North and Central America	731	4%
South America	19	0%
TOTAL	16,747	100%

\* which includes Northern Ireland, based on home address details.

Of the undergraduate new entrants in 2011/12 who list a home address on the island of Ireland, 51% are from Dublin, 26% from the rest of Leinster.

Table 3<sup>21</sup>. Distribution of 2011/12 Undergraduate New Entrants who have an Irish Home Address\*

Area	No. of new entrants 2011/12	% of new entrants 2011/12
Connaught	189	7%
Dublin City	1,032	37%
Dublin County	391	14%
Rest of Leinster	734	26%
Munster	288	10%
Ulster (RoI)	109	4%
Northern Ireland	62	2%
	2,805	100%

\*for those who have Irish city/county home addresses only. Nationality of student may not necessarily be Irish.

Among universities in the Republic of Ireland Trinity has traditionally attracted the largest number of students from Northern Ireland and we are committed to increasing this proportion.

<sup>20</sup>Source: Senior Lecturer's Annual Report 2010/2011, Appendix B.

<sup>21</sup>Source: Senior Lecturer's Annual Report 2010/2011, Table A18.

## 2. Student Profile

Table 4<sup>22</sup>. Attendance of NI Domiciled Full-Time Undergraduate at HEA Funded Universities, 2009/10

Institution	No of NI domiciled students	Total no of ug students	% of NI domiciled students	Institute % of NI domiciled students
DCU	1	6,421	0%	0%
NUIG	33	10,531	0%	5%
NUIM	12	5,453	0%	2%
TCD	334	6,805	5%	49%
UCC	8	12,757	0%	1%
UCD	283	14,974	2%	42%
UL	4	8,136	0%	1%
Total	675	65,087	1%	100%

Trinity College has always placed great value on having a diverse and inclusive student population and is an active participant in the DARE and HEAR third level access schemes, winners of a Public Service Excellence Award, 2012. We are committed to achieving a 22% entrance rate by underrepresented groups and a 13% entrance rate by under-represented socio-economic groups by 2013. Applications from mature students and those from backgrounds of socio-economic disadvantage or with a disability are actively encouraged. In 2011 18.8% of new undergraduate entrants were admitted using key access criteria (socio-economically disadvantaged, mature students, students with a disability.)

The level of educational attainment expected in today's workforce is changing – where in past a primary degree was the norm a Masters qualification is now often the entry standard required by employers. Of those repoding to a survey of Trinity graduates, 42% graduating with a primary degree in 2010 went on to research or further academic study. While 49% of primary degree respondents gained employment the percentage for higher degree graduates is much higher at 72%<sup>23</sup>. Higher education institutions have a responsibility to contribute to social and economic development by providing access to knowledge-based skills and professional development. Trinity College also meets this responsibility through an extensive range of postgraduate taught courses in all disciplines which, in 2011, attracted nearly 6,000 applicants, 32% of who ultimately registered<sup>24</sup>. We are committed to extending our provision at the postgraduate taught course level as a response to the need for continuous professional development and as we build on advances in technology and professional practice. We point, for example, to the MSc in Neuroscience, the Masters in European Business Law, the MSc in Dementia, the MSc in Engineering (Transportation), the MSc in Business and Management and the PG Diploma in Sustainable Energy. To respond to the needs of the professional body, Engineers Ireland, Computer Science and Engineering will be offering integrated five-year programmes, consisting of a four-year undergraduate degree programme followed by an optional fifth year leading to a Masters.

<sup>22</sup>Source: EURES Cross Border Partnership Steering Committee, 'A Study of Obstacles to Cross-Border Undergraduate Education', 2011; Total undergraduate student numbers accessed from <http://www.heai.ie/en/node/1374>, 18 July 2012.

<sup>23</sup>Careers Advisory Service, Annual Report 2010/2011 First Destination Statistics.

<sup>24</sup>Dean of Graduate Studies Annual Report, 2010/2011, Appendix 8b.

## 2. Student Profile

---

Trinity College recognises a growing need for part-time and flexible learning options and considers that we can best meet this at the level of postgraduate taught courses. Flexible learning options have been introduced in courses such as the MSc in Nursing and the Masters in Education and many of our postgraduate courses are delivered on a part-time basis, for example, the MSc in Health Informatics and the Masters in Theological Studies. The MSc in Pharmaceutical Manufacturing Technology is delivered online and we intend to further develop online provision, bearing in mind the significant investment required in technology and the reputational risk if quality cannot be assured.

Trinity College Dublin has more postgraduate research students than any other Irish university, with nearly 2,000 PhD students in 2010/2011. There were over 1,000 applicants for admission in 2011/12, 542 (54%) of which registered<sup>25</sup>. Many of these students were attracted to Trinity by the opportunity to work with internationally renowned researchers. Growth in postgraduate research is very much dependent on the ability of the state and the university to provide funded studentships – a necessity when competing globally.

As part of our commitment to lifelong learning we offer a wide range of extra-mural evening courses in many different fields from history of art to social work, philosophy to psychology, Greek and Roman mythology and religion to neuroscience and a wide variety of languages. Over 3,000 people attend the courses on English literature covering selected texts prescribed for the Leaving Certificate. The Irish School of Ecumenics's adult education programme in Northern Ireland and the border counties reaches 1,800 participants each year.

The National Institute for Intellectual Disability (NIID) was established at Trinity College in 1998 to promote the inclusion of people with intellectual disability and their families. The NIID promotes lifelong learning for people with intellectual disability through:

- The Certificate in Contemporary Living, an inclusive education programme for students with intellectual disabilities
- Development and implementation of inclusive research practice
- Analysis and commentary on relevant legislation and policy
- Parent/family education
- Consultancy and partnership with service and advocacy agencies
- Public Education

---

<sup>25</sup> Dean of Graduate Studies Annual Report, 2010/2011, Appendix 7.

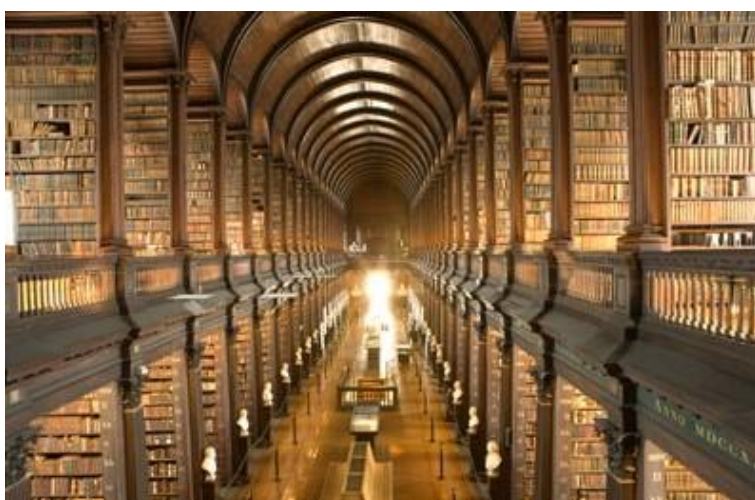


## 2. Student Profile

---

In summary, Trinity College Dublin's student profile will continue to consist of undergraduate, postgraduate taught and research students. The recruitment of international students will be additional to existing quotas. Participation by non-traditional entrants will increase and the portfolio of postgraduate taught courses in emerging areas and for professional development will be extended.

The provision of part-time postgraduate taught courses will increase to accommodate the growing number of students who combine study and work. While the complex issues of funding higher education, noted in the Review of Funding Model for Higher Education Institutions Consultation Document July 2012, remains unresolved it is not possible to commit to any significant increase in undergraduate EU students. However, Trinity College remains open to considering targeted increases as appropriate.





Trinity College Dublin is committed to national and international collaborations which optimise our contribution to learning and research.

---

### 3.1 Dublin Regional Higher Education Alliance

Trinity College Dublin is committed to national and international collaborations which optimise our contribution to learning and research. We bring value to Dublin city and its branding as a centre for educational excellence and believe that the work of the DRHEA can also make an important contribution.

Trinity has fully engaged in all three strands: enhancement of learning, widening participation and graduate education. Participation has enhanced our capacity to deliver modules to postgraduate students. Continuing the work that has already been started by the DRHEA there is potential for

- continuing further development of graduate modules
- increasing graduate student mobility
- developing shared resources, perhaps with the city of Dublin that meet the common needs of graduate students
- potential synergies with the new National Academy
- facilitating the internationalisation of the student body by sharing resources abroad – such as common office space.

Trinity is in favour of the retention of the DRHEA with cost-effective supports for a well-designed set of projects in the graduate education and, perhaps, internationalisation, domain. In summary, Trinity is keen to play an active part in the further development of the DRHEA.

### 3.2 National Digital Learning Resources

Trinity supports the objectives of the National Digital Learning Resources (NDLR) to facilitate greater collaboration in developing and sharing of digital teaching resources and associated teaching experience across all subject disciplines and communities of academics and to promote good practice.

## 3. Clusters / 3.3 / 3.4 / 3.5 / 3.6

---

### 3.3 Creative Dublin Alliance

As a member of the Creative Dublin Alliance the Provost demonstrates the College's commitment to develop, manage and promote Dublin's international reputation as a city where innovation and creativity thrive. [See 5.2 below.]

### 3.4 Molecular Medicine Ireland

Molecular Medicine Ireland was established by Trinity College Dublin, University College Cork, University College Dublin, National University of Ireland Galway and the Royal College of Surgeons, and their associated hospitals, as a research partnership to accelerate the translation of biomedical research into improved diagnostics and therapies for patients. It has created a critical mass of excellence in molecular medicine research and education in Ireland.

### 3.5 National Institute for Bioprocessing Research and Training

Trinity College Dublin was instrumental in the formation of an innovative collaboration with University College Dublin, Dublin City University, the Institute of Technology, Sligo which created a global centre of excellence for training and research in bioprocessing. In its purpose-built plant NIBRT provides a range of undergraduate and postgraduate programmes which are specifically tailored to meet the needs of the bioprocessing industry and its research programmes have been developed through collaboration with industry.

### 3.6 National Digital Research Centre

NDRC was founded in 2007 by Trinity College Dublin, University College Dublin, Dun Laoghaire Institute of Art and Design, Dublin City University, the National College of Arts and Design, with support from the Department of Communications, Energy and Natural Resources. It is dedicated to accelerating research from idea to income and its collaborative approach with technology and business innovators is proven to drive greater collective success while cultivating bolder attitudes towards invention and investment.

### 3.7 Creative Arts, Technologies and Culture

Within the context of its strategy for the Creative Arts, Technologies and Culture, Trinity engages in intensive collaboration with strong partners in education, culture and technology. Examples include the Goldsmith University, Arts Council, the National Museum and Microsoft. The full extent of these relationships is outlined in Appendix 9.

## 3. Clusters

---

### 3.8 Technology Research for Independent Living

TRIL is an active collaboration between researchers in academic, clinical and industry settings. Operating as a virtual centre with researchers based in UCD, TCD and Intel, it tackles the problems associated with demographic ageing. The centre harnesses multidisciplinary ageing research, clinical expertise and enabling technology development and evaluation to support independent living.

### 3.9 Integrated NanoScience Platform for Ireland

INSPIRE is a national collaborative research project involving Trinity College, University of Limerick, University College Cork, Dublin City University, National University of Ireland, Galway, University College Dublin, Dublin Institute of Technology and Cork Institute of Technology, funded through PRTL1 4 and 5. The key programme aims include development of shared national nanoscience graduate programme, creation of a shared infrastructural capability and development of existing linkages to enable new collaborations locally, regionally and nationally across institutions and across disciplines.

### 3.10 Institute of Biomedical Informatics

IBI builds an interdisciplinary initiative that furthers research and innovation in the field of bioinformatics and health informatics. Its partners are Trinity College, Dublin, University College, Dublin, National University of Ireland, Galway, Queen's University Belfast, along with Hewlett-Packard. It collaborates to perform substantial research in health informatics, bioinformatics, image analysis and systems modelling.

### 3.11 Centre for Synthesis and Chemical Biology

The Centre for Synthesis and Chemical Biology is a collaboration in the chemical sciences between Trinity College Dublin, University College Dublin and the Royal College of Surgeons in Ireland. Scientists affiliated to the Centre play a pivotal role in the existing pharmaceutical and emerging biopharmaceutical industry in Ireland.





We have always considered opportunities for consolidation where there was an appropriate fit – where the affiliation enhances activities or complements them.

---

We recognise that the higher education landscape is changing. We have always considered opportunities for consolidation where there was an appropriate fit – where the affiliation enhances activities or complements them. We point, for example, to the incorporation of the Irish School of Ecumenics in 2000. The ISE is Ireland's only cross-border postgraduate institute, with campuses in Dublin and Belfast. Dedicated to the study and promotion of peace and reconciliation on the island of Ireland and in the wider world it is recognised for its interdisciplinary approach to taught programmes and research, drawing on the fields of politics, sociology, ethics, theology and religion. It is one component of the confederal School of Religions, Theology and Ecumenics which has recently been complemented by the addition of the Loyola Institute.

#### 4.1 The Loyola Institute

In 2007 the Milltown Institute approached Trinity College to enter into exploratory talks on a possible strategic alliance with that part of the Institute which offers a range of programmes on Catholic theology and related disciplines. In addition to the postgraduate programmes in the ISE, the department of Religions and Theology offers a range of undergraduate programmes based on a non-denominational approach. The Board took the view that such an alliance will further enrich and diversify the available approaches to Religion, Theology and Ecumenics and will allow Trinity to establish a broad and diverse grouping of interests to investigate these fields<sup>26</sup>. The incorporation of the Loyola Institute, with the aim of providing education and facilitating research in Catholic theology and related areas in a way which is ecumenical, in dialogue with other Christian and other faith traditions and in accordance with the general principles of academic freedom, was approved in 2012. The first intake to a new undergraduate degree in Catholic Theological Studies will be in 2013/14.

#### 4.2 Associated Colleges of Education

There is already a close relationship between Trinity College Dublin, the Church of Ireland College of Education and Marino Institute of Education through their status as Associated Colleges of Education and an expressed desire on both sides to deepen that relationship. In the spirit of meeting the challenges of the new environment Trinity College has held discussions with both institutions over the last number of

---

<sup>26</sup>Trinity College also has a long-standing relationship with the Church of Ireland Theological Institute. See 5.6 below.

### 3. Consolidation / 4.2

---

months and has offered a change in the relationship up to and including merger, if that were to the benefit of the higher education system.

In 2011 Trinity College entered into a co-trusteeship with Marino Institute of Education and intends to actualise the co-trusteeship for the benefit of teacher training in Ireland. Extensive discussions are ongoing with Church of Ireland College of Education through a six-member Taskforce established to report to the Provost and the Archbishop of Dublin.

### 3. Consolidation

---







# 5. Existing Collaboration and Collaborative

## 5. Existing Collaboration and Collaborative Initiatives

---

Since 2005, Trinity College Dublin and University College Dublin have collaborated in an unprecedented fashion.

---

### 5.1 University College Dublin

Since 2005, Trinity College Dublin and University College Dublin have collaborated in an unprecedented fashion to drive a range of flagship trans-institutional and national PhD training and research programmes including:

- National Institute for Bioprocessing Research and Training (NIBRT)
- National Nanotechnology Platform (Inspire)
- Technology Research for Independent Living (TRIL)
- Institute for Biomedical Informatics (IBI)
- Molecular Medicine Ireland (formerly Dublin Molecular Medicine Centre)
- Centre for Synthesis and Chemical Biology (CSCB)
- National Digital Research Centre (NDRC)
- Dublin Chemistry Graduate Programme (DubChem)
- McArthur Joint Masters in Development Practice
- The PRTL I Cycle 5 Structured PhD Grouping
- Joint Certificate / Diploma in Innovation & Entrepreneurship



## 5. Existing Collaboration and Collaborative Initiatives

---

### The Innovation Alliance & Innovation Academy

In March 2009, TCD and UCD launched what was seen<sup>27</sup> as a radical new Innovation Alliance intended, through government support, to trigger a step change in Irish job creation and a dynamic, flexible and sustainable Smart Economy.

The vision of the institutions in creating the Innovation Alliance was to drive the first step in the creation of an innovation ecosystem for Ireland, with complementary interactions between enterprise, higher education and government driving economic recovery. Only through working in concert can the partners realise Ireland's innovation potential and return us to sustainable and secure long term growth. A key component of a successful innovation system is the quality of its human capital. Through the Innovation Alliance, TCD and UCD partnered with the goal of producing a new breed of 3rd and 4th level graduates who are expert in their disciplines but also more innovative, entrepreneurial and business aware than ever before.

The centrepiece of the TCD-UCD Innovation Alliance is the Innovation Academy which builds on the respective strengths of the universities to create a robust and mutually beneficial continuum between teaching, research and innovation.

The overarching goal of Innovation Academy is to produce a new breed of graduate, expert in their disciplines, but with the creativity, entrepreneurship, mentoring and supports to rapidly convert knowledge, ideas and inventions into commercial use. The Innovation Academy drives a series of inter-related strands of activity and ensures that they are coordinated for maximum impact:

- Mainstreaming of innovation as the third pillar of university activity;
- Mainstreaming of state-of-the-art concepts of business, innovation and entrepreneurship into PhD training in all disciplines, including science, engineering and technology with a view to producing graduates who are business aware and job creators;
- The coordinated development of a portfolio of collaborative and complementary PhD programmes that include development of generic and transferable skills relevant to the modern, knowledge-based enterprise economy, and build on world-class research in areas with significant innovation and enterprise potential;
- Initiatives to promote early awareness of innovation and entrepreneurship at 3rd level, and to increase progression of 3rd level undergraduates to 4th level Masters and PhD training;

<sup>27</sup>The Innovation Alliance was heralded as a 'radical departure' for Irish Higher Education in 2009. Since then other Higher Education institutions have formed alliances nationally, including the NUI Galway – University of Limerick Strategic Alliance (2010) and the Dublin City University, NUI Maynooth and the Royal College of Surgeons in Ireland 3U Partnership (2012).

## 5. Existing Collaboration and Collaborative Initiatives

---

Since 2010, approximately 200 PhD students have participated in training in the Innovation Academy.

In bringing together students from both institutions around a common curriculum, the Innovation Academy also promotes joint research and education programmes and other measures to inform national innovation policy, drawing upon the existing expertise and resources of the two universities. The Innovation Academy builds on the joint strategy for structured PhD education that has a strong focus on transferable skills training and career development.

Through our Alliance, our shared goals were to:

1. combine our resources to develop flagship joint structured PhD programmes, anchored in the core disciplines and linked to our cross-cutting and interdisciplinary strategic research themes;
2. collaboratively plan our research and the development of our campuses to maximise our ability to deliver 4th level Ireland;
3. establish innovation and entrepreneurship alongside excellence in research and education as an integral element of the PhD, thereby transforming the doctoral experience;
4. consolidate, extend and scale up the generic and transferable skills provision to underpin professional development throughout students' doctoral training;
5. enhance Ireland's reputation for PhD education and attract high-quality international students with targeted initiatives.

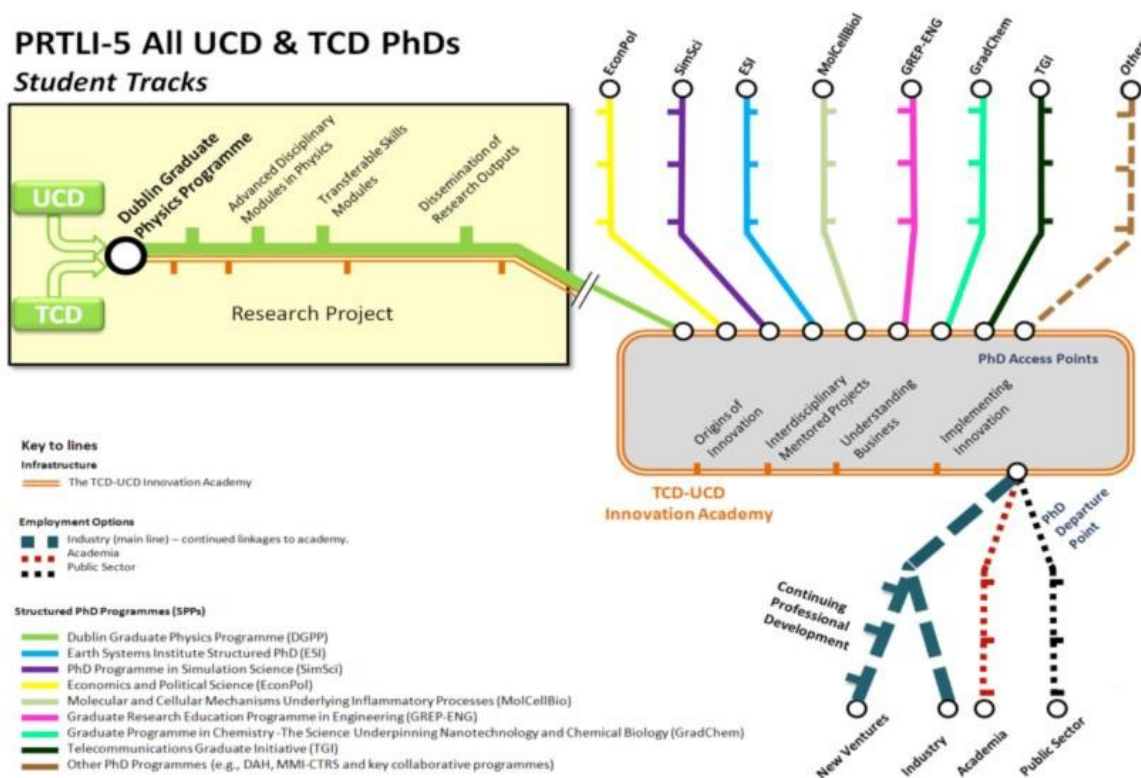
The Innovation Academy, while initiated on conception of the Alliance, was further developed as part of the PRTL Cycle 5 programme within the institutions to focus on the following key activities:

- innovation and entrepreneurship education and training across both campuses, to include a TCD-UCD Graduate Certificate in Innovation and Entrepreneurship;
- mentored interdisciplinary projects, focused on potential exploitation of doctoral research, as an integral element of the PhD;
- access to generic and transferable skills training across UCD, TCD and other partner institutions.

The Innovation Academy is the “glue” that links the disciplines and the research themes across our two institutions. The Academy over-arches a series of Structured PhD Programmes (SPPs) and within these delivers innovation and entrepreneurship modules, generic and transferable skills, coordinating interdisciplinary projects and liaising with Industry partners.

Under the auspices of the Innovation Alliance, Trinity and UCD have worked through open dialogue and engagement to develop joint programmes in research and education that map to critical national enterprise sectors and in the short term focus on major challenges in ICT, Life and Social Sciences. These programmes were built on our national and international collaborations and made maximum use of our existing resources. They served to help in our designing and addressing of future capital and

## 5. Existing Collaboration and Collaborative Initiatives



human infrastructure needs and were the cornerstone of the institutions' collaboration for Cycle 5 of the Programme for Research in Third Level Institutions – PRTL – which cemented significant graduate education platforms between TCD and UCD.

In PRTL, Cycle 5, nine<sup>28</sup> innovative structured PhD programmes were funded in Ireland, as well as the funded TCD-UCD Innovation Academy, with the majority of PhD students (180) registered to the structured programmes in either TCD or UCD. TCD and UCD each led four of the programmes, with NUIG leading the ninth. TCD and UCD are the principal collaborating partners<sup>29</sup>, although each programme has additional national partners and QUB as a devolved partner. Working through the Irish Universities Association, an inter-institutional agreement has been signed to recognise the credit weighting and quality of modules offered by partner institutions in order to facilitate student mobility. TCD and UCD employed a collaborative approach to advertise the funded programmes.

PRTL contributed to the recruitment of facilitation staff to foster links with industry for the benefit of the programme and interact with students in the experiential, small group learning sessions. The universities also fund the Innovation Academy by providing academic staff expertise, administrative support and teaching facilities. Together, and with the support of PRTL5 funding, TCD and UCD have fully implemented cross-institutional SPPs which intersect within the Innovation Academy. SPPs are discipline based, while within the Innovation Academy the students participate in interdisciplinary projects as a key element of their graduate training.

<sup>28</sup> Digital Arts and Humanities; Telecommunications Graduate Initiative; Graduate Research Education Programme in Engineering; Graduate Programme in Molecular and Cell Biology of Human Health; Molecular Medicine Ireland (led by NUIG); Earth Systems Institute – Earth & Natural Sciences; Dublin Graduate Programme in Physics; Electricity Research Centre.

<sup>29</sup> With the exception of Digital Arts & Humanities (as UCD is not involved in this particular programme).

## 5. Existing Collaboration and Collaborative Initiatives

---

The Innovation Academy is also the specific vehicle for delivery of the new joint TCD-UCD Graduate Certificate Courses in Innovation and Entrepreneurship. Here, Trinity and UCD are using the combined resources of their external partners, business schools and other relevant disciplines and experts to provide a unique programme, combining the education and research in innovation and entrepreneurship with case studies and real experience.

Students learn how ideas from primary research can be exploited, explore the research response to identified market needs and opportunities, and are guided through the innovation and business development processes. Key curricular areas are supported by guest lecturers, entrepreneurs and specialists in specific fields of business who deliver seminars and mentor projects in their areas of expertise. A combination of international and local entrepreneurs and industry representatives are involved, thereby contextualising and underlining the potential for achievement in the local environment. To ensure strong embedding, activities are designed with specific concepts and practices relevant to each student's discipline. Through this unique forum, TCD and UCD have the means to develop a new breed of doctoral candidate, expert in their discipline but also possessing the skills, networks and confidence to translate their research into a commercial, social, cultural or policy innovation.

### Expanding the Innovation Academy – Queens University Belfast

In 2012, Queen's University Belfast joined as partners to create the All-Island Innovation Academy to foster cross-border student mobility and inter-institutional sharing of modules in innovation and entrepreneurship. This collaboration ensures that doctoral candidates in TCD, UCD and QUB are exposed to the expertise that is available within each institution, as well interacting with an expanded network of contacts, entrepreneurs and spin-out companies operating North and South of the border.

Through the All-Island Innovation Academy, our students now uniquely interact across disciplinary boundaries, across institutions and across jurisdictions.

Staff from across the institutions are collaborating on the academic management of the programme, delivery of the course and the on-going development of the Innovation Academy. The institutions are developing international links, engaging in outreach events (eg, ESOF 2012; Falling Walls Competition) and disseminating the work of the Innovation Academy at international conferences on innovation & entrepreneurship education.

Trinity is committed to supporting and developing this interaction and is currently leading an EU Knowledge Partnership application, in close collaboration with UCD and QUB.

## 5. Existing Collaboration and Collaborative Initiatives

---

### The Innovation Alliance Governance and Management

TCD and UCD have established an initial joint Oversight Board to develop the Innovation Alliance, monitor its performance and report to the respective university Board (TCD) and Governing Authority (UCD). This Joint Senior Management Committee includes the Provost of TCD, President of UCD, Registrar of UCD, Vice-Provost/Chief Academic Officer of TCD, the Dean of Research at TCD and Vice-President for Research at UCD, the Bursar/Director of Strategic Innovation at TCD and the Vice-President for Innovation at UCD and the Deans of Graduates Studies at both institutions. The objective of this group is to ensure appropriate consolidation and coherence is achieved across the two campuses coupled with a significant programme of change in postgraduate education and enterprise development to underpin Ireland's resurgence as a leading knowledge economy.

### Extending and enhancing co-operation across the Institutions

The two institutions see the HEA Landscape process as a further opportunity to explore mechanisms to better collaborate for mutual and national benefit.

In this regard, UCD and TCD have jointly initiated a process to evaluate opportunities for collaboration in education, de-duplication and the sharing of resources. Under the joint leadership of the UCD Registrar and Trinity College's Vice-Provost/Chief Academic Officer, a top-down/bottom-up process has commenced with the goal of strengthening collaboration in Teaching and Learning between the institutions.

From a bottom-up standpoint, the Heads of academic units within the two universities has commenced a process of detailed discussion with his/her counterpart with a view to identifying opportunities to collaborate on the provision of existing and potential joint programmes, mutual recognition of credits and sharing of physical and human resources where appropriate. Both institutions recognise however that these discussions between individual groups of academics cannot reach their full potential unless the two universities also work together remove structural impediments to effective collaboration. To this end, the two universities intend to put in place a top-down framework to allow academics from UCD and TCD to develop collaborative initiatives knowing that the necessary supports will be put in place from an institutional perspective. This framework will fall under the joint leadership of the UCD Registrar and Trinity College's Vice-Provost/Chief Academic Officer and will encompass such things as putting in place an appropriate governance structure, ensuring that registry and financial systems and processes have the necessary levels of compatibility and the sharing of physical and human resources such as library facilities, laboratory space etc. In this regard, this initiative builds on developments already initiated through collaborative initiatives such as DRHEA and the IUA led initiative to examine the potential for shared services across the University sector.



## 5. Existing Collaboration and Collaborative Initiatives

---

Both institutions believe that this process presents a real opportunity for lasting and sustainable engagement and will build effectively on the excellent relationships and beneficial collaborations already in place between the two universities.

### 5.2 Dublin Institute of Technology

## Working together to enhance Dublin as an Innovative Global City Region.

Dublin is now fully part of the highly inter-connected global economy. Dublin is the only city in Ireland of a scale and diversity to be a truly competitive, global city. Dublin hosts the busiest airport, port and most the business life of the country and, as such, is the real gateway to Ireland.

Dublin is a diverse and talent-rich city; she is tolerant and technologically modern.

Continued success will depend upon growing a self-reinforcing knowledge ecosystem consisting of both public and private entities; universities and research organisations; industry and enterprise; local and regional public authorities; together supporting all forms of creativity – artistic and cultural as well as scientific, technological and economic.

Dublin Institute of Technology and Trinity College Dublin educate a significant percentage of all 3rd and 4th level students in Ireland. Located, as they both are, in the centre of a thriving global city, they represent a very significant human capital infrastructure that can help us solve some of the major issues of our time.

DIT and Trinity and the City will combine their assets to create a 'Global City Innovation Initiative'. By maximizing the collective capacity of Dublin as a creative and influential global city region, this initiative will create a flexible environment in which students, researchers, and other stakeholders come together to respond to pressing global issues of our time by experiment, design and the discovery of new solutions, products, services and interventions. This initiative will secure the future prosperity of the Dublin 'Capital Region' and ensure that the region remains attractive to talent, open and tolerant and at the cutting edge of modern technology.

Creative Technologies Hub will bring together expertise across the visual, performing and media arts with the sciences, engineering and business. Students and researchers will work in multi-disciplinary teams networked with cultural organisations, telecommunications and ICT companies, and the entertainment

## 5. Existing Collaboration and Collaborative Initiatives

---

sector to develop new fields of inquiry and applications for education, culture, entertainment, tourism and daily life through co-ordinated action. The aim is to mobilize and harness knowledge, talent and investment in order to capitalise on Dublin's creative resources and position it as a global centre of digital media and software development in order to advance Dublin as an attractive international hub for creative technologies.

Smart Cities Hub will leverage a broad range of expertise in ICT, engineering, urban planning, architecture and energy management to help make Dublin a reference point for future 'smart cities'. Building on the strong relationships that already exist between DIT, Trinity, the City, and the emerging cluster of multi-national and indigenous companies addressing the growing international smart-cities market, the aim is to position Dublin as a hub for the development of new technologies, products and services that can contribute to more efficient use of urban resources (eg energy, water or road space) and simultaneously to improve the quality of life of citizens. In doing so we will develop unique educational experiences that will foster a new generation of students with the multi-disciplinary skills needs to contribute to this emerging area.

### 5.3 Royal Irish Academy of Music

Using the impetus presented by the 'Landscape' document the Royal Irish Academy of Music and Trinity College Dublin have agreed to develop further its existing relationship and have formulated a formal proposal that the RIAM become an Associated College of Trinity College with the objective of developing an internationally renowned centre of excellence in the performing arts. The Royal Irish Academy of Music occupies a unique position in Ireland, as a specialist music conservatoire which provides the highest of international standards in instrumental and vocal tuition. It has well-developed international partnerships with over thirty leading conservatoires such as The Juilliard School, The Royal Northern College of Music, The Guildhall School of Music and Drama, the music faculty of DePaul University, Chicago and The Paris Conservatoire. Trinity College, Dublin has demonstrated a commitment to Arts Education and Research through the Creative Arts, Technologies and Cultures Initiative, most recently in the area of dramatic performing arts education with the establishment of The Lir, National Academy of Dramatic Art. Linking research to practice and focusing on the interface between innovation and tradition are key values which TCD and the RIAM share. [See Appendix 8 and Appendix 9.]

### 5.4 Dublin Dental University Hospital

The School of Dental Science, Trinity College Dublin together with the Dublin Dental Hospital comprise the Dublin Dental University Hospital (DDUH). Trinity College Dublin retains responsibility for the quality of education and research. Research is often in collaboration with other university disciplines as well as with industry.

The DDUH is unique in that it is the only academic centre in Ireland that offers educational programmes at certificate, diploma, degree and doctorate levels for the different members of the dental team. In delivering its educational remit it interfaces

## 5. Existing Collaboration and Collaborative Initiatives

---

with other providers of primary, secondary and tertiary levels of care within the region and nationally. The DDUH has service links with national specialist centres in the major Dublin Teaching Hospitals in Dublin and St. James's and Tallaght Hospitals are Trinity College's main teaching hospitals where students of the DDUH engage with clinical medical sciences. The DDUH is a recognised national centre for the tertiary care of patients referred from around Ireland who would otherwise not be able to access clinical care. So, not alone are essential services provided for those most in need of clinical care, this combination and range of service and pathological conditions provides a rich tapestry of clinical and social exposure for students and staff. It is important to consider the DDUH in its unique context of its wider services to the community.

### 5.5 Trinity Health Ireland

In 2011, a collaborative agreement in relationship to the establishment of Trinity Health (Ireland) was signed by the three participating institutions, Tallaght Hospital, St. James's Hospital and Trinity College Dublin. This allows for the incorporation of operational activities between the School of Medicine at Trinity College Dublin and its major teaching hospitals, in a manner designed to maximise the capacity for delivering high quality clinical care, providing excellence in medical education and training and delivering high quality biomedical research and contributing to the economic and social development in an integrated way. For the last year, the THI Committee, under the chairmanship of Professor Sir Gordon Duff, has been developing priorities and identifying areas to maximise opportunities both from a clinical, educational and research and operational way to provide economies of scale, but also to develop a focus of real strength within medicine in Ireland.

### 5.6 Church of Ireland Theological Institute

The Church of Ireland Theological Institute runs the Master in Theology course, with contributions from the confederal School of Religions, Theology and Ecumenics. The programme combines a strong academic emphasis which focuses on the foundational sources of Christian belief, namely scripture and the theological disciplines, with a practice-based model of learning. It is ecumenical in its scope, is adaptable to the needs of other Christian denominations and to forms of ministry other than the ordained.

### 5.7 Economic and Social Research Institute

In 2010 Trinity College Dublin and the Economic and Social Research Institute (ESRI) agreed a strategic partnership enabling both institutions to build collaborative and complementary strengths in the social sciences. This strategic partnership further strengthens collaborations in the major research projects The Irish Longitudinal Study on Ageing (TILDA) and Growing Up in Ireland (GUI). One of the first initiatives under the new alliance was the establishment of the Irish Centre for Longitudinal Research (ICLR). This Centre combines the expertise in both

## 5. Existing Collaboration and Collaborative Initiatives

---

institutions. Staff from the ESRI provide teaching at postgraduate level to Trinity students in their particular areas of expertise.

### 5.8 The Lir Academy

An imaginative partnership between Trinity and a private sponsor resulted in the landmark LIR Academy, in official association with the prestigious UK Royal Academy of Dramatic Arts (see Appendix 9 for more details).

### 5.9 Carlow College

In 2007 Trinity College Dublin and Carlow College signed a Memorandum of Understanding, as the two oldest institutions of higher education in Ireland, affirming that they share a number of areas of common interest, particularly in teaching and research in the Humanities and Social Science. The relationship is developing through joint lecture series, joint research engagement and exchange visits (see Appendix 10). From September 2012 the School of Education at Trinity College Dublin will offer the Higher Education strand of the M.Ed. programme to a cohort of academic staff from Carlow College. As well as the traditional mode of delivery some lectures will be delivered through video-conferencing.

### 5.10 Dublin Institute for Advanced Studies

In July 2012 senior representatives of Trinity College Dublin and the Dublin Institute for Advanced Studies met to review the ongoing extensive collaborations between the two institutions. This effective collaboration primarily focuses on joint research projects and supervision of postgraduate students in shared areas of expertise. The two institutions are open to further discussion on deepening this collaborative relationship as appropriate academic opportunities arise.

## 5. Existing Collaboration and Collaborative Initiatives

---







# Appendix 1

Trinity College Dublin Research Impact Relative  
to National and World Averages

## Appendix 1

---

### Trinity College Dublin Research Impact Relative to National and World Averages.

Data source: Thomson Reuters InCites

The following table shows the most detailed view available of the fields in which Trinity College Dublin's (TCD) impact (normalised per subject) exceeds the world average impact per subject. The extent to which TCD outstrips the world average is seen in the column headed 'Impact Relative to Subject Area'. In each subject area, the world average = 1. TCD scores higher than 1 in each one of these fields; the higher the figure for TCD (above 1) the greater its impact relative to the average for each subject area. TCD's impact in every one of these 107 subject fields is above the world average impact, in some cases, considerably so. In addition, TCD leads Ireland in terms of impact in all but 16 of these fields.

These data result from an analysis within InCites of TCD with every one of the 250+ Web of Science fields. Also included is the comparative 'Impact relative to subject area' (based on citations per paper data normalised by subject) data of TCD and 'Ireland Totals' (ie. average for Ireland). A number of fields have been removed either because the data returned was negligible (as in many of the Arts/ Humanities fields) or skewed due to very small numbers of papers.

## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Agricultural Economics & Policy	IRL Totals	15	33	2.20	1.32
	Trinity Totals	4	16	4.00	2.39
Agricultural Engineering	IRL Totals	60	323	5.38	1.33
	Trinity Totals	2	21	10.50	2.60
Agriculture, Dairy & Animal Science	IRL Totals	382	1,841	4.82	1.94
	Trinity Totals	11	64	5.82	2.35
Agriculture, Multidisciplinary	IRL Totals	196	819	4.18	1.57
	Trinity Totals	9	176	19.56	7.33
Allergy	IRL Totals	48	805	16.77	2.45
	Trinity Totals	10	174	17.40	2.54
Anatomy & Morphology	IRL Totals	33	162	4.91	1.43
	Trinity Totals	7	56	8.00	2.33
Anthropology	IRL Totals	37	129	3.49	1.45
	Trinity Totals	8	31	3.88	1.61
Archaeology	IRL Totals	43	77	1.79	1.14
	Trinity Totals	9	37	4.11	2.62
Astronomy & Astrophysics	IRL Totals	43	77	1.79	1.14
	Trinity Totals	9	37	4.11	2.62
Behavioral Sciences	IRL Totals	130	857	6.59	1.08
	Trinity Totals	47	352	7.49	1.22
Biochemistry & Molecular Biology	IRL Totals	1,269	13,935	10.98	1.21
	Trinity Totals	311	3,579	11.51	1.27
Biodiversity Conservation	IRL Totals	69	603	8.74	1.85
	Trinity Totals	28	423	15.11	3.20
Biology	IRL Totals	234	1,480	6.32	1.30
	Trinity Totals	59	518	8.78	1.81
Biotechnology & Applied Microbiology	IRL Totals	804	7,351	9.14	1.57
	Trinity Totals	79	917	11.61	1.99
Cell Biology	IRL Totals	481	5,075	10.55	0.93
	Trinity Totals	94	1,698	18.06	1.60
Chemistry, Inorganic & Nuclear	IRL Totals	251	1,854	7.39	1.55
	Trinity Totals	53	732	13.81	2.91
Chemistry, Multidisciplinary	IRL Totals	558	5,853	10.49	1.40
	Trinity Totals	194	2,919	15.05	2.01
Chemistry, Organic	IRL Totals	447	3,085	6.90	1.22
	Trinity Totals	114	1,373	12.04	2.13
Chemistry, Physical	IRL Totals	734	5,954	8.11	1.39
	Trinity Totals	264	3,060	11.59	1.99
Classics	IRL Totals	14	4	0.29	1.60
	Trinity Totals	5	2	0.40	2.24

## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Computer Science, Cybernetics	IRL Totals	23	24	1.04	0.55
	Trinity Totals	6	12	2.00	1.06
Computer Science, Interdisciplinary Applications	IRL Totals	312	650	2.08	0.86
	Trinity Totals	43	129	3.00	1.23
Criminology & Penology	IRL Totals	25	34	1.36	0.68
	Trinity Totals	2	4	2.00	1.00
Critical Care Medicine	IRL Totals	88	657	7.47	1.01
	Trinity Totals	10	148	14.80	2.00
Dentistry, Oral Surgery & Medicine	IRL Totals	200	761	3.81	1.14
	Trinity Totals	111	466	4.20	1.26
Ecology	IRL Totals	330	2,535	7.68	1.27
	Trinity Totals	84	881	10.49	1.74
Education, Scientific Disciplines	IRL Totals	83	110	1.33	0.67
	Trinity Totals	19	38	2.00	1.01
Emergency Medicine	IRL Totals	81	171	2.11	0.75
	Trinity Totals	4	12	3.00	1.06
Endocrinology & Metabolism	IRL Totals	289	2,145	7.42	0.92
	Trinity Totals	55	463	8.42	1.04
Engineering, Marine	IRL Totals	5	5	1.00	1.80
	Trinity Totals	1	5	5.00	8.98
Engineering, Mechanical	IRL Totals	207	421	2.03	1.08
	Trinity Totals	67	168	2.51	1.33
Engineering, Multidisciplinary	IRL Totals	150	493	3.29	1.30
	Trinity Totals	29	109	3.76	1.49
Entomology	IRL Totals	56	211	3.77	1.44
	Trinity Totals	14	39	2.79	1.06
Environmental Sciences	IRL Totals	697	3,325	4.77	1.04
	Trinity Totals	117	768	6.56	1.44
Ethnic Studies	IRL Totals	15	33	2.20	1.90
	Trinity Totals	2	10	5.00	4.32
Evolutionary Biology	IRL Totals	176	1,766	10.03	1.26
	Trinity Totals	58	582	10.03	1.26
Family Studies	IRL Totals	25	45	1.80	0.66
	Trinity Totals	3	11	3.67	1.34
Food Science & Technology	IRL Totals	1,167	5,221	4.47	1.33
	Trinity Totals	17	72	4.24	1.26
Gastroenterology & Hepatology	IRL Totals	354	3,447	9.74	1.43
	Trinity Totals	76	1,163	15.30	2.24
Genetics & Heredity	IRL Totals	687	9,500	13.83	1.44
	Trinity Totals	230	3,954	17.19	1.79



## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Geochemistry & Geophysics	IRL Totals	170	729	4.29	0.94
	Trinity Totals	33	209	6.33	1.38
Geography, Physical	IRL Totals	73	313	4.29	1.01
	Trinity Totals	14	144	10.29	2.43
Geology	IRL Totals	53	279	5.26	1.49
	Trinity Totals	12	91	7.58	2.14
Geosciences, Multidisciplinary	IRL Totals	413	2,019	4.89	1.29
	Trinity Totals	83	481	5.80	1.53
Criminology & Penology	IRL Totals	25	34	1.36	0.68
	Trinity Totals	2	4	2.00	1.00
Geriatrics & Gerontology	IRL Totals	92	450	4.89	0.92
	Trinity Totals	31	226	7.29	1.37
Gerontology	IRL Totals	46	192	4.17	1.01
	Trinity Totals	16	98	6.13	1.48
Hematology	IRL Totals	222	3,198	14.41	1.46
	Trinity Totals	41	566	13.80	1.40
History	IRL Totals	124	34	0.27	1.00
	Trinity Totals	40	15	0.38	1.37
History Of Social Sciences	IRL Totals	39	22	0.56	0.72
	Trinity Totals	6	5	0.83	1.06
Horticulture	IRL Totals	27	94	3.48	1.44
	Trinity Totals	3	12	4.00	1.65
Hospitality, Leisure, Sport & Tourism	IRL Totals	30	37	1.23	0.65
	Trinity Totals	1	5	5.00	2.64
Imaging Science & Photographic Technology	IRL Totals	9	36	4.00	1.26
	Trinity Totals	1	18	18.00	5.67
Immunology	IRL Totals	541	7,058	13.05	1.40
	Trinity Totals	187	3,935	21.04	2.25
Information Science & Library Science	IRL Totals	89	211	2.37	1.07
	Trinity Totals	5	23	4.60	2.08
Instruments & Instrumentation	IRL Totals	275	1,202	4.37	1.63
	Trinity Totals	27	127	4.70	1.76
International Relations	IRL Totals	78	105	1.35	0.90
	Trinity Totals	22	35	1.59	1.07
Limnology	IRL Totals	25	102	4.08	1.07
	Trinity Totals	8	41	5.13	1.35
Materials Science, Characterization & Testing	IRL Totals	27	33	1.22	0.91
	Trinity Totals	3	7	2.33	1.73
Materials Science, Composites	IRL Totals	21	79	3.76	1.57
	Trinity Totals	2	27	13.50	5.64

## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Materials Science, Multidisciplinary	IRL Totals	989	6,273	6.34	1.39
	Trinity Totals	366	3,658	9.99	2.19
Materials Science, Textiles	IRL Totals	3	18	6.00	3.29
	Trinity Totals	2	16	8.00	4.39
Mathematics	IRL Totals	492	934	1.90	1.39
	Trinity Totals	61	431	7.07	5.17
Mathematics, Applied	IRL Totals	522	1,260	2.41	1.36
	Trinity Totals	42	283	6.74	3.80
Mathematics, Interdisciplinary Applications	IRL Totals	135	2,643	19.58	5.74
	Trinity Totals	17	363	21.35	6.26
Mechanics	IRL Totals	215	807	3.75	1.44
	Trinity Totals	56	434	7.75	2.97
Medical Informatics	IRL Totals	45	71	1.58	0.51
	Trinity Totals	10	36	3.60	1.16
Medical Laboratory Technology	IRL Totals	67	382	5.70	1.42
	Trinity Totals	8	166	20.75	5.17
Medicine, General & Internal	IRL Totals	644	1,628	2.53	0.59
	Trinity Totals	81	515	6.36	1.47
Medicine, Legal	IRL Totals	29	36	1.24	0.43
	Trinity Totals	2	9	4.50	1.57
Medieval & Renaissance Studies	IRL Totals	19	5	0.26	1.13
	Trinity Totals	9	4	0.44	1.91
Microbiology	IRL Totals	794	6,819	8.59	1.20
	Trinity Totals	138	1,324	9.59	1.34
Microscopy	IRL Totals	13	60	4.62	1.26
	Trinity Totals	5	48	9.60	2.61
Multidisciplinary Sciences	IRL Totals	27	117	4.33	0.88
	Trinity Totals	7	62	8.86	1.80
Mycology	IRL Totals	28	166	5.93	1.65
	Trinity Totals	7	68	9.71	2.70
Nanoscience & Nanotechnology	IRL Totals	439	4,012	9.14	1.43
	Trinity Totals	168	2,285	13.60	2.13
Neurosciences	IRL Totals	838	7,702	9.19	1.14
	Trinity Totals	305	2,961	9.71	1.20
Nursing	IRL Totals	293	679	2.32	1.15
	Trinity Totals	63	164	2.60	1.29
Nutrition & Dietetics	IRL Totals	299	1,665	5.57	1.00
	Trinity Totals	40	295	7.38	1.33
Oceanography	IRL Totals	145	786	5.42	1.29
	Trinity Totals	7	51	7.29	1.73

## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Oncology	IRL Totals	605	6,515	10.77	1.20
	Trinity Totals	101	1,280	12.67	1.42
Orthopedics	IRL Totals	245	779	3.18	0.86
	Trinity Totals	20	83	4.15	1.12
Otorhinolaryngology	IRL Totals	105	200	1.90	0.73
	Trinity Totals	6	18	3.00	1.15
Paleontology	IRL Totals	73	305	4.18	1.27
	Trinity Totals	22	146	6.64	2.01
Parasitology	IRL Totals	98	536	5.47	1.14
	Trinity Totals	32	176	5.50	1.14
Pathology	IRL Totals	166	1,020	6.14	1.22
	Trinity Totals	31	264	8.52	1.70
Pediatrics	IRL Totals	392	1,322	3.37	0.95
	Trinity Totals	30	115	3.83	1.07
Peripheral Vascular Disease	IRL Totals	267	3,833	14.36	1.72
	Trinity Totals	37	396	10.70	1.28
Pharmacology & Pharmacy	IRL Totals	624	4,288	6.87	1.19
	Trinity Totals	168	1,220	7.26	1.26
Physics, Applied	IRL Totals	958	4,832	5.04	1.23
	Trinity Totals	301	2,282	7.58	1.84
Physics, Atomic, Molecular & Chemical	IRL Totals	252	1,119	4.44	0.91
	Trinity Totals	74	379	5.12	1.05
Physics, Condensed Matter	IRL Totals	659	4,012	6.09	1.29
	Trinity Totals	318	2,436	7.66	1.63
Physics, Fluids & Plasmas	IRL Totals	186	847	4.55	1.21
	Trinity Totals	45	286	6.36	1.69
Physics, Mathematical	IRL Totals	216	909	4.21	1.25
	Trinity Totals	56	476	8.50	2.53
Physics, Particles & Fields	IRL Totals	273	5,785	21.19	3.62
	Trinity Totals	65	768	11.82	2.02
Political Science	IRL Totals	218	473	2.17	1.41
	Trinity Totals	63	233	3.70	2.40
Polymer Science	IRL Totals	146	773	5.29	1.14
	Trinity Totals	32	248	7.75	1.66
Psychiatry	IRL Totals	589	3,953	6.71	1.10
	Trinity Totals	132	1,056	8.00	1.31
Psychology	IRL Totals	114	441	3.87	0.75
	Trinity Totals	40	226	5.65	1.09
Psychology, Experimental	IRL Totals	110	618	5.62	1.10
	Trinity Totals	51	400	7.84	1.54

## Appendix 1

Subject Area	Institution	Web of Science Documents	Times Cited	Cites per Document (Impact)	Impact Relative to Subject Area
Public, Environmental & Occupational Health	IRL Totals	429	1,650	3.85	0.91
	Trinity Totals	56	262	4.68	1.11
Remote Sensing	IRL Totals	9	61	6.78	2.06
	Trinity Totals	1	18	18.00	5.47
Respiratory System	IRL Totals	158	1,510	9.56	1.53
	Trinity Totals	11	187	17.00	2.73
Robotics	IRL Totals	12	32	2.67	1.63
	Trinity Totals	2	7	3.50	2.13
Social Sciences, Biomedical	IRL Totals	58	176	3.03	0.83
	Trinity Totals	7	26	3.71	1.02
Social Sciences, Mathematical Methods	IRL Totals	41	130	3.17	1.20
	Trinity Totals	4	27	6.75	2.55
Sport Sciences	IRL Totals	182	687	3.77	0.99
	Trinity Totals	21	84	4.00	1.05
Statistics & Probability	IRL Totals	108	246	2.28	1.02
	Trinity Totals	21	57	2.71	1.22
Surgery	IRL Totals	751	3,182	4.24	1.08
	Trinity Totals	62	402	6.48	1.66
Telecommunications	IRL Totals	232	410	1.77	1.09
	Trinity Totals	27	46	1.70	1.05
Transportation Science & Technology	IRL Totals	57	79	1.39	1.15
	Trinity Totals	30	50	1.67	1.39
Urology & Nephrology	IRL Totals	207	1,688	8.15	1.45
	Trinity Totals	5	57	11.40	2.03
Veterinary Sciences	IRL Totals	584	1,745	2.99	1.39
	Trinity Totals	24	75	3.13	1.46
Virology	IRL Totals	150	1,015	6.77	0.85
	Trinity Totals	21	171	8.14	1.02
Zoology	IRL Totals	161	522	3.24	1.06
	Trinity Totals	25	79	3.16	1.03

# Appendix 2

Trinity College Dublin Corporate Collaborations  
2000-2011



## Appendix 2

## Trinity College Dublin Corporate Collaborations 2000-2011

By Co-Authorship; Source: Thomson Reuters InCites

## Company Name

Abb Corp  
 Accelrys Inc  
 Across Barriers Gmbh  
 Affymetrix Inc  
 Agr & Agri Food Canada  
 Agrifood Res Finland Mtt  
 Agroparistech  
 Agroscope Fal  
 Agroscope Reckenholz Tanikon  
 Aib  
 Aixtron Ag  
 Akt Fischotterschutz Ev  
 Alcatel Lucent Bell Labs  
 Alcatel Lucent Technol  
 Alere Technol Gmbh  
 Alex Pharmaceut  
 Allergy Stand Ltd  
 Alliance Anim Genome Res  
 Almac Diagnost  
 Alnis Biosci Inc  
 Altea Genom Inc  
 Amer Inc  
 Amgen Europe Gmbh  
 Appl Biosyst Inc  
 Applied Neurosolut Inc  
 Apt Therapeut Inc  
 Arc Seibersdorf Res  
 Arm Ltd  
 Astrazeneca UK Ltd  
 Australian Railtrack Corp Lt  
 Awn Consulting  
 Basf Ag  
 Basf Se  
 Bausch & Lomb Inc  
 Bavo Europoort  
 Baxter Hyland Immuno  
 Baycrest  
 Bayer Ag  
 Bayer Cropscience  
 Bayer Healthcare  
 Beiersdorf Ag  
 Bessy Gmbh  
 Bibra Int Ltd

## Company Name

Biofluidix Gmbh  
 Biofrontera Pharmaceut  
 Biogen Idec Inc  
 Biolitec Ag  
 Biomarker Pharmaceut Inc  
 Bionor Ag  
 Bioreliance Inc  
 Blackrock Co  
 Blackwater Co  
 Boehringer Ingelheim Gmbh & Co Kg  
 Boehringer Ingelheim Pharmaceut Inc  
 Boeing Co  
 Boreham Consulting Engineers Ltd  
 Boyer Cropsci  
 Bp Explorat Operating Co Ltd  
 Brahms Ag  
 Bristol Myers Squibb Co  
 Bruker Daltonik Gmbh  
 Bur Waardenburg Bv  
 Burgoyne & Partners Llp  
 Buro Happold Engineers  
 Buro Happold Ltd  
 Bvm&S Certsas Mrcvs  
 Cambridge Cognit  
 Cangene Corp  
 Cargill Inc  
 Carl Stuart Ltd  
 Carlsberg Lab  
 Cavanaugh Hagan Pierson & Mintz  
 Celera Diagnost  
 Ceramoptec Gmbh  
 Charles Stark Draper Lab Inc  
 Chiron Corp Chiron  
 Vaccines Chiron  
 Vaccines Spa  
 Christie's  
 Citizen Watch Co Ltd  
 Clan Unity Int  
 Cleary Gottlieb Steen & Hamilton  
 Clondiag Gmbh  
 Colgate Palmolive Co  
 Comp Sci Corp  
 Compaq Comp Corp

## Appendix 2

Company Name	Company Name
Compureg Plzen Sro	Firmenich Co
Consolidated Fisheries Ltd	Fishawack Nexus Commun Inc
Converium Ltd	Forenaghts Stud
Corp Geol Ares	Forth
Creme Software Ltd	Foundry London Fraser
Csl Ltd	Hlth Care Frontier Sci
Ctec Inc	Europe Ltd Fuji Photo
Cytos Biotechnol Ag	Film Co Ltd Geha Mhc
Daimlerchrysler Ag	Gen Info Ltd
Dako As	Genebio
Dana Corp	Genego Inc
Dance Pharmaceut	Genentech Inc
De Crespigny Pk	Geneva Bioinformat Genebio Sa
De Novo Pharmaceut Ltd	Genome Therapeut Corp
Decode Genet Inc	Genta Inc
Degussa Ag	Geotech Consulting Grp
Dev Bank So Africa	Geotrace Technol Ltd
Diakim Consulting Ltd Mayfield	Gesell Biotechnol Forsch Mbh
Digital Gene Technol Inc	Gesell Biotechnol Forsch Mbh
Disney Res	Gesell Schwerionenforsch Gsi
Distribut Technol Ltd	Gkss Forschungszentrum Geesthacht Gmbh
Dow Corning Corp	Glantreo Ltd
Dr Jh Burguynne & Partners Llp	Glaxo Wellcome Inc
Drogalapitvany Budapest	Glaxosmithkline Biol
Drug Delivery International	Glaxosmithkline Consumer Healthcare Res & Dev
Dsm Fine Chem Adv Synth & Catalysis	Glaxosmithkline Inc
Dsm Res Dubble	Glaxosmithkline Pharmaceut
Crg Dunsany Co	Glaxosmithkline R&D
Dupont Co Inc	Glenburn
Dynatest UK Ltd	Greenpeace Ltd
Dyncorp I&Et Inc	Guinness Brewery
E Malling Res	Guinness Ireland
Eblana Photon Ltd	H Lundbeck & Co As
Elan Corp	Halcrow Grp Ltd
Elan Drug Delivery Ltd	Hamburg Outstn
Elan Pharmaceut	Handling Movement & Ergonom Ltd
Elekta Neuromag Oy	Henkel Kgaa
Eli Lilly & Co	Hess Corp
Embl Heidelberg	Hewlett Packard Corp
Endogastr Solut Inc	Hewlett Packard Dimo
Enterprise Oil Plc	Hibernian Investment Management
Entrust Inc	Hitachi Global Technol
Eurand Spa	Horphag Res
Euromed Marseille	Hortres Ltd

## Appendix 2

Company Name	Company Name
Iberia Airlines	Littlefuse Ireland Ltd
Ibm Corp	Live Vanguard Osogbo Nigeria & World Bank Countr
Ibm Res Gmbh	Lockheed Martin Informat Technol
Ibm Syst & Technol Grp	Lockheed Martin Solar & Astrophys Lab
Identigen Ltd	Lucent Technol
Immunex Corp	Lufa Itl Gmbh
Indigo Biosyst Inc	Lukaskrankenhaus Gmbh
Inesc Microsyst & Nanotechnol	Magnet Solut Ltd
Infineon Technol Ag	Magnetfabr Bonn
Innovent Ev	Makgadikgadi Site Support Grp
Integr Consulting Partners	Maxim Pharmaceut
Intel Corp	Merck & Co Inc
Intel Digital Hlth Grp	Merck Sharp & Dohme Espana Sa
Intel Ireland Ltd	Microbiol Specialists Inc
Intel Res	Millennium Pharmaceut Inc
Interferometrics Inc	Mitre Corp
Interleukin Genet Inc	Mixture Sci Inc
Intermed Discovery Gmbh	Miyota Co Ltd
International Monetary Fund	Monsanto Co
Intervet Int Bv	Motorola Labs
Io Graph Germany	Mott Macdonald
Irish Tar & Bitumen Ltd	Mp Biomed Llc
Isis Pharmaceut	Mtt Agrifood Res Finland
Jasco Uk Ltd	Namlab Ggmbh
Jh Burgoyne & Partners Llp	Nanosensors Gmbh
John Caunt Sci Ltd	Nec Corp Ltd
Johnson & Johnson Consumer Prod Inc	Nestec Ltd
Johnson & Johnson Pharmaceut Res & Dev	Network Rail
Kaiser Permanente No Calif Div Res	New England Biolabs Inc
Kellogs Co Great Britain Ltd Swords	Nissan Chem Ind Co Ltd
Kelman Ltd	Norchip As
Kessler Med Rehabil Res & Educ Corp	Norchip Ns
Kinexus Bioinformat Corp	Novartis Ag
Kleijnen Systemat Reviews Ltd	Novartis Vaccines
Kosan Biosci Inc	Novimmune Sa
Landcare Res	Novo Nordisk As
Laraghcon Lucan Co	Novozymes Inc
Latmos Ipsl Upmc	Nutrilite Div Access Business Grp Llc
Laxdale Ltd	Nutrim
Laxdale Res Ltd	Nv Organon
Legacy Res	Octoplus Bv
Lg Elect	Olanis Expert Syst Gmbh
Lilly	Opona Therapeut Ltd
Lilly Res Labs	Optiglass Ltd
Lincoln Pl	Orapharma Inc

## Appendix 2

Company Name	Company Name
Owl Res Ltd	Scott Wilson Ltd
Pa Consulting Grp	Seagate Res
Parc	Seagate Technol
Peak Ecol Ltd	Sepracor Inc
Pfizer Anim Hlth	Sgl Carbon Grp
Pfizer Inc	Shell Global Solut Int Bv
Pfizer Res & Dev	Shell Global Solut Uk
Philips Res Europe	Shell Res Ltd
Philips Res Labs	Shire Pharmaceut
Plasma Ireland Ltd	Showa Shell Sekiyu Kk
Plaxis Bv	Siemens Corp Res Inc
Port Sunlight	Siemens Ltd
Postech	Siemens Med Ireland
Procter & Gamble Co	Sigma Tau Ind Farmaceut Riunite
Protagen Ag	Sigma Tau Pharmaceut Co
Purina Nestle	Sincrotrone Trieste
Quinns Rd	Sincrotrone Trieste Scpa Ss
Quintiles	Sintef Microsyst & Nanotechnol
Ramboll Consulting Engineers	Sirota Survey Intelligence
Red Bull Gmbh	Skytech
Redrock Int Ltd	Smithkline Beecham Pharmaceut
Reinier Van Arkel Grp	Spatial Data Applicat
Res Engn Ltd	Sphingotec Gmbh
Retina Fdn Sw	Statoil Hydro Asa
Rhein Westfal Th Aachen	Stfi Packforsk Ab
Rhodia Rech	Sunstar Amer
Rhone Poulenc Rorer	Supelec Ietr
Rijk Zwaan Breeding Bv	Svalof Weibull Ab
Riken	Synchrotron Elettra Trieste
River Diagnost Bv	Synetix
Roche Discovery Welwyn	Taighde Mara Teoranta Carna
Roche Molec Syst	Tanzania Petr Dev Corp
Rosetta Inpharm	Targeted Genet Corp
Rothamsted Res	Teagasc
Roughan & Odonovan Consulting Engineers	Texas Agrilife Res
Rover Grp	Thales Microwave
Rowett Res	Thales Res & Technol
Rps Engn	Thomas Swan Sci Equipment Ltd
Samsung Display Devices	Thomson Csf
Samsung Elect Co Ltd	Tno Nutr & Food Res
Sanofi Pasteur	Transanalytics Llc
Sanofi Synthelabo Rech	Trikon Technol Inc
Santech Display Co Ltd	Tsuchiya Co Ltd
Sci Syst & Applicat Inc	Tullow Oil Plc
Sciona Inc	Ucb Pharma Sa

## Appendix 2

---

### Company Name

Ufr Sci Pharmaceut & Ingn Sante

Unilever Corp Res

Unilever R&D Sunlight

Unilever Seac

Ursapharm Arzneimittel Gmbh & Co Kg

Usda Ars Biol Ipm Res

Vale Inco Ltd Vartry

Res Ltd Vasogen

Ireland Ltd

Vereinigte Informat Syteme Tierhaltung Wv

Verre Floure

Vet Aqua Int

Vhi Healthcare

Viocare Technol Inc

Waterman Boreham Ltd

World Bank

Wyeth Ayerst Res

Wyeth Inflammat

Wyeth Res

Xilinx Res Labs

Xoma

Xoma Ireland Ltd

Xsil Ltd



# Appendix 3

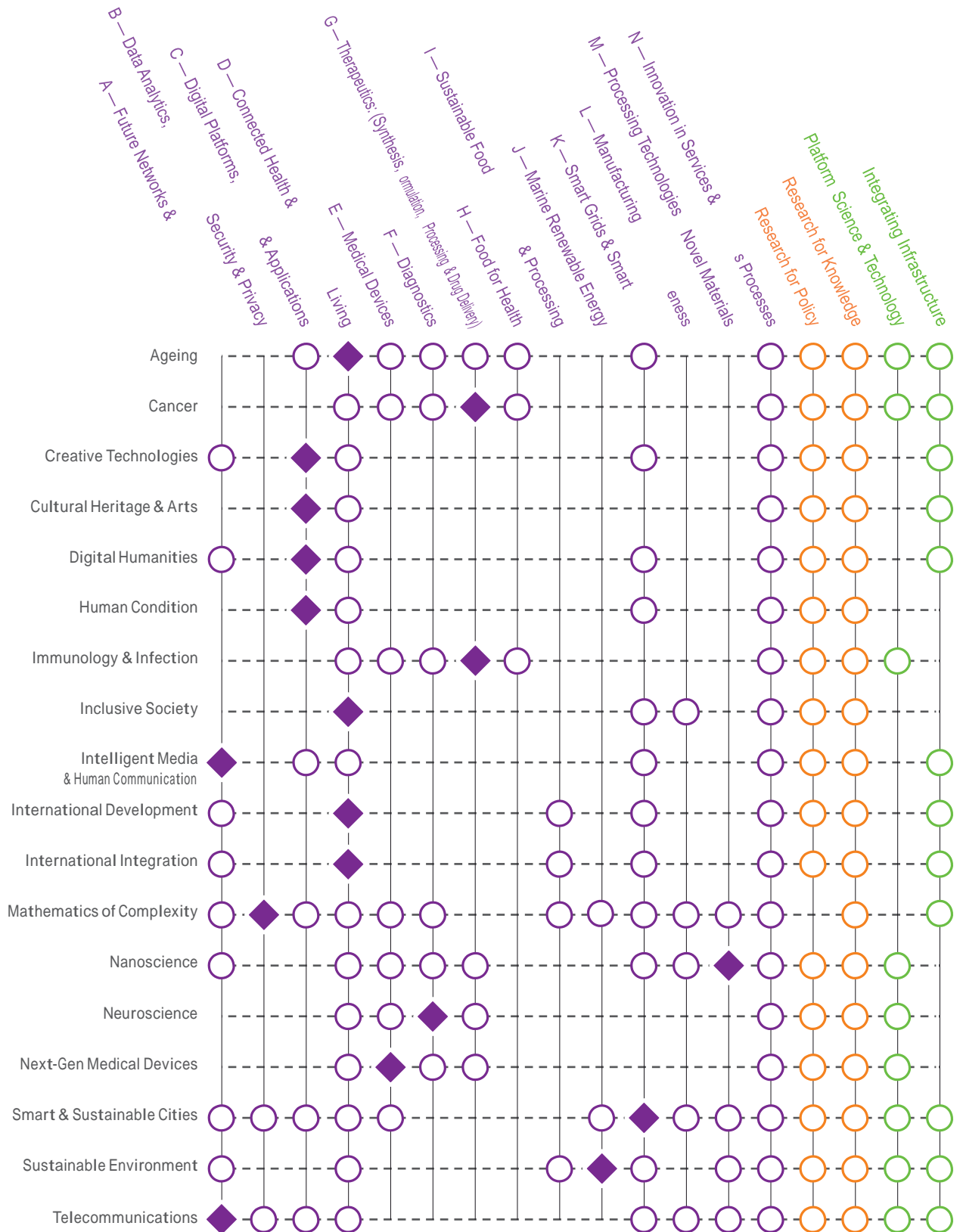
Recent Trinity College Dublin Campus Companies

## Recent Trinity College Campus Companies

	Company Name	Technology
ICT	<a href="#">Amanates Ltd</a>	Easy-animation tool
	<a href="#">EmpowerTheUser Ltd</a>	eLearning tool
	<a href="#">Glanta Ltd</a>	Hand wash monitor mk2
	<a href="#">Gofer Ltd</a>	Maths-teaching software
	<a href="#">Kinometrics Ltd</a>	Hand wash monitor
	<a href="#">NewGame Technologies Ltd</a>	Gaming platform
	<a href="#">PBOC Ltd</a>	Patient record-keeping
	<a href="#">Recitell Ltd</a>	Audio-visual tool <a href="#">Share</a>
	<a href="#">Navigator Ltd</a>	Risk-aware trading
	<a href="#">Sity Analytics Ltd</a>	Trust Analysis
	<a href="#">Tolerant Networks Ltd</a>	Delay Tolerant Networks
	<a href="#">Trecht Ltd (6.10.09)</a>	Sentiment Analysis
	<a href="#">Trinity Clinical Apps Ltd</a>	Phone app – medical
	<a href="#">Ussher Executive Education Ltd</a>	Executive education
	<a href="#">Xcelerit Computing Ltd</a>	Parallel computing
ICT/Physical Sciences	<a href="#">PixelPuffin Ltd</a>	Media post-production
	<a href="#">Sonitus Systems Ltd</a>	Noise monitoring
Life Sciences	<a href="#">Codex Oncology Ltd</a>	Oncology drug discovery
	<a href="#">Codex Discovery Ltd</a>	Drug discovery <a href="#">Jiva</a>
	<a href="#">Discovery Ltd</a>	Structural biology
	<a href="#">TriMod Therapeutics Ltd</a>	Cancer therapeutics
Physical Sciences	<a href="#">AERIAQ Filtration Ltd</a>	Air filtration
	<a href="#">Miravex Ltd</a>	Skin imaging analysis
	<a href="#">TrinityHaus Futures Ltd</a>	Consultancy
Psychology	<a href="#">Trinity Stamina Ltd</a>	Customised training
Translational Sciences	<a href="#">Biocroi Ltd</a>	Multiwell plates
	<a href="#">Neuropath Therapeutics Ltd</a>	CNS disorder treatment
	<a href="#">Synergy Flow Ltd</a>	Peripheral Stents
	<a href="#">Solvotrin Therapeutics Ltd</a>	Aspirin pro-drug

# Appendix 4

Research Themes Mapped to National  
Research Prioritisation Priority Areas



TCD Strategic Research Themes Mapped to National Research Prioritisation Priority Areas

- ◆ Primary Affiliation to NRPE Priority Areas
- Secondary Affiliation to NRPE Priority Areas
- National Research Prioritisation Major Priority Areas
- National Research Prioritisation Minor Priority Areas
- National Research Prioritisation Wider STI Areas

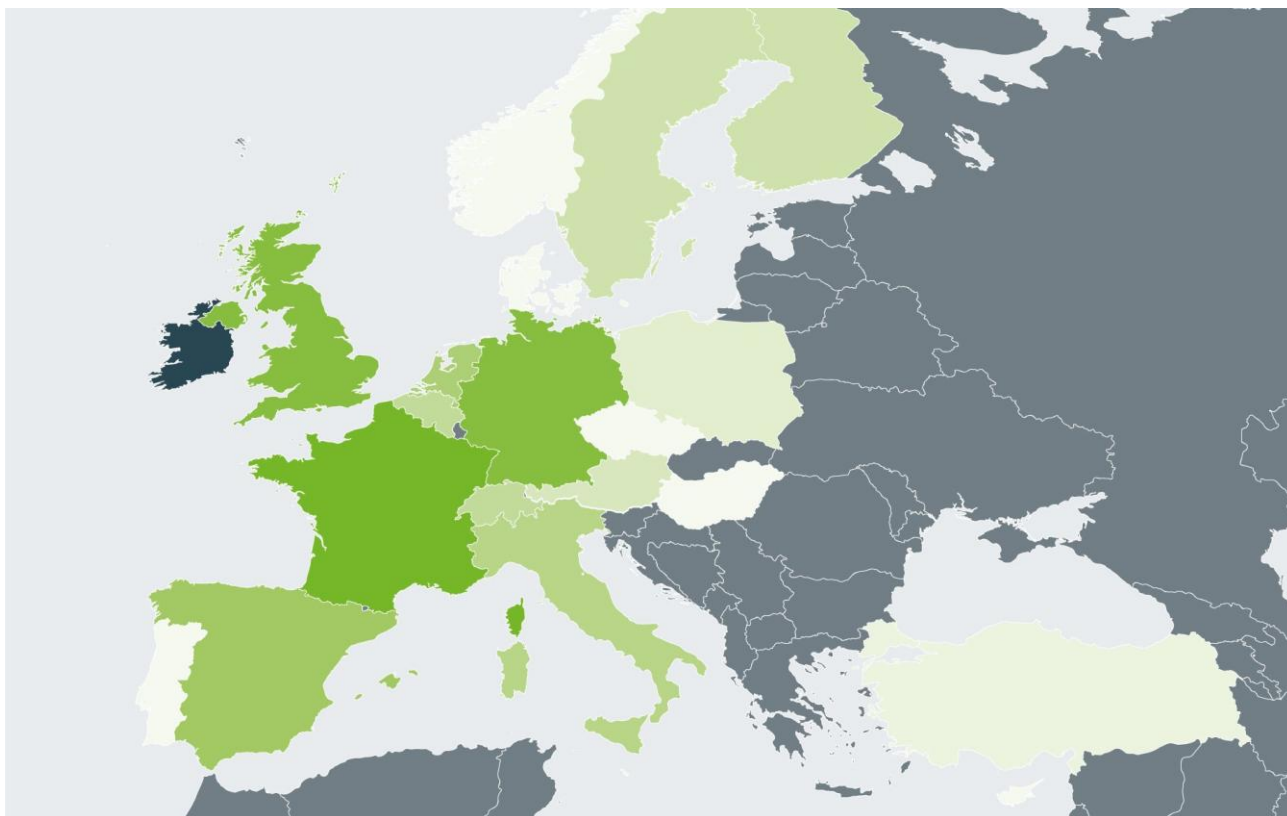
# Appendix 5

## Agreements with International Universities



## Appendix 5

### Agreements with International Universities



### Erasmus Exchanges



Country	Institution
AUSTRIA	Johannes-Kepler-Universität Linz
	Technische Universität Wien
	Universität Salzburg
	University of Vienna
BELGIUM	Lessius Antwerpen
	Bruges - Katholieke Hogeschool Brugge-Oostende
	KUL - Katholieke Universiteit Leuven
	Leiden University Meical Centre
	UCL - Université Catholique de Louvain
	Universite Libre de Brussels - Solvay Brussels Business School
CYPRUS	University of Cyprus
CZECH REPUBLIC	Charles University Prague
DENMARK	University of Copenhagen
FINLAND	Aalto University

## Appendix 5

Country	Institution
	Diaconian University of Applied Sciences
	Humanistinen Ammattikorkeakoulu, HUMAK
	Turku University of Applied Sciences (work placement)
	University of Helsinki
FRANCE	Ecole Nationale Supérieure de Chimie de Rennes
	École Supérieure de Commerce de Rouen
	EPSI Groupe ESSEC
	ESCP-EAP
	HEC-Ecole des Hautes Etudes Commerciales
	IEP - Institut d'Études Politiques de Grenoble
	IEP - Institut d'Études Politiques de Paris
	Institut d'Études Politiques de Bordeaux
	Institut National des Sciences Appliquées de Lyon - INSA
	Institut National Polytechnique de Toulouse
	Institut polytechnique de Grenoble (Groupe Grenoble INP) - Grenoble Institute of Technology
	National Graduate School of Engineering Chemistry of Lille
	Univeristy of Lille I
	Universite Blaise Pascal-Clermont-Ferrand 2
	Universite Claude Bernard - Lyon 1
	Université de Haute-Bretagne (Rennes II)
	Université de la Sorbonne Nouvelle (Paris III)
	Universite de Montpellier
	Université de Nice - Sophia Antipolis
	Universite de Orleans
	Université de Paris VII
	Université de Paris-Nanterre (Paris X)
	Université de Paris-Sorbonne (Paris IV)
	Université de Poitiers
	Université de Rennes I
	Université de Strasbourg
	Université de Toulouse 1
	Université de Toulouse Le Mirail (Toulouse II)
	Université de Toulouse Le Mirail (Toulouse II)
	Université François Rabelais (Tours)
	Université Joseph Fourier Grenoble I
	Université Lumière (Lyon II)
	Université Michel de Montaigne - Bordeaux III
	Université Montesquieu-Bordeaux IV
	Université Panthéon-Assas Paris II
	Université Paul Sabatier (Toulouse III)
	Universite Pierre Mendès France Grenoble
	Universite Sorbonne Nouvelle - Paris III
	Université Stendhal - Grenoble III
	Université Victor Segalen Bordeaux 2

## Appendix 5

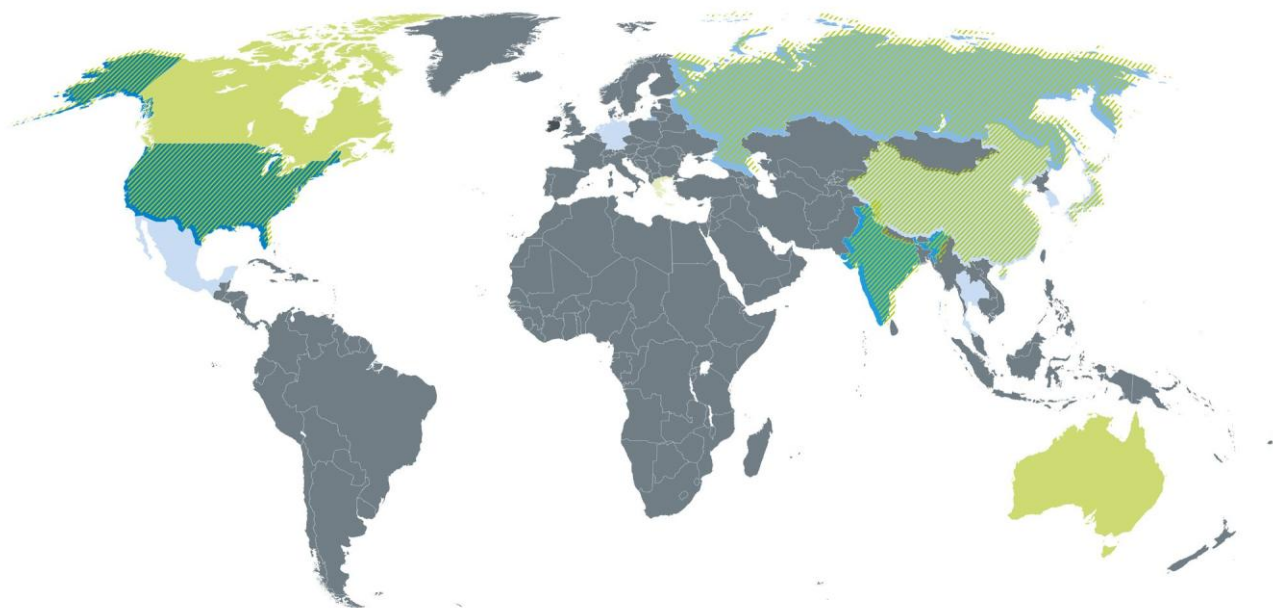
Country	Institution
	University of Reims
GERMANY	Albert-Ludwigs-Universität Freiburg im Breisgau
	Eberhard Karls University of Tübingen
	Freie Universität Berlin
	Friedrich Schiller Universität Jena
	Friedrich-Alexander-Universität Erlangen-Nürnberg
	Georg-August-Universität Göttingen
	Heinrich-Heine-Universität Düsseldorf
	Humboldt University Berlin
	Humboldt-Universität zu Berlin Johannes-
	Gutenberg-Universität Mainz Karlsruhe
	Institute fuer Technologie Ludwig-
	Maximilians Universität München
	Technische Universität Berlin
	Technische Universität Darmstadt
	University of Munich
	Universität Bielefeld
	Universität Bremen
	Universität des Saarlandes
	Universität Fridericiana (Technische Hochschule) Karlsruhe
	Universität Hamburg
	Universität Mannheim
	Universität Marburg
	Universität Oldenburg
	Universität Potsdam
	Universität Regensburg
	Universität Stuttgart
	Universität Trier
	Universität zu Köln
	University of Marburg
	University of Munich
	Wissenschaftl. Hochschule für Unternehmens- führung - Otto-B- Koblenz
HUNGARY	Liszt Ferenc Academy of Music
ITALY	Politecnico di Milano
	Politecnico di Torino
	Università degli studi di Bologna
	Università degli studi di Firenze
	Università degli studi di Pavia
	Università degli studi di Pisa
	Università degli studi di Siena
	Università degli studi di Trieste
MALTA	University of Malta
NETHERLANDS	Erasmus Universiteit Rotterdam
	Georg-August-Universität Göttingen

## Appendix 5

Country	Institution
	Katholieke Universiteit Brabant - Tilburg Universiteit
	Rijksuniversiteit Leiden
	Technische Universiteit Eindhoven
	Universiteit Maastricht
	Universiteit Utrecht
	University of Groningen
	University of Utrecht
NORWAY	University of Oslo
POLAND	Jagellonian University of Krakow
	Krakow University of Economics
	Uniwersytet Wrocławski
PORTUGAL	Universidade Técnica de Lisboa, Instituto Superior Technico
SPAIN	Universidad Carlos III de Madrid
	Universidad Complutense de Madrid
	Universidad de Alcala
	Universidad de Granada
	Universidad de León
	Universidad de Murcia
	Universidad de Salamanca
	Universidad de Sevilla
	Universitat de Barcelona
	Universitat Politecnica de Catalunya
	University of Oviedo
SWEDEN	Karolinska Institutet
	Kungliga Tekniska Hogskolan Stockholm
	Stockholms Universitet
	Umeå Universitet
	Uppsala Universitet
SWITZERLAND	Ecole Polytechnique Federale de Lausanne
	University of Zurich
	Universitat Basel (CRANN)
	Université de Fribourg
	Université de Geneve
	University of Lausanne
TURKEY	Istanbul Bilgi University
	University of Marmara
UK	Goldsmiths College (University of London)
	Royal Holloway College (University of London)
	Royal Scottish Academy of Music and Drama
	University of Aberdeen
	University of Aberystwyth
	University of Bath
	University of Durham
	University of East Anglia

## Appendix 5

Country	Institution
	University of Edinburgh
	University of Exeter
	University of Glasgow
	University of Manchester
	University of Newcastle
	University of St. Andrews
	University of Strathclyde



### Student Exchange Agreements (SEA) & Memorandums of Understanding (MOU)

#### SEA INSTITUTIONS



#### MOU INSTITUTIONS



#### SEA

Country	Institution
ARGENTINA	National University of Cordoba
AUSTRALIA	Australian National University
	Melbourne University
	Queensland University
	Queensland University of Technology
	Sydney University University
	of Melbourne University of
	Wollongon, NSW



## Appendix 5

Country	Institution
	Victoria University of Technology
BRAZIL	University of Sao Paula (Cluster)
CANADA	Dalhousie University, Halifax
	Ecole Polytechnique de Montreal (Cluster)
	McGill University
	McMaster University (TASSEP)
	Osgoode Hall, Toronto
	Queen's University
	Simon Fraser University, Burnby, Vancouver
	Toronto University
	Universite de Montreal, Montreal
	University of Calgary, Calgary
	University of Dalhousie (TASSEP)
	University of Manitoba
	University of Toronto (TASSEP)
	University of Waterloo, Waterloo
CHINA	Beihang University
	Beijing IT
	Chinese University Hong Kong, Hong Kong
	Fudan University
	Peking University
	Tonji University, Shanghai
	Tsinghua University
	University of Science and Technology Beijing
INDIA	Aristotle University of Thessaloniki
	Delhi University
	IIM Bangalore
	IISc Bangalore
	IIT Delhi
	IIT Madras
	J Nehru University
	NCBS Bangalore
	Thapar University
ISRAEL	TIFR Mumbai
JAPAN	Nara Institute of Science and Technology
	Senshu University, Tokyo
	Tokyo University
MALTA	University of Malta
NEW ZEALAND	Massey University
RUSSIA	Lomonosov Moscow State University
	Sofia University
THE NETHERLANDS	Rijksuniversiteit Groningen
	Rijksuniversiteit Leiden
	Rotterdam School of Management, Erasmus University

## Appendix 5

Country	Institution
	Technische Universiteit Eindhoven (Cluster)
	Tilburg University
	TU Delft - Delft University of Technology (Unitech)
	University of Groningen
	University of Utrecht
TURKEY	Istanbul Bilgi University
UGANDA	Makerere University
UK	Goldsmiths College (University of London)
	Imperial College London
	Institute of Education, London
	Loughborough University (Unitech)
	Royal Holloway College (University of London)
	University of Aberdeen
	University of Durham
	University of East Anglia
	University of Exeter
	University of Glasgow
	University of Liverpool
	University of Manchester
	University of St Andrew's
	University of Strathclyde, Glasgow
USA	Babson College, Massachusetts
	Berkeley UC Boston
	College Brown
	University California
	University Colorado
	University Columbia
	University
	Dartmouth College
	Emory, Atlanta
	Fisher College of Business, Ohio
	Franklin and Marshall College, Lancaster
	Gallaudet University
	Geneseo New York State University
	Georgetown University
	Georgia Institute of Technology
	Georgia Tech (Cluster)
	Goizueta Business School, Emory University, Georgia
	Gonzaga University
	Johns Hopkins
	New York University
	North Carolina State University, Raleigh
	Northwestern University
	Ohio State University

## Appendix 5

Country	Institution
	Osgoode Hall Law School
	Purdue University, West Lafayette
	San Diego University
	Stevens Institute of Technology
	Swarthmore College, Pennsylvania
	Texas AM University (TASSEP)
	The Scripps Research Institute
	The University of Oregon, Eugene
	UNC Chapel Hill
	University of Florida, Gainesville
	University of Illinois, Urbana
	University of Maryland, Baltimore
	University of Medicine and Dentistry, New Jersey
	University of North Carolina at Chapel Hill, Chapel Hill
	University of Penn State
	University of Pennsylvania University
	of Southern California University of
	Texas at Austin, Austin University of
	Virginia, Charlottesville University of
	Washington, Seattle University of
	Wisconsin, Madison
	Wake Forest University, North Carolina
	Washington & Lee, Virginia Washington
	and Lee Law School Amherst,
	University of Massachussets

## MOU

Country	Institution
CHINA	Tsinghua University
JAPAN	Tokyo University
SINGAPORE	National University of Signapore
SOUTH KOREA	Changwon National University
	Seoul National University
THAILAND	Khon Kaen University
GERMANY	Bamberg University
THE NETHERLANDS	Tilburg University
USA	Boston College
	Brown University
	Geneseo New York State University
	Gonzaga University
	San Diego University
	Stevens Institute of Technology
	UNC Chapel Hill
	Northwestern University

## Appendix 5

---

Country	Institution
RUSSIA	Lomonosov Moscow State University
	Sofia University
MEXICO	Ministry of Foreign Affairs of Mexican States
INDIA	Delhi University
	IIM Bangalore
	IISc Bangalore
	IIT Delhi
	IIT Madras
	J Nehru University
	Thapar University

---

# Appendix 6

## Sample List of Community Partners

## Sample List of Community Partners

Association for Higher Education Access and Disability	Inclusion Ireland
Age Action Ireland	Interaction Belfast
AkiDwA – the African and Migrant Women’s Network	Ireland en Route
ALD Dysphagia UK	Irish Deaf Society
The Adelaide & Meath Hospital, incorporating the National Children’s Hospital	Irishtown community
Amnesty International	Jack & Jill Foundation
ASPIRE– Asperger Syndrom Association of Ireland	Jobcare Ltd
Ballinclea Heights Residents Association Ltd	Local General Practices
Centre for the Care of Survivors of Torture	National AIDS Strategy Committee
Chester Beatty Library	National Council for the Blind
Confederation of Student Services in Ireland	National Educational Psychology Service
Credit Union	National Heart Institute Hanoi
Crosscare Disability Group	National Study of Travellers in Ireland
Cystic Fibrosis Ireland	Office of Tobacco Control
DeafHear	Older & Bolder
Deaf Kids	Priory Institute Tallaght
Diabetes Federation of Ireland	Professional organisations
Diaspora Women’s Initiative	Rathbeggan National School
Dochas Women’s Prison in Mountjoy	RDS
Doctoral Training for Development in Africa	Rediscovery Centre Ballymun
Research Grant funded by Irish Aid and the Higher Education Authority – multiple partners both in Ireland and overseas, mainly in Africa	Ringsend community
Dublin Docklands	Salters Chemistry Camp
Dublin Zoo	Schools Across Borders
Dunboyne National School	Social Work Department St. James’s Hospital
Dyslexia Association of Ireland	Special Olympics Ireland
Families of people with intellectual disabilities	Special Stories Ltd
Fatima Regeneration Board	St. Brigid’s Community Centre Waterford
Future Ireland	St. James’s Hospital
GAA	St. Joseph’s and St. Mary’s Schools for the Deaf
Gay Men’s Health Project	St. Michael’s Estate Community Council
HADD – Family Support Group for ADHD	St. Lawrence O’Toole Parish
HAPA – Horn of Africa People’s Aid	St. Lawrence O’Toole Primary School
Healing Through Remembering	St. Mary’s Boys National School Rathfarnham
Homeless Agency	St. Vincent’s University Hospital
HSE Dublin-Mid Leinster	Swift Festival at Trim
HSE St Brigid’s Hospital Ardee.	Tallaght
HSE South	Trinity Access Programme
I AM interagency Advocacy Network	Town of Clonmel
	Trocaire
	Unilink Programme
	Wexford County Council



# Appendix 7

List of Campus Companies Housed in Trinity  
Technology and Enterprise Campus 2012

## List of Campus Companies Housed in Trinity Technology and Enterprise Campus 2012

---

- |   |   |
|---|---|
| 1. <a href="#">Trino Therapeutics Ltd</a> | A spin off from the School of Pharmacy and Pharmaceutical Sciences, TCD, launched in September 2011. Trino is a drug discovery and early drug development company focused on Immunomodulatory therapeutics.   |
| 2. <a href="#">Glanta Ltd</a>             | A Trinity College Dublin spin-out company founded in Nov 2010 by to commercialise SureWash, an image processing technology to measure hand hygiene.   |
| 3. <a href="#">Crème Software Ltd</a>     | Founded in 2005 as a result of research carried out in the Trinity Centre for High Performance Computing(TCHPC) in collaboration with the Institute of European Food Studies over a period of more than five years. Creme provides web based software, data, training, support services and consulting services in the area of food, chemical and cosmetic exposure assessment.   |
| 4. <a href="#">Identigen Ltd</a>          | Founded in 1996 as a spin-out from the Institute of Genetics, Trinity College Dublin. IdentiGEN is a leading provider of DNA-based solutions to the agri-food industry with major operations in Ireland and the U.S.  |
| 5. <a href="#">Eblana Photonics</a>       | Founded in 2001 established out of a desire to commercialise a scalable laser manufacturing technology which had the capacity to drive down the cost of high performance, single wavelength lasers for diverse mass market applications.  |
| 6. <a href="#">Labcyte Ltd</a>            | Deerac Fluidics, trading as Allegro Technologies Ltd., was founded from research carried out in the School of Physics on the development and production of reliable, robust and user friendly liquid handling solutions, enabling the dispensing of microliter and nanoliter volumes of a wide range of fluids. They merged with Labcyte Inc, a US company in the same sector of precise low-volume liquid dispensing for life science applications, in January 2008. |
| 7. <a href="#">Cellix Ltd</a>             | Stemming from a collaborative partnership between the Department of Physics and Clinical Medicine (in Trinity College Dublin, Cellix was established in 2004 to develop an integrated cell based assay solution for the pharmaceutical and biotechnology industries.  |
| 8. <a href="#">Eneclann Ltd</a>           | Founded in 1998. Eneclann offers a wide range of Irish history and heritage services.   |

# Appendix 8

Proposal for the RIAM to become  
an Associated College of TCD

## Appendix 8

---

A world class learning and performance partnership for music.  
The foundation stone for multidisciplinary collaboration.  
A high impact vision that represents value for money.

---

### Contents

1.1	Executive Summary	3
1.2	The right partnership from a national perspective	4
1.3	Reflecting the potential of the partnership: 3 key development areas	5
	1.31 The Lir, National Academy of Dramatic Art	6
	1.32 TCD Centre for Composition and Contemporary Practice	7
	1.33 TCD School of Education	8
1.4	Conclusion: Safeguarding our cultural future	9

## Appendix 8

---

### 1.1 Executive Summary

Trinity College Dublin and the Royal Irish Academy of Music:  
Transforming Ireland's Musical Future.

The Royal Irish Academy of Music occupies a unique position in Ireland, as a specialist music conservatoire which provides the highest of international standards in instrumental and vocal tuition. It has well-developed international partnerships with over thirty leading conservatoires such as The Juilliard School, The Royal Northern College of Music, The Guildhall School of Music and Drama, the music faculty of DePaul University, Chicago and The Paris Conservatoire. The Royal Irish Academy of Music (RIAM) is active in promoting new standards in music education through its international touring activities, with recent performances in China, Korea, Japan, USA, and Europe. With a national and international student body at third and fourth level, renowned graduates such as Ailish Tynan, Celine Byrne, Tara Erraught, Finghin Collins, Peter Whelan, Soo Jung Ann and Sarah Moffatt to name but a few, continue to enjoy success on the world stage.

Trinity College Dublin has demonstrated a commitment to Arts Education and Research through the Initiative in Arts, Technologies and Culture, most recently in the area of dramatic performing arts education with the establishment of The Lir, National Academy of Dramatic Art. Linking research to practice and focusing on the interface between innovation and tradition are key values which TCD and the RIAM share.

The working group recommends that the Royal Irish Academy of Music become an associated college of Trinity College Dublin, with the objective of developing an internationally renowned centre of excellence in the performing arts.

#### Associated College status

Trinity currently has educational links with Marino Institute of Education, the Church of Ireland College of Education and the Church of Ireland Theological Institute through their status as Associated Colleges. The Associated College Degrees Committee, chaired by the Registrar of Trinity College, implements quality assurance processes. It is important to make a distinction between franchise and accreditation. Trinity does not involve itself in any arrangement that simply amounts to a straight validation of courses carried out in colleges external to our systems. Accreditation is therefore embedded in a developing partnership of collaboration and complementarity and deals with the quality assurance of external college provision, including programme design, delivery, recruitment, assessment, evaluation, provision, teaching, representation and support, not the actual work of students themselves. Should this proposal be accepted the RIAM would be invited to join this committee (or a similar body) with appropriate representation. It is envisaged that, in turn, representatives from Trinity will be invited to join the RIAM Board of Governors.

## Appendix 8

---

### 1.2 The right partnership from a national perspective

This partnership, based on closely aligned missions and values, will deliver the best results for Irish education for the following reasons:

#### Proximity

Located across the road from TCD, RIAM's Westland Row building forms a nexus between important TCD cultural centres such as the Oscar Wilde Centre for Irish Writing, The Science Gallery and The Lir, National Academy of Dramatic Art, all within a few minutes' walk of each other.

#### Building on a shared history

TCD and RIAM have a track record of working together for over a quarter of a century through the Bachelor of Music Education degree. Both institutions are confident of success in future cooperation based on a good working knowledge of each other's mission, and a shared commitment to a common ethos.

TCD's Initiative in Arts, Technologies and Culture has specialist centres of excellence in six areas: creative writing, dramatic arts, music composition, visual arts, creative technologies and cultural heritage. The Royal Irish Academy of Music would enhance TCD's flagship areas, complementing their shape and profile, and opening up further opportunities for multi-disciplinary collaboration. In addition, TCD's Schools of Education, and Film, Drama and Music offer the opportunity to exploit complementary specialisms to deliver innovative, collaborative programmes through shared expertise

Given Trinity College's existing strategy for integrating conservatoire education in a university context in the field of Drama (The Lir), the proposed partnership with RIAM will offer complementary conservatoire education in Music with the aim of sharing competencies and developing synergies across the spectrum of conservatoire training in the arts.

#### International best practice

The models for an extensive and fruitful collaboration of this kind, between a conservatoire such as the Royal Irish Academy of Music and a university such as Trinity College Dublin are rich and numerous; with examples including many of the world's finest institutions: like the Guildhall School of Music and Drama / London City University; the Royal Academy of Music / University of London; the Peabody Conservatory / The Johns Hopkins University; the Yale School of Music / Yale University; the Jacob School of Music / Indiana University; and the Royal College of Music / Royal Holloway University.

In addition, best practice examples of thriving international conservatoires include Guildhall School of Music and Drama, Juilliard School, the Royal Conservatoire of Scotland, and more. These particular institutions have coordinated and cooperative music and drama programmes – an exciting, new model for Ireland which could be developed between The Lir and RIAM.



## Appendix 8

---

### Sound basis of prior achievement

The fact that RIAM students have acquired a well-grounded formation in advanced musical literacy (including harmony and counterpoint) over 1st and 2nd levels ensures that the students, at the outset of their 3rd level course, will be poised for attaining a high level of excellence, by comparison with other areas of study, where catch-up courses are necessary prior to embarking on 3rd level work. Music needs to be taught intensively from an early age and this coordinated system is a central component in the educational strategy of the RIAM, safeguarding the quality of future programmes shared with TCD.

### A learning laboratory for music teachers – raising national levels of prior achievement

RIAM's open access teacher training programmes, aimed at the 7,000 private music teachers who enter their 42,000 students for our Local Centre Examinations, would be greatly enhanced by being devised and delivered with the assistance of existing expertise in TCD'S Schools of Education and Drama, Film and Music. Collaboration of this kind would result in both institutions making a meaningful contribution to raising national standards in prior achievement for music education, thereby delivering real and unique value in this wider context.

### Joint international recruitment

The Irish Government's agenda to promote internationalisation in education resonates strongly with the Royal Irish Academy of Music's own vision to develop a multi-cultural campus of the highest quality. This international focus reflects TCD's own goals of expanding its global reach to continue to attract the world's finest staff and students to Ireland's shores. Both institutions can cooperate on developing a joint international recruitment strategy by pooling resources.

### Value for money benefits

Innovative programmes could be delivered at no extra cost by collaboration and use of shared expertise, by directing existing teaching and administration time into new areas and by exploring shared recruitment. There is scope to investigate shared services to reduce costs.

### 1.3 Reflecting the potential of the partnership: Three key development areas

As an Associated College of TCD, the RIAM would undertake projects, modules and initiatives with The Lir, National Academy of Dramatic Art, the School of Drama, Film and Music and the School of Education, which would reflect the innovative and ground-breaking nature of this partnership. In addition to the activities which would be fruitfully undertaken between the three identified areas and the RIAM, further research-based initiatives could contribute new strands and modules to cross-faculty university programmes.

These new forms of activity would benefit both institutions' staff and students and help provide proactive leadership in artistic and educational practice. Through nurturing artistic excellence they would ultimately shape new kinds of practice

## Appendix 8

---

within the creative and cultural industries, thus redefining the learning community both in terms of its physical presence and extent of its intellectual reach.

### 1.31 The Lir, National Academy of Dramatic Art

With far reaching implications for the future education and training of performing arts students, (and thus adding enormous value to the student experience) and with two conservatoires underpinned by a culture of creativity, reflective practice and research, where curricula are not only up to date but leading the field in professional practice, this partnership represents a real and vital opportunity for Irish Education from a national standpoint.

In practical terms, management of the two conservatoires has already opened discussion for development in the following areas:

#### Cost Effective International Recruitment

The Lir and the RIAM have international recruitment built in to the core of their business model. Working together would enable a unique collaboration which could help showcase Irish talent nationally and internationally in an exciting way, for instance with joint showcases in London and New York. Foreign delegations visiting Ireland—like those who recently visited The Lir from the United Arab Emirates (Sharjah)—could see first-hand the quality our institutions offer, and thereby further increase our international recruitment.

Through combined international branding and recruitment, both conservatoires would share the costs of promotion and marketing. Such pooling of resources would both save money and greatly increase impact in promotional arenas such as the Performing and Visual Arts fairs in the USA, and other similar fairs throughout Asia and the rest of the world.

#### Opera development

Within the curriculum, the opportunities for new projects and modules are extensive. For instance from September 2012, RIAM opera scenes will be studied within The Lir, working with their technical team using students from various programmes there such as the Master in Fine Art in directing, the Master in Fine Art in Set and Costume Design, and the Professional Diploma in Stage Management and Technical Theatre. This partnership offers practical work for The Lir's students and allows RIAM to deliver high quality opera scenes in a cost effective way.

In order to progress this operatic partnership, RIAM has secured outside funding to create a one-year opera development post beginning September 2012, which has been designed to facilitate management of both conservatoires in working through the scheduling, programming and logistics for future collaborations.

#### Further Collaborative Modules

Composing music for theatre will form the basis for a new, exciting module using the combined expertise of The Lir and RIAM staff. This new module would offer more opportunities for further collaborative performance pieces. Other planned shared modules include acting for singers, and score reading for stage managers.

## Appendix 8

---

### Shared services

Through shared services, The Lir and the RIAM can immediately increase their efficiencies and savings. For example, the RIAM has proposed that it facilitate the The Lir through sharing its Human Resources and book keeping offices; and The Lir in return could facilitate the RIAM through sharing its marketing office.

### Business development – the Local Centre Drama Examinations

The business development opportunities offered through collaboration and sharing of expertise and resources have significant implications for the RIAM's Local Centre Examination System, and offer The Lir a potential new income stream from the development of a partnership approach to the Drama syllabus.

RIAM runs and coordinates a multi-million euro examination business which is functioning strongly in music and is less developed in drama. Management in RIAM and The Lir have discussed the re-positioning and re-designing of the drama syllabus within the Local Centre Syllabi. These syllabi form major structures and landmarks within the educational system and as such are important contributors to the preparation of a student for third-level programmes. Development of the drama syllabus in this way could thus lead to a stronger link between 1st, 2nd and 3rd level education within this sector.

### 1.32 TCD Centre for Composition and Contemporary Practice

Having the RIAM as an Associated College of Trinity College Dublin would present an unparalleled opportunity for modern composition in Ireland.

#### Collaboration between the performer and composer

At present, the RIAM hosts perhaps the most intensive and developed chamber music programme in the country, with extensive public performing opportunities for its participants. By turn, the Centre for Composition and Contemporary Practice at TCD hosts one of the most advanced music technology programmes on the island and provides renowned tuition across all compositional techniques. By bringing both institutions together, the RIAM could integrate new compositions into its chamber music programme; thereby giving unprecedented opportunity to the composition students to work with performers throughout the year and to see their works performed in public. The RIAM could thus form a hub for performances/workshops in new music at TCD.

In practical terms, September 2012 will see composition students of TCD and chamber groups of RIAM form bi-lateral partnerships, in which a composer will write for that group alone, who will in turn perform the works.

## Appendix 8

---

### Shared modules and international composition projects

In the area of theatre music, a new module will be created —drawing on faculty from the RIAM, the Centre for Composition and Contemporary Practice and The Lir.

In addition to this, new short projects such as those with the Paris Conservatoire and The Juilliard School (planned for 2013 and 2014) could be greatly enhanced through this collaboration. Association with leading international centres based in Paris and New York would enhance the reputation of both TCD and RIAM in composition.

### 1.33 TCD School of Education

RIAM and TCD's oldest relationship is through the School of Education. For over two decades, both institutions have run the successful Bachelor in Music Education degree. The time is right to build on this strong foundation and take a leadership position in driving the music teaching profession to reflect on best practice in music education nationally and internationally.

New developments include:

#### Master of Music Education and Doctorate of Music Education

Both the School of Music Education in TCD and RIAM are committed to moving beyond Bachelor level in Music Education to devise Masters and Doctorate programmes with three distinct streams: researching 'practice' (or performance-focused study), music composition, and the study of international best practice and trends in pedagogy. Both partners will build on their well-defined complementary skills to deliver relevant and collaborative programmes.

#### Bachelor of Music Education – new stream

One of the most significant movements in music education in Ireland over the past number of decades has been the 'Music Generation' project, promoting the value of music education in every community in Ireland, supported by private funding. Such community-based education requires a new kind of music teacher. TCD School of Education and RIAM are poised to develop, as partners, a new stream of the existing Bachelor of Music Education, with the aim of training and accrediting this new type of teacher.

#### Performing Arts Research

There is scope for shared Performing Arts Research initiatives, where researchers and practitioners could share their findings and contribute to cross-university activities through the development of streams and modules for post-graduate programmes, joint conferences, seminars, combined research projects, publications and more.

The impact of this innovative shared research would be far reaching and immediate in contributing strands to new and ground-breaking degree areas, from cultural entrepreneurship to arts management; from performance and new media to contemporary performance practice and performing arts leadership. The RIAM has exactly the right Staff on hand to feed in to such programmes straight away and thereby offer immediate new possibilities to the educational landscape.

## Appendix 8

---

### 1.4 Conclusion: Safeguarding Our Cultural Future

Partnership between Trinity College Dublin and the Royal Irish Academy of Music would produce a highly visible centre of musical excellence in Europe and beyond. **It** would enhance Ireland's reputation as a force in the creative arts, demonstrated by a dynamic and thriving educational partnership which delivers outstanding 21st century performing artists, composers and scholars.

These two institutions have the experience, history and credibility to grow together organically and to deliver on a vision that will resonate throughout Ireland for many decades to come.





# Appendix 9

A Report on the Creative Arts and Media  
at Trinity College Dublin

## Appendix 9

---

### Contents

1. Introduction	3
2. Trinity's Strategy for the Creative Arts, Technologies and Culture	3
3. Performing Arts	12
3.1 Dramatic Arts, Film Studies, Music Composition	12
4. Creative Writing, Literary Translation and Languages	13
4.1 Creative Writing and Literary Translation	13
4.2 Languages	15
5. Cultural Heritage, Digital Humanities and Visual Arts	16
5.1 Visual Arts	18
6. Creative Technologies	19
7. Conclusion	23

## Appendix 9

---

### 1. Introduction

For over four centuries, Trinity College Dublin has played a unique role in Ireland in creating knowledge and fostering culture through research led teaching and pioneering scholarship in the Arts and Sciences, a contribution that has made Trinity Ireland's most internationally recognised university and ranked it amongst the global elite of universities in the 21st century. In addition to producing many of the world's leading scholars, Trinity has over the centuries contributed enormously to Ireland's global reputation for literature and culture. In keeping with its tradition of innovation, over the last three decades Trinity has also gained an international status for Ireland in all of the performing arts. It is today also rapidly developing a profile for Ireland in the creative technologies and for producing spin out software development companies such as Havok and Kore.

Trinity is very proud of its iconic and historic association with the centre of Ireland's capital city and is deeply committed to actively contributing to the promotion of Dublin as an international city of learning, culture and innovation. It is particularly cognisant of its unique capacity to catalyse change drawing on its own strengths and its location in the midst of a diverse and dense cluster of established cultural and performing arts institutions and rapidly emerging creative industries. For some years it has been using its collaborative ethos to contribute to a new era of academic and research partnerships with these sectors. It now plans to draw on existing links with the Royal Irish Academy of Music and Dublin Institute of Technology to enter into a new era of strategic partnership with these two neighbouring city centre Dublin third level colleges. By harnessing specialisms and complementarities in the performing arts with RIAM and digital arts and creative technologies with DIT, Trinity seeks with this Global City Innovation Initiative (see see 5.2 and 5.3 earlier) to consolidate Dublin's position as a world class centre of excellence for research-led education and creative arts practice in the performing arts and creative technologies.

### 2. Trinity's Strategy for the Creative Arts, Technologies and Culture

Trinity has a tradition of innovation in the Arts and Humanities over many centuries. For instance, it has some of the world's oldest Chairs in Modern Languages, dating back to 1776. Its Chair in Music was established in 1764, one of the earliest such appointments in Britain and Ireland. It also introduced one of the first Chairs in English Literature in Britain and Ireland in 1867. In the last century it pioneered the first drama department in Ireland, in 1984. In 1996 it introduced two cutting edge interdisciplinary Masters programmes, again the first in Ireland. The Music and Media Technologies programme is a collaboration between the Departments of Music and Electronic and Electrical Engineering and has been at the vanguard of music technology in Ireland. The MSc in Interactive Digital Media has students with arts as well as technology backgrounds, producing such well-known graduates as John Gerrard and Grace Weaire. In 1997, Trinity established the first creative writing Masters programme in Ireland alongside the first dedicated practitioner centre, the Oscar Wilde Centre for Irish Writing in 1998. The first specialist undergraduate course leading to an honours degree in film studies was introduced in 2003, and the

## Appendix 9

---

first and only literary translation Masters in 2004.

In 2007, the MSc in Interactive Entertainment Technology was developed with Steve Collins, the co-founder of globally successful software company Havok, as course co-ordinator. Trinity established the award winning Science Gallery in 2008, one of three in the world leading the way in encountering science through the medium of art. In 2009, it launched the Arts Technology Research Laboratory, a collaborative partnership between the Schools of Drama, Film and Music, Computer Science, and Engineering to bring together film, video, sound production, theatre, dance, live art and installation in a state of the art digital environment. In 2011, in partnership with the Royal Academy of Dramatic Art in London, it opened Ireland's first National Academy of Dramatic Art (The Lir) with a suite of practice based programmes, including the innovative Masters in Fine Art degrees (in playwriting, stage design and theatre directing). In 2012 it launched a new Centre for Music Composition to consolidate Trinity's position at the cutting edge of contemporary music.

Since 2006 the Trinity Long Room Hub Arts & Humanities Research Institute, established through a PRTL Cycle 4 grant and housed since 2010 in an award-winning signature building at the heart of the historic campus, provides an important strategic focal point for linking the university with the city and its educational and cultural institutions. It creates multiple opportunities for cooperation, serves as a powerful enabler of innovative cross-cutting collaborative research, and provides a prominent forum for connecting academic research with public debate.

In recent years Trinity College has approached its long standing commitment to the creative arts and culture according to a number of strategic principles, focusing on activities that:

1. Build on existing core disciplinary strengths in a complementary way without unnecessary duplication, or undue distortion of the individual missions of participating institutions and enterprises;
2. Advance its collaborative ethos by developing stronger partnerships with neighbouring cultural institutions, creative industries, and third level educational institutions;
3. Develop research led programmes at undergraduate level and particularly at postgraduate level that focus on the creator/practitioner, provided the quality is excellent and develops the full capability of students;
4. Connect the Arts, Humanities and Sciences in new ways that will create impact internationally and produce graduates with deep knowledge and innovative practitioner skills such as engineers/scientists skilled in the Arts, or artists and humanists skilled in Technology.

In keeping with its propensity to set the pace for change, in 2009 Trinity incorporated these principles into a cohesive strategy for the Creative Arts, Technologies and Culture. This strategy provides an integrated framework to develop these three distinct but related areas of creative practice in which Trinity has recognised strengths. This cross disciplinary approach is quite unparalleled because its focus is as much about Trinity contributing to a new dynamic in Dublin city and region by leveraging the wealth of established and emerging creativity surrounding the university, as it is about promoting new levels of intra- and inter-institutional

## Appendix 9

---

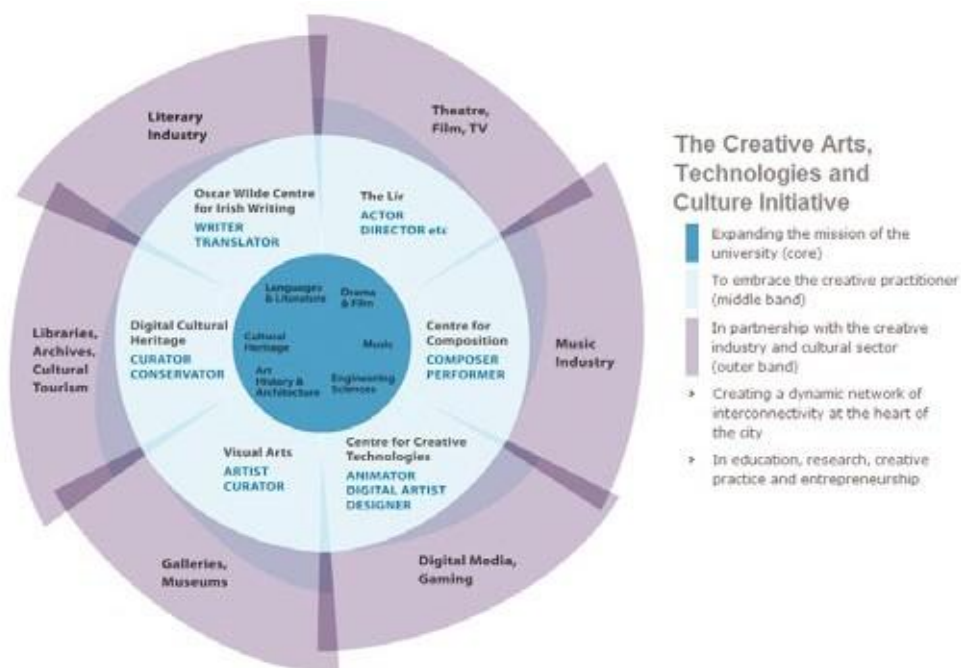
collaboration for activities of international consequence in this domain. With Culture and the Creative Arts prioritised as one of Trinity's eight major research themes in its Strategic Plan 2009-2014<sup>30</sup>, this strategy supports Trinity's commitment to advancing Dublin as a vibrant international city with creativity and enterprise at its core. Expanding the mission of the university to embrace the creative practitioner in full, this strategy also reflects Trinity's leadership in Ireland in driving a rethink of how creative arts practice is valued and supported within the traditional university structure. Indeed, for many of the university's academic staff creative arts practice is held in the same high esteem as creative arts scholarship, with many established, or emerging, as internationally recognised writers, poets, literary translators, directors, composers, artists and performers in their own right. The university has now come to recognise this form of creative excellence in its research quality metrics and in its recruitment and promotion procedures.

The diagram below depicts the vision and concept underlining Trinity's long term strategy for developing the creative arts, technologies and culture. It works as follows:

- In the dark blue centre are Trinity's core academic disciplinary strengths. A number of disciplines are singled out for the first phase of the strategy because of their strong connections with creative practice and represent six flagship areas. For instance, Drama is associated with acting and the theatre practitioner and the new Academy of Dramatic Art, The Lir. Other disciplines are encompassed in groups such as Cultural Heritage or Creative Technologies.
- The light blue band encircling the centre is the interface between the core disciplines and the cultural institutions and creative industries, and represents the creator/practitioner domain. It is the area of greatest opportunity for development in terms of creator/practitioner programmes in education and research.
- The creative and cultural industries are represented in the outer domain.
- Interconnectivity is the most important ingredient of this concept: across the bands in the form of extended networks and within the bands in terms of connections across disciplines and sectors.

<sup>30</sup> [http://www.tcd.ie/about/strategic\\_plan/](http://www.tcd.ie/about/strategic_plan/)

## Appendix 9



This approach has been informed by the well established strengths of existing research and practitioner programmes in a number of disciplines which represent six flagship area of creative practice:

- Creative Technologies (Schools of Computer Science, Engineering, Drama, Film & Music, the new Creative Technologies Research Centre and the Arts Technology Research Laboratory)
- Creative Writing and Literary Translation (Schools of English, Languages, Literatures and Cultural Studies, Drama, Film and Music with the Oscar Wilde Centre for Irish Writing and the proposed new Centre for Literary Translation)
- Cultural Heritage & Digital Humanities (Schools of Histories and Humanities and English, Trinity Long Room Hub, Trinity Irish Art Research Centre, the Library, Trinity's academic collections and museums)
- Dramatic Arts (School of Drama, Film and Music, The Lir – National Academy of Dramatic Art, and the Arts Technology Research Laboratory)
- Music Composition (School of Drama, Film and Music and the new Centre for Music Composition)
- Visual Arts (School of Histories and Humanities, TRIARC, the College Art Collections, Galleries and Museums)

This is a long term strategy for developing the Creative Arts, Culture and Creative Technologies at Trinity and in intensive collaboration with strong partners in education, culture and technology across the city of Dublin. It provides a mechanism to align the diverse disciplinary and collaborative programmes and initiatives underway under a single umbrella for greatly enhancing the potential for intra- and inter-institutional collaboration for maximum educational, research and performance impact.



## Appendix 9

---

Under the umbrella of this initiative Trinity College currently brings together 36 existing degree courses, 24 of which are at Masters or Doctorate level. A further six are currently under development. Two-thirds of these courses are collaborative and involve partnerships with educational and cultural organisations across Ireland and beyond.

Table 1. Students Enrolled in Research and Education Programmes at Trinity in the Domain of the Creative Arts, Technologies and Culture, 2010-2011.

UG students in the creative arts and technologies	682
PG taught masters students in the creative arts, technologies and culture	335
PG research students in related areas	351

All these courses build on Trinity's strong ethos of innovative research-led teaching at third and fourth level which enables students to participate in the process of discovery. They also reflect Trinity's focus on educating new types of graduates drawing on a fusion of strong academic and practitioner skills which unite to create a distinctive global brand of the scholarly practitioner and the practicing scholar, who will underpin the vibrant creative industry and cultural sectors of the future and be entrepreneurs as well as facilitators. In this distinct combination these courses attract high calibre students from across the world and from diverse backgrounds.

Table 2 provides a synopsis of these courses. For the purposes of this report, the Dramatic Arts and Music Composition are considered under the heading of the Performing Arts, and Cultural Heritage and the Visual Arts are considered together.

## Appendix 9

Table 2. Existing and Proposed Programmes at Trinity in the Domain of the Creative Arts, Technologies and Culture.

Level	Programme	Flagship Area	Host Schools/Centres	External Partners
8	Drama & Theatre Studies; TSM Drama	Performing Arts	Drama, Film & Music	
8	BA Film Studies; TSM Film Studies	Performing Arts	Drama, Film & Music	
9	MPhil Film Theory & History	Performing Arts	Drama, Film & Music	
9	MPhil Theatre & Performance	Performing Arts	Drama, Film & Music	
8	Bachelor in Acting (Hons)	Performing Arts	The Lir – National Academy of Dramatic Art	RADA
8	Professional Diploma in Stage Management and Technical Theatre	Performing Arts	The Lir – National Academy of Dramatic Art	RADA
9	Master in Fine Art (Playwriting, Stage Design, Theatre Directing)	Performing Arts	The Lir – National Academy of Dramatic Art	RADA
9	MEd Drama in Education	Performing Arts	Education	
8	BA Music; TSM Music	Performing Arts	Drama, Film & Music	
8	BMus Education	Performing Arts	Education	RIAM; DIT
9	MPhil Music Composition	Performing Arts	Drama, Film & Music; Centre for Music Composition	RIAM
10	PhD Music Composition (under development)	Performing Arts	Centre for Music Composition	
9	MRes Creative Arts Practice (under development)	Performing Arts	Drama, Film & Music	QUB
10	PhD Practice as Research (under development)	Performing Arts	Drama, Film & Music	
9	MPhil Creative Writing	Creative Writing & Literary Translation; Performing Arts	Oscar Wilde Centre; Centre for Literary Translation; Drama, Film & Music	Arts Council
10	PhD Creative Writing (under development)	Creative Writing & Literary Translation; Performing Arts	Oscar Wilde Centre; Centre for Literary Translation; Drama, Film & Music	
9	MPhil Irish Writing		Oscar Wilde Centre; English	
9	MPhil Popular Literature		English	
9	MPhil Visual and Textual Studies		Languages, Literature & Cultural Studies	
9	MPhil Medieval Language, Literature & Culture		Languages, Literature & Cultural Studies	
9	MPhil Comparative Literature		Languages, Literature & Cultural Studies	
9	MPhil Literary Translation	Creative Writing & Literary Translation; Performing Arts	Languages, Literature & Cultural Studies; the proposed Centre for Literary Translation; the Oscar Wilde Centre; Drama, Film & Music	Dalkey Archive Press; Ireland Literature Exchange

## Appendix 9

Level	Programme	Flagship Area	Host Schools/Centres	External Partners
10	Structured PhD Literary Translation (Proposed)	Creative Writing & Literary Translation; Performing Arts	Languages, Literature & Cultural Studies; the proposed Centre for Literary Translation; the Oscar Wilde Centre; Drama, Film & Music	Dalkey Archive Press; Ireland Literature Exchange
9	MPhil Childrens Literature (2011)		English	
8	TSM History of Art	Cultural Heritage & Visual Arts	Histories & Humanities; Trinity Irish Art Research Centre; Trinity College Art Collections	
9	MPhil Irish Art History (2003)	Cultural Heritage & Visual Arts	Histories & Humanities; Trinity Irish Art Research Centre; Trinity College Art Collections	Links with the Douglas Hyde Gallery; National Gallery; Hugh Lane Gallery; RHA; National Museum; and regional and commercial galleries
9	Module in Curatorial Practice as part of the MPhil Irish Art History and MPhil Public History & Cultural Heritage (2011)	Cultural Heritage, Digital Humanities & Visual Arts	Histories & Humanities; Trinity Irish Art Research Centre; Trinity College Art Collections	Links with the Douglas Hyde Gallery; National Gallery & Museum; Hugh Lane Gallery; RHA; and regional and commercial galleries
9	MPhil Public History & Cultural Heritage (2011)	Cultural Heritage, Digital Humanities and Visual Arts	Histories & Humanities; Trinity Irish Art Research Centre	The National Library; National Museum; Dublin City Gallery, the Hugh Lane; Dublin City Library and Archive; St Patrick's Cathedral
9	MPhil Digital Humanities & Culture (2011)	Cultural Heritage, Digital Humanities and Visual Arts	English; Histories & Humanities	National Library; National Gallery; Contemporary Music Centre; National Museum; Microsoft
10	Structured PhD Digital Arts and Humanities (2011)	Cultural Heritage & Digital Humanities; Visual Arts; Performing Arts	Long Room Hub; Arts Technology Research Laboratory	NUIG; NUIM; RIA; UCC; QUB; University of Ulster
9	MSc Interactive Digital Media (1996)	Creative Technologies	Computer Science	
9	MSc Music and Media Technologies (1996)	Creative Technologies & Performing Arts	Engineering; Drama, Film and Music	
9	MSc Interactive Entertainment Technology (2007)	Creative Technologies & Performing Arts	Computer Science; Engineering; Drama, Film & Music; the Arts Technology Research Laboratory	Microsoft; Demonware; Radical
9	MSc Health Informatics		Computer Science	

## Appendix 9

Level	Programme	Flagship Area	Host Schools/Centres	External Partners
9	MSc Computer Science (Networks & Distributed Systems)		Computer Science	
9	MSc Management of Information Systems		Computer Science	
9	MSc Mobile and Ubiquitous Computing		Computer Science	
	PG Dip in Computing with advanced interdisciplinary outlook		Computer Science	
9	MPhil Creative & Cultural Entrepreneurship (New 2013)	All Flagship areas	Computer Science; Drama, Film & Music; Histories & Humanities; Centre for Creative Technologies; Centre for Music Composition; The Lir – National Academy of Dramatic Art; Arts Technology Research Laboratory; Long Room Hub; Innovation Academy	Creative Industries; Performing Arts and Cultural Organisations; John F Kennedy Centre for the Performing Arts, Washington; Goldsmith University, London

An overview of the range of current and planned creative arts and media activities at Trinity is addressed in the following sections on Trinity's flagship areas in the Creative Arts, Technologies and Culture.

## Appendix 9

Table 3. Research Activity in the Performing Arts at Trinity.

Major Research Themes	Research Groups/Centres	Collaborations	Related Programmes
Interculturalism and Globalisation in Performance	The Lir – National Academy of Dramatic Art (Drama, Film and Music) Samuel Beckett Theatre (Drama, Film and Music)	RADA, RIAM, DIT, QUB Theatre, film, and music industry collaborations such as the Centre for Creative Practices; the Factory; Darklight Film Festival; Dublin City Gallery, the Hugh Lane and APT Alliance; Princeton; National Concert Hall; Ensembles such as Crash Ensemble and Ensemble Avalon (in residence)	The Lir: BA Acting; Prof Dip Stage Management & Technical Theatre; MA Fine Art (Stage Design, Light Design, Directing)
Digital Culture and Performance	Acoustic interculturalism: listening to performance; emerging collaborative theatre practices in Ireland; theatre riots as performance; dance and somatic performance; Irish Film & TV Research Online		Drama, Film and Music: BA Drama & Theatre; BA Film Studies + other;
Music Composition and Performance	Centre for Music Composition (Drama, Film and Music) Composition and algorithmic composition, spectral music; instrumental works to experimental music theatre, opera and dance; history of music; copyright law in music.	IBM, Google, Intel, Microsoft and Apple	Education: BA Music Education
Irish Theatre and Film: Histories and Representations	Arts Technology Research Laboratory (Drama, Film & Music and Creative Technologies Centre) Transposable tools for integrated media performance; curating new media art; responsive environments in art		MPhil Theatre & Performance; Film, Music & Theatre; Music & Media Technologies; Music Composition (2012)
Arts education	Arts Education Research Group (Education) Irish Film & Television Online		MEd Drama in Education  Structured PhD Digital Arts and Humanities (Arts strand)

## Appendix 9

---

### 3. Performing Arts

While Trinity College Dublin has had a centuries-long tradition of producing writers for the stage and contributing enormously to Ireland's global reputation for literature and culture, in the past three decades it has also gained an international reputation for producing internationally renowned practitioners in all the performing arts.

#### 3.1 Dramatic Arts, Film Studies, Music Composition

As Table 2 indicates, the 8, 9 and 10 degree programmes of the School of Drama, Film and Music all combine the skills of both the artist and the scholar. Trinity College's distinctiveness in the provision of performing arts education is the confluence of creative practice and creative scholarship. It is also unique in that it delivers blended learning in the form of academic programmes in the performing arts as well as conservatoire training in the dramatic arts.

The Lir – National Academy of Dramatic Art is the first and only institution in Ireland to offer an honors degree in Acting. It is the first to offer undergraduate education in stage management and technical theatre, and it initiated the first Master in Fine Art degree in the disciplines of stage design, theatre directing and playwriting. The placing of conservatoire education within a scholarly university context, while maintaining the uniqueness of each approach to learning, produces the scholar who is a proficient artist in his or her own right, as well as a practitioner who can work at the cutting edge of the discipline from a scholarly perspective. The Lir has a formal association with the Royal Academy of Dramatic Art in London and close partnerships with theatres and theatre companies throughout the island of Ireland, thus it is embedded within the national performing arts industries but has an international reach and, indeed, a global partner.

To further develop its distinctive approach to Performing Arts education in Ireland, Trinity College seeks to replicate this dramatic arts model in music education with the development of closer ties with its neighbour, the Royal Irish Academy of Music (see Appendix 8). Music education in Trinity has key strengths in musicology, music technology and music composition. The RIAM has an international reputation in producing interpretative musicians. The proposed link with the RIAM as an Associated College of Trinity will release synergies between each institution's core strengths. It also has the potential to facilitate further collaboration at many levels.

Currently Trinity's School of Education has formal links with the RIAM in the form of a BMusEd degree. Trinity College seeks to develop that collaboration further through the development of level 9 and level 10 programmes in the same area. Trinity's Centre for Music Composition could also raise its profile considerably through closer collaboration with emerging interpretative musicians from the RIAM. Further, the primary drama conservatoire (The Lir) also proposes to link with the RIAM as the primary music conservatoire in developing new modules and courses in opera training as well as in the delivery of second level preparatory education which feeds into the quality of level 8 entrants. There is scope, too, for sharing support services and marketing expertise.



## Appendix 9

Film Studies is a relatively new subject in Trinity College and though primarily scholarly in its first years it is now, through a philanthropic donation, seeking to re-orient the delivery of its education through film practice (in the areas of screenwriting and digital video production). Existing resources in Trinity, such as MoCap (motion capture) and Arts Technology Research Laboratory (ATRL), provide a context within which Film Studies as a practice can be nurtured. This is particularly relevant in the development of a new joint degree with Queen's University Belfast (MRes in Creative Arts) in which QUB can offer its world-class expertise in Sonic Arts (at the Sonic Arts Research Centre), and its increasingly international reputation in documentary cinema (in Film Studies). Trinity College will bring to this new degree its longstanding practical expertise in the Dramatic Arts and its excellence in Music Composition through the provision of this proposed joint degree with QUB, as well as the partnerships with the conservatoires, RIAM, and The Lir. In sum, Trinity College aims to engage performing arts practitioners in the research and development, from Level 9 and beyond, of new artistic forms with global impact.

Table 4. Research Activity at Trinity in Creative Writing and Literary Translation.

Major Research Themes	Research Groups/Centres	Collaborations	Related Programmes
Irish writing in English: 16th century to present	Oscar Wilde Centre for Irish Writing (English)	Arts Council of Ireland Ireland Literature	MPhil Creative Writing
Cultures of translation and translations of culture	Creative writing (poetry, fiction, drama); Research fellows in Irish writing and creative writing; the literature teaching of the Irish Studies undergraduate degree  Proposed Centre for Literary Translation (Languages, Literatures and Cultural Studies) Theory and practice of translation; translation and censorship, law and translation, intercultural and intracultural negotiation, comparative literature, textual and visual transpositions, migrant literature, migration, multilingualism, multiculturalism and identity	Exchange The Gallery Press Dalkey Archive Press Russkiy Mir Cultural Foundation Gorky Literary Institute Moscow Dublin City Library Dublin UNESCO City of Literature Seamus Heaney Centre, QUB The Rooney Prize in Irish Literature	MPhil Literary Translation

#### 4. Creative Writing, Literary Translation and Languages

The creative writer holds a special place within the literary tradition of Trinity College. The Schools of English, of Languages, Literatures and Cultural Studies, and of Drama, Film and Music, have their own well established strengths in fostering this tradition.

##### 4.1 Creative Writing and Literary Translation

The Oscar Wilde Centre for Irish Writing (21 Westland Row, the birthplace of Oscar Wilde) was established in 1998 and is the focus for creative writing in Trinity. Regarded as a cultural leader in the field, the Centre is the base for the MPhil in

## Appendix 9

---

Creative Writing which is practice based and was created by renowned scholar-poets Brendan Kennelly and Gerald Dawe. Students, who come from many parts of the world and from different age and cultural backgrounds, interact with leading national and international writers, critics and editors and produce an annual anthology of their work. The School of English is shortly to establish the new Seamus Heaney Chair in Irish Writing, a senior academic position sponsored by a generous benefaction and initiated to further develop the high profile of research and teaching in Irish literature, culture and creative writing in the School of English and Oscar Wilde Centre (OWC).

The OWC functions as a link between Trinity and cultural partners including the Arts Council of Ireland, which co-sponsors the Irish Writer Fellow, and various local links with Dublin City Libraries and UNESCO City of Literature.

Under the auspices of the OWC, the Schools of English, of Languages, Literatures and Cultural Studies and of Drama, Film and Music have collaborated to forge new links between the creative and critical, literary practice and the profession of publishing and translation, and the market and the media, to provide a new paradigm of interdisciplinary creative literary practice. New adjunct appointments of distinguished writers and literary industry experts are already helping to deliver these objectives such as Richard Ford – the highly regarded American novelist; Jonathan Williams – literary agent and editor; Peter Fallon – poet and publisher; and Sir Terry Pratchett – the hugely successful novelist. Also of huge impetus are the very successful writer in residence appointments to the Oscar Wilde Centre in partnership with the Arts Council of Ireland. Recent Irish Writer Fellows include Hugo Hamilton and Philip Davison. The School of English also coordinates the annual Rooney Prize for Irish Literature.

Shared workshops in translation, playwriting and the practice of writing are providing students with a genuinely creative space without borders where practitioners and critics, national and international, university and society can act and interact. It is proposed to introduce a PhD in Critical and Creative Writing which will be based in the Oscar Wilde Centre. This programme will extend and progress the already significant practice-based literary and artistic achievement of the MPhil programme by including creative non-fiction, travel writing, editing and book publishing, and also build upon the links between the Masters programmes in creative writing and literary translation.

Of growing importance are new interdisciplinary partnerships with institutions within the literary industry. One of the most exciting developments in this field is the proposed establishment of a Centre for Literary Translation (CLT) between the School of Languages, Literatures and Cultural Studies, the Ireland Literature Exchange, and Dalkey Archive Press, which is currently relocating from the University of Illinois to Dublin. The Centre would be the first of its kind in Europe, and would place Trinity and indeed Dublin city at the forefront of cultural and literary exchange in a global dimension. It would be the home of the School's MPhil in Literary Translation and will bring together business, culture, research, and the training of cultural practitioners in an innovative and mutually enriching cluster. It will also facilitate increased outreach to communities in Dublin, Ireland,

## Appendix 9

---

and abroad, and the generation of funding for activities related to literature and its translation. The CLT will transform the environment for MPhil and PhD students in Trinity College by providing opportunities to bridge the divide between the theory and practice of literary translation, creative writing and editing and the realities of the world of publishing, marketing and distributing which fashions their careers. The CLT will also establish and consolidate through Enterprise Ireland and cultural institutes a network of partnerships around the world which will contribute to the development of Ireland's overall relations with the countries concerned; and will make Trinity a major hub for international cultural, social and intellectual exchange positioning it in the global market as a centre of educational excellence.

A programme for a series of visiting translators in residence was established in 2011 with Ireland Literature Exchange, Dublin City Public Libraries, and Dublin City Council, with the first visiting translators coming from Russia and China. In 2012 Trinity collaborated with the Gorky Literary Institute (Moscow) to publish a biennial journal to showcase contemporary Irish Literature in translation into Russian. In collaboration with Dublin City Library and the Russian Cultural Foundation, Russkiy Mir, Trinity College will establish in 2014 a Russian Cultural Institute for Ireland. It is proposed to introduce a PhD in Literary Translation which would be based in the Centre for Literary Translation.

In the future, it is proposed to consolidate Trinity's distinctive strengths in creative writing and literary translation and its extensive partnerships and relationships to develop a Literary Exchange Quarter based at the Westland Row-Lincoln Gate end of Trinity College. This proposal, which has civic and commercial added value, will focus on the historical and literary significance of this part of inner city Dublin, alongside the numerous cultural institutions currently based in the area, such as the RIAM, the Alliance Francaise, the Cervantes Institute, the Goethe-Institute, the Instituto Italiano, and the National Gallery.

### 4.2 Languages

The proposed Centre for Literary Translation and its related courses are embedded in the much wider provisions for the study of languages and their cultures in Trinity College. Advanced linguistic skills and highly developed cultural competencies are vital for Ireland as an outward-looking society that embraces an international perspective and claims its place among the European nations and in a globalized world.

Trinity College was one of the first universities worldwide to establish the study of modern continental languages and holds the oldest Chair of German in the world, dating back to 1776. Today it acknowledges this critical importance of languages by giving them a central place in a range of multidisciplinary degree programmes which combine the study of languages and their cultures with Business, Law and Computer Science or within integrated courses such as European Studies and Irish Studies. In our thriving School of Languages, Literatures and Cultural Studies over 1,000 students study in 23 undergraduate degree combinations and six taught postgraduate programmes. The School teaches more than a dozen European languages including, as the only university on the island, Russian and Polish to degree level. Distinct features of the study of languages in Trinity College are:

## Appendix 9

---

- The combination of advanced language competence with in-depth study of culture, literature and society of the target language;
- Integrated programmes that combine general language and cultural competencies with the teaching of subject specific knowledge and the specialist register;
- The provision of a mandatory Erasmus year abroad in the majority of programmes, where students study their specialist subject through the target language;
- A focus on transferable skills that are especially developed through language learning such as communication skills, creativity, flexibility and tolerance.

Furthermore, the Centre for Language and Communication Studies offers optional languages courses, in 12 languages including Turkish, Korean and Japanese, to students from all degree programmes.

This broad provision of language courses for all students and the combination of advanced language proficiency with highly developed cultural competencies in our degree programmes are together addressing the urgent shortage of language skills in the Irish Labour market. They are also embodying and promoting the understanding and practices of cultural and linguistic diversity, thus contributing considerably to keeping Ireland open to cultural exchange and dialogue. Together with our prominent related research clusters on questions of European identity and the dynamics of intercultural exchange, this multi-faceted integration of language provisions into the programme structures of Trinity College are of defining importance for us as a university of global consequence.

### 5. Cultural Heritage, Digital Humanities and Visual Arts

Trinity College Dublin is steeped in cultural heritage and its historic city centre campus is uniquely surrounded by a thriving cluster of cultural institutions with similar collections and traditions. In an unprecedented level of collaboration, Trinity is partnering with these institutions to create new forms of learning, professional practice, research, and outreach, in tangible expressions of cultural heritage enabled by new technologies.

This flagship area is underpinned by a distinctive collaboration between a set of academic disciplines – history of art and architecture, classics, drama, film, history, languages, literatures and music – and the College Library, Ireland's largest library and a renowned cultural institution with its own extraordinary historical and legal deposit collections. In forging new models of engagement with the cultural institutions in Dublin city centre, it is drawing on historic connections with Trinity dating back to the early years of their existence. To develop new joint programmes in education, scholarship and exhibition, in 2010 a Cultural Coordinator was appointed in partnership with the National Library of Ireland. This appointment was the first of its kind in Ireland. In 2011, two new Masters programmes – in Public History and Cultural Heritage and Digital Humanities and Culture – were introduced in partnership with a number of cultural institutions which had strong

## Appendix 9

practitioner dimensions including internships. The MPhil in Public History and Cultural Heritage aims to give its students a thorough grounding in public history, and to provide them with a unique preparation for the management of cultural heritage. The MPhil in Digital Humanities and Culture provides students with highly specialised IT skills and an advanced understanding of how these skills can be applied to a wide variety of digital objects (text, image, audio, and video). Trinity is also the lead national partner in the PRTL funded structured PhD in Digital Arts and Humanities. This programme is training a new generation of research students in the application of new media and computer technologies in the arts and humanities. The digital arts strand is housed in the Arts Technology Research Laboratory and there are plans to collaborate with DIT's GradCAM in this domain.

Table 5. Research activity at Trinity in Cultural Heritage, Digital Humanities and Visual Arts.

Major Research Themes	Research Groups/Centres	Collaborations	Related Programmes
Culture, Memory & Identity	Trinity Long Room Hub Arts and Humanities Research Institute	NUIM, RIAM, UCC	MPhils:
Use of digital technologies for the interrogation, dissemination, and preservation of cultural heritage; development of new methodologies and new research questions	Trinity Irish Arts Research Centre	QUB, Univ of Ulster	Irish Art History; Public History & Cultural Heritage; Digital Humanities & Culture
	Trinity Library	The National Library, Gallery, Museum and Archives, Dublin City Libraries,	
	College Museums (Weingreen, Herzog Centre, Geology Museum)	Dublin City Gallery, The Hugh Lane,	
	Galleries (Science Gallery and Douglas Hyde)	St Patrick's Cathedral, RHA, Contemporary Music Centre, Microsoft, IBM	
	Modern Art Collections		Structured PhD Digital Arts and Humanities (humanities strand)
	EU Funded Digital Humanities Projects:		
	CENDARI (Collaborative European Digital/Archival Research Infrastructure)	The 5 European digital humanities projects involve over 50 partners across Europe including universities, cultural institutions, standards consortia, research councils etc.	
	DARiAH (Digital Research Infrastructure for the Arts and Humanities)		
	CULTURA – (ICT Integrated programme in cultural heritage)		
	DigCurV (Digital Curator Vocational Education)		
NEDiMAH (Network for Digital Methods in the Arts and Humanities)			

Under the auspices of Trinity's Long Room Hub Humanities Research Institute and the Arts Technology Research Laboratory, Trinity is a national and international leader in the Digital Arts and Humanities with staff in the School of Computer Science as well as in the Faculty of Arts, Humanities and Social Sciences. The potential of this paradigm to transform the traditional boundaries of knowledge and language is evidenced in the interest of leading IT companies, especially IBM, Microsoft, Intel and Google, in collaborating with Trinity to explore the vast depositories of knowledge and content to forge the research tools and technologies of the future. Our links with industry and our international reputation in this field are already leveraging increased levels of philanthropic funding. New positions in



## Appendix 9

---

Digital Humanities, funded by benefactions inter alia from UBM have been created to provide strategic leadership in developing this major dimension of University activity.

Trinity College is also involved in a number of pioneering FP7 funded European projects in the Digital Humanities. CENDARI (Collaborative European Digital/Archival Research Infrastructure) will build a research infrastructure for medieval and modern history. The project is coordinated by Trinity and includes thirteen partners from across Europe, including Kings College London, the Czech National Library, the University of Göttingen and the Mathematical Institute of Serbian Academy of Sciences. The project will build both a digital infrastructure and a comprehensive network of scholars and cultural memory institutions contributing their expertise and support to the project. CENDARI was recently ranked first in the EU in the integrating activities in the Humanities and Social Sciences Infrastructures area, the only Humanities FP7 project to receive such an award.

CULTURA is pioneering the development of next generation adaptive systems which will provide new forms of multi-dimensional adaptivity in the delivery of cultural content: personalised information retrieval and presentation which respond to models of user and contextual intent; community-aware adaptivity which responds to wider community activity, interest, contribution and experience; content-aware adaptivity which responds to the entities and relationships automatically identified within the artefacts and across collections; personalised dynamic storylines which are generated across individual as well as entire collections of artefacts.

DigCurV is funded by the European Commission's Leonardo da Vinci programme to establish a curriculum framework for vocational training in digital curation. DigCurV brings together a network of partners, including the Italian Digital Renaissance Foundation, the University of Vilnius and the University of Glasgow, to address the availability of vocational training for digital curators in the library, archive, museum and cultural heritage sectors needed to develop new skills that are essential for the long-term management of digital collections.

Through the IRCHSS, Trinity has a Co-PI in the ESF Network NeDiMAH who is also the Irish representative. This programme will create a 'methodological commons' for the practice of digital humanities in Europe, and is bringing together practitioners in a series of thematic working groups, which examine the use of formally computationally-based methods for the capture, investigation, analysis, study, modeling, presentation, dissemination, publication and evaluation of arts and humanities materials for research.

### 5.1 Visual Arts

The History of Art Department at Trinity takes full advantage of Dublin city's resources for the study of art, both Western and non-Western. At the same time the Trinity Irish Art Research Centre exploits the advantage of such a location for the study of the most significant examples of Irish art and architecture, from major medieval manuscripts to contemporary art and architecture. The staff of Art History and TRIARC have a dynamic history of collaborative relationships with the various art institutions and organisations in Dublin and beyond. These include researching

## Appendix 9

---

and curating innovative exhibitions, creative writing of interpretative texts and curatorial catalogues, and critical analysis of visual material. Art History cannot function without the creativity of artists, and it is taught interactively in Trinity. Students not only visit galleries to engage directly with the art object, at Masters level they also have lectures and studio visits with artists, and practising artists avail of the courses on offer.

A strategic plan of action is currently introducing new levels of collaborative engagement, practice, training and research in the visual arts across the university and with cultural institutions. Recently a module on key aspects of curatorial practice – creative, practical, and theoretical – involving interaction with a range of art institutions at state, regional, and local level has been developed. The module is available to students on the MPhils in Irish Art History, Public History and Cultural Heritage and Digital Humanities and Culture courses. This represents a pilot with a view to, resources permitting, developing this module into a unique full Masters programme on curatorial practice in the visual arts. This would be the first such course in Ireland.

Other initiatives in this area include new investigations into the Book of Kells supported by an Innovation Bursary and partnerships with international IT companies. In addition, a funded project entitled Art-space, Technology and Critical Thinking is teaching Masters students how to create immersive 3-D panoramas as a means of designing and recording art exhibitions and displays, architectural interiors, and visual objects.

### 6. Creative Technologies

Trinity has an international reputation for research, education and knowledge transfer activities in the technologies that underpin the Creative and Entertainment Industries, such as Film, Video Games, Visualisation and Design, Digital Arts and Networks and Telecommunications. Such collaboration between engineers, scientists and artists is an important strategy in the leading research centres around the world. The four core areas are:

1. Visual Computing: carrying out leading edge research and education in computer graphics, computer vision and all aspects of visual computing. Spinouts formed by members of the group include Havok, Kore, Haptica and SureWash.
2. Digital Media Processing: active in the field of Digital Signal Processing (DSP) as it applies to media application, such as automated digital film restoration, motion estimation, video processing and audio-visual algorithms. This grouping has many active industry links and successful spin-outs, including Greenparrotpictures and Recitell.
3. Digital Arts: exploring the emergent fields of creative art practice, new technologies and telecommunication systems to re-imagine film and video, music and sound production, and theatre, dance, live art and installation in a digital environment. The multimedia and Internet company X Communications has its foundation in this grouping.



## Appendix 9

4. **Intelligence Content:** The conscious creation of content that is not limited to one purpose, technology or output. **It** is content that is reusable, discoverable, and reconfigurable. Once publicly available intelligent content evolves rapidly reacting to the behaviour and contribution of users. Intelligent content is typically structurally rich and structurally aware.

Table 5. Research activity at Trinity in the Creative Technologies

Major Research Themes	Research Groups/Centres	Collaborations	Related Programmes
Audio, Graphics, Vision, Animation, Visualisation, Narrative- based Installations, Acoustics, Music, Game Design, Interactive Design, Digital Film Production, Digital Art; Creative applications from telecommunications & networks	<p>Graphics, Vision &amp; Visualisation Group (GV2) (Computer Science Perception and Graphics; Real-Time Rendering and Animation; Crowd Simulation; Image/Video and Audio Processing &amp; Analysis; Custom and multi-core hardware architecture</p> <p>EU FP7 ICT funded VERVE project</p> <p>SigmaMedia: Signal Processing for Media (Electrical Engineering) Addressing automated digital film restoration; motion estimation; MCMC for video processing</p> <p>The Audio, Acoustics and Music Research Group (Electrical Engineering and Drama, Film and Music) – creative arts with strong psychoacoustical foundations</p> <p>Creative Applications of Telecommunications and Networks Group ( CTVR SFI CSET) Art and technology, intelligent materials, smart clothing.</p> <p>Science Gallery – EU FP7 SIS Studio Lab – creation of a new European platform for creative interactions between art and science. STUDIOLAB brings together major players in scientific research with centres of excellence in the arts and experimental design and leverages the existence of a new network of hybrid spaces...</p>	<p>Ballyfermot College of Further Education, UCD, DIT's GradCAM and Digital Media Centre</p> <p>Several European partners including Universidad de Zaragoza, Spain; Centre Nationale de la Recherche Scientifique, France; Kainos Software, UK; Testaluna SRL, Italy; Chu de Nic.</p> <p>Microsoft, Demonware, Disney Research, the Foundry, Google, Adobe, HMM, IBM, Intel, Cinema postproduction archives around Europe including INA and the BBC, RTE, Sony, Toshiba, Bell Labs, Alcatel Lucent, NEC, Brown Bag Films, Giant Creative</p> <p>Spin out companies from research groups such as Havok, Kore, Haptica and SureWash</p> <p>Bloomfield Science Museum, Jerusalem; Le Laboratoire, Paris; Arts Electronic+C56a GMBH; the Royal College of Art and several other institutions across Europe</p>	<p>MSc: Interactive Entertainment Technology; Interactive Digital Media</p> <p>MPhil: Music &amp; Media Technologies</p> <p>Structured PhD Digital Arts and Humanities (arts strand)</p>

Under the Creative Arts Technologies and Culture Initiative, a Centre for Creative Technologies was established to harness the University's critical mass in the technologies and science that underpin the Creative and Entertainment Industries, and in partnership with these industries, pioneering new research and graduate programs relating to creative technologies and new media. **It** is based on a unique collaboration of Computer Science, Engineering, Drama and the Arts and includes all those involved

## Appendix 9

---

in Creative Technologies research at Trinity and partner institutions, including the Trinity College Institute of Neuroscience, the Long Room Hub Research Institute for the Arts and Humanities, the Science Gallery, the GradCAM graduate school of creative arts and media at DIT, and others.

The Centre is providing a framework to expand on the success of leading Masters programmes in Interactive Digital Media, Interactive Entertainment Technology, and Music and Media Technologies, and it is intended to introduce more interdisciplinary educational offerings in Creative Technologies at Diploma, Masters and PhD level. New options at undergraduate level are also being considered. The MSc in Interactive Entertainment Technology is unique in the level of interest and support it has from industry players like Microsoft, Intel and Demonware among others. It is funded by the National Development Plan (NDP) and being taught by people who are conducting state-of-the-art research in their respective fields in the technology industry. Overall the Centre is growing its direct engagement with the creative and enabling industries, building on existing links with Disney Research, Intel, The Foundry, Google, Adobe, Sony, Toshiba, IBM, Microsoft, Bell Labs, Alcatel Lucent, NEC and many more.

Recent developments also include the establishment of a partnership with Ballyfermot College of Further Education in 2011. The Animation Hub was founded in the summer of 2011, after the signing of a Memorandum of Understanding. It involves students and staff from both institutions, under the direction of recent BCFE graduates from the start-up Giant Creative (spin-out company), and resulted in the development of a short animated film: the Last Train. The film received over 100,000 hits online within days of being posted, and was nominated for an IFTA, selected for the Annecy festival, and won a Digital Media Award. Future joint projects are being actively pursued.

The animation and related industries (eg. Games, Visual Effects) have gone through huge changes in Ireland in the last few years and are growth areas in an otherwise depressed economy, as outlined in recent Forfas and Audiovisual reports. There is therefore considerable potential to grow the animation sector in the future. Plans are underway to develop this partnership with BCFE further, thereby facilitating a meeting of art, innovation and technology in the field of animation, bringing current disparate research and development under one roof and providing students with the knowledge and skills to secure jobs now and in the future.

Creative Technologies are also facilitating collaborations with other disciplines, such as neuroscience and health. VERVE is a European FP7 project aimed at improving the quality of life for disadvantaged groups including older people and those with neurological disorders. It has been awarded €4.8 million. The international project is being coordinated by Trinity and includes collaborative partners in healthcare, serious games and academia in France, UK, Italy, Spain and Germany. VERVE aims to create personalized and populated realistic virtual environments for clinical, home and mobile platforms [verveconsortium.eu]. These tools are in the form of personalised VR scenarios and serious games specifically designed for therapeutic targets.

## Appendix 9

---

Significant developments within the past ten years in computer graphics and artificial intelligence have led to increasing human-machine interaction and increasing social realism in games (eg. Nintendo's Wii, Microsoft Natal), entertainment (eg. 'Avatar' and Second Life) and personal robots (eg. Honda's 'ASIMO' or Sony's 'AIBO'). Moreover, social interaction has been shown to optimise didactic interfaces for the purpose of education, health-care, skill acquisition in sport and others. These industries, however, currently lack insight from human social neuroscience into factors that underlie the appeal of certain social characteristics over others and the identification of social cues that sustain attention. Such insights are crucial to the success of designing socially realistic virtual agents. The SFI-funded PI grants Metropolis and Captavatar, both collaborations between Computer Scientists and Neuroscientists, are addressing this challenge. Collaborators include Disney Research, Intel, Havok, IBM, NaturalMotion and others.

The "Inside Joycean Dublin" digital resource is another joint project involving: TCD, RTE, UCD, the National Library of Ireland, the National Digital Repository, the Dublin James Joyce Centre, and Enterprise partners. A digital resource is being developed that will reflect both the factual and historical Dublin of Joyce around 1904 – the year in which Ulysses was set and when Dubliners was written.

Explorations are currently underway with Dublin Institute of Technology's GradCAM graduate school to leverage the strong complementarity in the two institutions in the area of media technologies. The establishment of a joint Creative Technologies Hub with DIT will bring together expertise across the visual, performing and media arts with the sciences, engineering and business. Students and researchers will work in multi-disciplinary teams networked with cultural organisations, telecommunications and ICT companies, and the entertainment sector to develop new fields of inquiry and applications for education, culture, entertainment, tourism and daily life through co-ordinated action. The aim is to mobilize and harness knowledge, talent and investment in order to capitalise on Dublin's creative resources and position it as a global centre of digital media and software development in order to advance Dublin as an attractive international hub for creative technologies.

The School of Drama, Film and Music hosts the Digital Arts strand of the PRTL-funded structured PhD in Digital Arts & Humanities in its state-of-the-art Arts Technology Research Laboratory. Ph.D research there presently includes work on Transposable Tools for integrated Media Performance, Curating New Media Art, and Responsive Environments in Performance. The ATRL has a formal connection with the Centre for Creative Practices and has collaborated with the Darklight Film Festival (both Dublin-based). In order to maximise synergies it is proposed that TCD's DAH and ARTL programmes join forces with DIT's GradCAM. Since there is already much tangible cross-fertilization between the programmes in the two institutions, and since ATRL is restricted in expansion by staffing constraints, and DIT by lack of plant and facilities, a TCD-DIT alliance in Digital Arts would seek to become a research institute of considerable national and global impact.

## Appendix 9

---

### Proposed Masters in Creative & Cultural Entrepreneurship

For 2013 Trinity is planning the introduction of a new taught Masters in creative and cultural entrepreneurship, which will be the first such course in Ireland. A number of Schools in Trinity are contributing to the design and delivery of this cross-disciplinary course including Drama, Film and Music, Computer Science and Statistics, Histories and Humanities, Social Sciences and Philosophy, Languages, Literatures and Cultural Studies. Partner institutions will also be involved including the John F Kennedy Centre for the Performing Arts/DeVos Institute for Arts Management in Washington and Goldsmiths College in the UK as well as creative industries and cultural institutions in the Dublin region.

The overall approach to designing this course is to integrate entrepreneurship within the development of different creative practices in order to develop new business ideas within the creative sector and to establish the infrastructure required to support new creative enterprises.

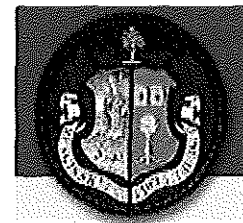
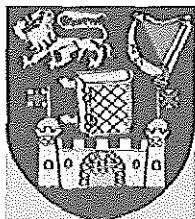
### 7. Conclusion

Through its pioneering Creative Arts, Technology and Culture Strategy Trinity College over the last few years has developed a strong and innovative network of relationships and synergies with partner institutions in the field of education, culture, business and technology across the city. In the continued advance of this strategy, it is deeply committed to maximizing the potential of the richness of its research landscape and its educational provisions, its city-centre location and its wealth of institutional relationships. We are looking forward to enhancing and refining this strategy of collaboration in the years to come with the active cooperation of existing and new partners for the benefit of a new brand of creative practitioner graduates, for Dublin as a city of innovation and culture and for Ireland as a dynamic and innovative society.



# Appendix 10

Memorandum of Understanding in relation  
to a Strategic Partnership between TCD  
and Carlow College



**Memorandum of Understanding  
in relation to a Strategic Partnership  
between  
The University of Dublin, Trinity College  
and  
Carlow College**

1. Trinity College Dublin (TCD) and Carlow College, as the two oldest institutions of higher education in Ireland, affirm that they share a number of areas of common interest, particularly in teaching and research in the Humanities and Social Sciences.
2. The two institutions, despite differences in scale and in breadth of mission, recognize the potential for exploiting their strong synergies, particularly in the South-Leinster region: TCD as a research-led metropolitan university, Carlow College as a regional hub engaged in the delivery of flexible programmes in the Humanities and applied Social Sciences.
3. On the basis of this recognition, TCD and Carlow are committed to develop a programme for future cooperation, the implementation of which both parties will be championing with their respective stakeholders.



Appendix 10

---

4. The two institutions see as a consequence of such collaboration the exploration of more formal relations in the future.
5. It is recognized that any such fuller connection or affiliation would respect the autonomy and distinctive ethos of each institution.
6. This bi-lateral agreement is non-exclusive, and we recognize the right of each party to pursue complementary agreements with other parties.

Signed this day, 05 November 2007, on behalf of the Provost, Fellows and Scholars of Trinity College Dublin and on behalf of the President and Trustees of St Patrick's College Carlow

Signed: John Hegarty

*Dr John Hegarty  
Provost*

Signed: Caoimhín Ó Néill

*Fr Caoimhín Ó Néill  
President*

Date: 5 Nov 2007

Date: 5 Nov. 2007