

Institutional Response to Higher Education Landscape Document 2012

University College Dublin

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1. INSTITUTIONAL MISSION

UCD continues to be a top quality University benchmarked against the highest international standards, Irish in its ideals and ethos but global in its outlook. Few, if any educational institutions worldwide can claim to have had as great a role in the building of a nation as UCD has had. So many of Ireland's leaders in politics, public service, the arts, sport, business and the professions have spent their formative years at UCD.

UCD continues to play a critical role in Ireland's social and cultural development and as an important curator of our national heritage. Self evidently, addressing our current economic challenges is of paramount importance; however, the resolution of these issues must go hand-in-glove with the equally important task of preserving our cultural identity in a manner which celebrates and recognises the increasingly diverse Irish experience and contributes to the building of a renewed social dynamic which offers equality of opportunity, esteem and inclusion.

UCD is strongly of the view that this leadership position in Ireland and UCD's global contribution must be maintained and enhanced over the coming years. UCD will continue to be a persuasive advocate for the enduring value of investment in Irish higher education. Solutions to Ireland's current economic and social crises will be developed by our finest and most sophisticated minds, the cultivation of which is the very stock-in-trade of UCD and our colleagues in the other Irish universities.

Ireland can and should lead the way in developing a higher education system which produces the graduates to create, adapt and thrive in a global society and economy. The development of world-leading universities is central to achieving this objective. Investing in universities which have the capacity and proven track-record to deliver the type of graduate, research programmes and business and policy creativity that can be successful in today's challenging and competitive global environment is fundamental to Ireland's social and economic regeneration. Ireland's continued living standards and social cohesion depend upon a smooth and rapid transition to an innovation and knowledge-driven society. UCD, together with our colleagues at Trinity College Dublin, in particular, see our institutions as being in a pivotal position with regard to effecting this transition.

Both UCD and our colleagues at TCD are ranked in the top 1% of higher educational institutions worldwide. We believe that the time has come to develop even closer linkages than currently exist. We believe that the nature, quality and global reach of our activities provide opportunities for collaboration and co-operation that will, with appropriate government support, move both universities in a short period of time into the highest echelon of the world's universities distinguished by world-class research and educational programmes.

But UCD's ambition stretches beyond these shores. UCD students, staff and graduates have made and continue to make an impact across the globe. In every society worldwide, there are numerous examples of the leadership qualities of UCD people and the excellent contribution they make to their adopted countries, while remaining fundamentally Irish in their outlook and promoting a positive view of Ireland internationally.

Thus, internationalisation has been highlighted as one of UCD's institutional priorities in our Strategic Plan to 2014, 'Forming Global Minds'. The University currently hosts over 5,000 international students on its Dublin campus and delivers degree programmes in, for example, business, computer science and medicine to over 4,000 students at overseas locations through

local partnerships in countries including China, Malaysia, Sri Lanka, Spain, Singapore and Hong Kong. Over the coming period, the University plans for significant growth in its overseas efforts, with particular emphasis on locations that offer us the opportunity to build mutually beneficial partnerships of scale especially in areas such as business, science, engineering, health and public administration. Similarly, UCD views its membership (and current chairmanship) of the Universitas 21 Network of global research universities as being critical to the expansion of UCD's student mobility opportunities and the development of other key aspects of UCD's internationalisation strategy.

In the process of achieving its objectives, UCD will be:

- A leading international research-intensive university where excellence in education goes hand-in-glove with a commitment to research, scholarship, creativity, and innovation;
- A university where innovation sits alongside education and research as a fundamental element of all we do;
- A university committed to increasing levels of collaboration and partnership with Irish and international peers, Government and industry;
- A university that shapes local and global agendas, supporting where appropriate and challenging where warranted;
- A university that is distinctly Irish, diverse, socially inclusive and recognised as world-class;
- A university that continues to play a central role in the shaping of modern Ireland, engages the global Irish community and offers an educational gateway to Europe for increasing numbers of international students;
- A university where the holistic development of the individual is central to our academic, social, cultural and professional lives;
- A university where excellence is the benchmark for everything that we do.

2. CONSOLIDATION AND SYNERGIES ALREADY ACHIEVED

The national strategy establishes the concept of the regional cluster as "*a mechanism for of achieving a more coherent, higher quality and more efficient higher education system.....will allow programmes of teaching and learning to be better planned and co-ordinated, resources to be used more efficiently, more flexible student pathways and better progression opportunities to be put in place, and better and more coordinated services to enterprise and society to be provided at a regional level.*" UCD has already made significant progress to implement this agenda through a range of collaborations.

UCD has established strategic partnerships with the Institute of Bankers, National College of Art and Design, and the Institute of Public Administration and through formal recognition of these institutions as Recognised Colleges of UCD. This is not simply a mechanism for accrediting programmes but establishes a relationship of mutual benefit that will encourage the development of shared programmes, use of shared resources and enhances and deepens the student experience within the partner institutions.

In addition to these formally recognised colleges, UCD has developed a number of very significant strategic collaborations in research and innovation with TCD and QUB, in postgraduate education, through the DRHEA and in addressing national priority areas for economic development with state bodies such as Teagasc and the IDA. UCD has begun discussions on the potential synergies and benefits of a relationship with IADT, particularly in the context of the existing and growing relationship with NCAD.

National College of Art and Design

In 2010, NCAD became a recognised College of UCD, driven by a desire to '*remove barriers and transcend boundaries*' in expanding the intellectual community of each institution and to harness the complementarities and diversities which bring the visual arts and a wide range of academic disciplines into closer proximity

This alliance is about mutual support in institutional development, student mobility, joint research and scholarship, IT and library collaboration, joint programmes at all levels, joint internationalisation and student recruitment initiatives and, vitally, in terms of social capital, joint outreach and creative approaches to engaging the local community in higher education as well as joint engagement with cultural institutions.

The Institute of Public Administration

The Institute of Public Administration (IPA) became a Recognised College of UCD in autumn 2011. The IPA has been providing education and training to the Irish public sector for over 50 years, and since its establishment in 1957 has also been delivering programmes internationally, mainly to support capacity building in government in Africa, the Middle East, and Central and Eastern Europe. UCD and the IPA now jointly deliver the Doctorate in Government Programme, and the IPA is also a partner in the Masters in Public Policy being launched by UCD from September 2012.

The Institute of Bankers

The Institute of Bankers (IoB) has a long-standing collaborative relationship with the UCD School of Business extending back over 15 years. In 2006, the Institute of Bankers and University College Dublin entered into a long-term strategic alliance to enhance and develop education and research in banking and financial services.

A comprehensive portfolio of financial services part-time programmes ranging from Professional Certificate to Masters is offered. This has contributed substantially to the development of financial expertise in Ireland, particularly in the context of the IFSC. Faculty of the UCD School of Business support the IoB in teaching and research.

The UCD-TCD Innovation Alliance

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, (see below)
- 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,
- Joint Certificate / Diploma in Innovation & Entrepreneurship.

TCD and UCD combined account for:

- Approximately 50% of Ireland's undergraduates in science, engineering and technology;
- More than 50% of Ireland's total PhD students;
- Approximately 50% of Ireland's total competitive research funding;
- Almost 50% of total international researcher recruitment through Science Foundation Ireland's Stokes Programme;
- A strong track record of collaboration in science and engineering that includes flagship partnerships in engineering, chemistry and biopharmaceutical science, biomedical science, neuroscience and digital research, among other areas;
- The highest international rankings of Irish universities;

- The highest rates of publications in leading journals and citations per publication (2004-2012) from Irish universities.

In particular, since March 2009, UCD and TCD have embarked on a radical partnership between the education sector, the State and its agencies and the business and venture capital communities with the objective of contributing to Ireland's development as an innovation hub. The UCD-TCD Innovation Alliance is comprised of three major strands:

- A *Joint Venture in Business Development* that will see UCD and TCD bring together their technology transfer and enterprise development activities with ambitious targets for the formation of spin-out companies, the support of spin-in companies and Irish SMEs, and the development of substantive and sustainable partnerships with foreign multinational companies;
- The development of the TCD-UCD 4th Level *Innovation Academy* whose aim the formation of a new, globally-conscious generation of innovative, creative and entrepreneurial graduates who will play the same leadership role for Ireland on the international stage that 20th century graduates did within Ireland in the past;
- A partnership with Government and its agencies, the business and venture capital community, and other stakeholders with the goal of developing the policies and supports necessary to establish Ireland as a thriving innovation ecosystem.

Both institutions are committed to developing and extending this alliance as part of their collaborative contribution to economic and social development in Ireland, particularly in fourth level.

Appendix 1 sets out further details of the Alliance.

Molecular Medicine Ireland

Molecular Medicine Ireland was established by UCD, TCD, NUIG, RCSI and their associated academic hospitals as a research partnership to accelerate the translation of biomedical research into improved diagnostics and therapies for patients.

MMI was formed in response to the need to create a critical mass of excellence in translational medicine research and education in Ireland and to deploy a clinical research infrastructure to facilitate state-of-the-art clinical trials and investigator-led clinical investigation.

MMI delivers on the goals of the Government's Strategy for Science, Technology and Innovation by creating greater coherence in medical research strategies, exploiting synergies in clinical and translational research in the member institutions and their associated hospitals and in training and retaining researchers of the highest quality. In particular, MMI contributes to the doubling of the number of PhDs qualified in Ireland, while ensuring the best possible research training experience.

Dublin Region Higher Education Alliance (DRHEA)

UCD has been a lead partner in The Dublin Region Higher Education Alliance. The DRHEA membership includes four universities and four institutes of technology and represents a prototype for regional clusters.

The DRHEA has, over the last 4 years, made important advances in facilitating and advocating for better collaboration across a range of programmatic activities. The DRHEA has demonstrated that collectively, a diverse range of higher education institutions can work in partnership to the mutual benefit of the institutions and the students they serve and, through collaboration, add value to their individual activities and UCD supports the view that the alliance has a role in the development of education and research within the Dublin Region.

UCD led the Graduate Education Strand of the DRHEA which enabled efficiencies to be gained by sharing modules, running joint master classes, developing shared e-resources and hosting joint conferences. Feedback from students has been positive and academic staff members have been enthusiastic about the DRHEA. The management structure and inter-institutional sharing of modules can now be built upon for additional and mutually beneficial activity.

The Dublin City region has been Ireland's most dynamic economic zone and a principal source of the innovation which has underpinned the country's development of a knowledge-intensive economy in recent times. The diverse higher education sector in the city region has been a core element of the infrastructure that has supported the emergence of the fastest growing region in Europe, measured along axes such as population, number of students, and economic output.

The DRHEA has identified key strands of activity where collaborative action has and will continue to lead to efficiencies and increased capacity for development, including: enhancement of learning, graduate education and widening participation.

The UCD Teagasc Partnership

University College Dublin and Teagasc signed an agreement in 2011 to further enhance their collaborate activities in research and training. The result is the 'The National Agricultural Research, Education and Innovation Programme.

At the core of the partnership is a programme of agricultural research where Teagasc and UCD will now operate a shared strategy for post-graduate training, including a provision for greater involvement by Teagasc personnel in undergraduate and post-graduate teaching, while also enabling more substantial engagement by UCD personnel in Teagasc research programmes and technology transfer activities. The partnership will enhance the scientific and technical leadership of University College Dublin and Teagasc to support the international competitiveness, growth and sustainable development of the agricultural sector. It will also ensure world-class education for agricultural students and deliver excellent basic and applied research programmes in key areas of relevance to the development of Irish agriculture.

It is anticipated that this partnership will bring new and additional resources to both organisations that will enhance the flow of new information and technologies to the Irish agriculture and food sector.

Penang Medical College, Malaysia (PMC)

PMC is jointly owned by UCD and RCSI. PMC students undertake their Pre-Clinical studies in Dublin at either RCSI or UCD where they gain a comprehensive understanding of the biomedical sciences necessary to enter clinical training. Upon successful completion of their pre-clinical studies, students return to Penang to pursue their clinical training. During their

period of clinical training in Penang, the students remain registered as full-time students of either RCSI or UCD.

Upon graduation, students are conferred with the MB BCh BAO degrees of the National University of Ireland (NUI) as well as the Licentiate of the Royal College of Surgeons in Ireland and the Royal College of Physicians of Ireland.

Administrative Consolidation/Rationalisation

The Irish Universities Association has for a number of years had administrative subgroups sharing information, approaches to problems and issues in addition to collaborating on projects designed to maximise the efficiency of resources across the sector. Successful projects have been delivered in areas such as Registry, Finance, Procurement, Human Resources and Information Technology. Examples include:

- **HEAnet:** this entity has been used to centralise both the computing power and data storage for the sector and has also been effective in managing other IT spend;
- **Procurement:** Procurement strategies have been put in place for all major spend areas and has overseen many successful collaborative tenders in large spend areas such as energy, laboratory consumables and stationery. A significant aspect of this work is the establishment of expert groups on each tender which has led to a sharing of information and best practice on the management of particular spend categories.
- **Shared Services:** The sector has developed an approach to Shared Services which is now moving into a critical phase following the development of a shared service strategy. A pilot feasibility study of applying shared services to a number of business processes in Finance and HR is being conducted. The current phase is the commissioning of a more comprehensive study to investigate the feasibility and benefits of operating shared services across a wide range of Administrative processes.

3. DEVELOPING THE UCD MISSION

3.1. TEACHING AND LEARNING

In its Strategic Plan to 2014 ‘Forming Global Minds’, UCD has placed significant emphasis on developing world-class standards of education for its students by enhancing teaching standards, creating innovative curricular structures and rewarding excellence in teaching and educational leadership. UCD’s graduates will be:

- Academically excellent;
- Intellectually flexible and culturally literate;
- Globally engaged.

In recent years, a number of specific approaches in teaching, learning and curriculum design have been introduced to ensure that students prepared for an environment which is international and culturally diverse, preparing students for work and life in many different cultures and environments. These include:

- UCD Horizons, an educational structure which, since 2005, has allowed all undergraduate students to take 15% of their modules from outside of their ‘home’ programme, thereby increasing the breadth of their knowledge, to begin or continue to study additional areas to improve their graduate profile (i.e. linguistic/business capabilities) and to develop/increase capabilities which complement their field of study. The flexibility of the UCD Horizons structure is a critical element in providing the programme flexibility to deliver on widening participation, developing collaborative programmes with third-level partners, developing graduate entry programmes and developing online educational offerings.
- A commitment to design-led teaching approaches to help students transfer to effective third-level learning, to acquire successful self-managed approaches to study and to develop sought-after graduate capabilities. These goals have been achieved by an emphasis on staff training in the most effective teaching approaches, underpinned by strong institutional and pedagogic research.
- A focus on reflection and enhancement of teaching and learning approaches as instanced by the implementation of an all-university, anonymous, on-line student feedback system which will enter its fourth year in September 2012. UCD is the first Irish university to implement feedback system of this scope
- A recognition that the current CAO system limits access to high demand courses by individuals with strong vocational ambitions coupled with more developed life experience has resulted in the introduction of graduate entry pathways to medicine and veterinary science. This approach will be considered for other professional programmes.

UCD as a Leader in Graduate Education

UCD has emerged as a leader in graduate education with the creation of dedicated graduate schools and now accounts for approximately 25% of all full-time PhD students in Ireland. Building on its extensive research programmes, UCD has significantly enhanced doctoral education with the introduction of the *UCD Structured PhD* which enriches the doctoral student experience, and provides an appropriate platform for the expansion of doctoral

education in thematic areas. Allied to this UCD has grown its numbers of masters students and numbers of programmes substantially.

The heavy strategic investment in educational infrastructure informed by growing expertise in 4th level education and research positions has enabled UCD to provide a quality of education which is comparable to the highest international benchmarks and is a critical enabler of strategic collaboration and the development of a profitable international footprint.

3.2. RESEARCH

UCD has progressed substantially towards becoming one of Europe's leading research intensive universities, with approximately 4,000 publications per year and the highest volume of papers in journals referenced by the Web of Science in Ireland since 2008. The total value of new awards in 2010/11 had more than doubled compared with 2009/10 (€103m vs. €49m), with €24m awarded under PRTL 5. In the same year, UCD won 20% of the total national funding provided by SFI. Funding from the European Union more than doubled from 2009/10 to 2010/11, and now stands at €23m. The dependency on the state has reduced, with 45% of new awards derived from non-state sources in 2011.

The development of knowledge through research and scholarship is central to the purpose and mission of UCD and lies at the heart of its community of academics and students. The ethos of enquiry and problem solving that underpins UCD's research approach critically informs the educational and learning programmes of the University. Strong research programmes driven by academics who are global leaders in their field underpins UCD as the national leader in post-graduate education and post-doctoral training.

Research is also central to the positioning of UCD as a global university and has enabled the University to participate in the flagship programmes of Europe, particularly in education, history, ICT, Food and Health. Research is also a major driver of the University's programmes in China, Singapore and Malaysia.

A focus on Science Engineering and Technology

UCD has developed its research programmes in science and engineering, with a particular focus on national research priorities and the disciplines that underpin them. This effort is highlighted by a major development of UCD's 'Science District' through the construction of the €250m Science Centre and Health Sciences. The Science District supports the fundamental disciplines that are critical to the educational and research programmes in the sciences, including biology, chemistry, mathematics and physics. In turn, the Science Centre and School of Engineering support five key research areas: agrifood, data analytics, the targeted medicines initiative and environment and energy.

A focus on Humanities and Social Science

UCD is home to the largest concentration of Humanities and Social Science scholars in Ireland and research-led teaching is the norm across the disciplines. The presence of so many HSS scholars alongside the Geary Institute, the Humanities Institute of Ireland and a series of cognate centres and institutes such as the Clinton Institute, Wellcome Centre for the History of Medicine, James Joyce Research Centre, Institute for British Irish Studies and the Mícheál Ó Cléirigh Institute, creates an international hub for interdisciplinary research.

UCD has established several major cultural collections and national data resources through UCD Archives, the National Folklore Collection and the Irish Social Sciences Data Archive. This material provides a rich seam of information not solely for the research and publications produced by HSS scholars based at UCD but also for the global academic community. This successful and organic blend of local resource, interdisciplinary focus and global reach are why UCD has chosen Global Ireland as its theme for HSS disciplines.

Major Research Themes

UCD focuses on 4 research themes: Health and Healthcare Delivery; Information, Communication and Computation; Global Ireland; and Earth Sciences. Key areas within these themes align to national priorities and emerging themes of the EU Horizons 20/20: AgriFood, Culture and Identity, Earth Sciences, Energy, Financial Mathematics, Future ICT, Governance and Regulation, Molecular Innovation & Drug Discovery, Connected Health and the Future of Medicine.

The University has established research institutes and centres to promote interdisciplinary research and keeps their performance and relevance under review. These include:

- UCD Conway Institute;
- UCD Geary Institute;
- UCD Complex & Adaptive Systems Laboratory;
- UCD Institute of Food & Health;
- UCD Humanities Institute of Ireland;
- Centre for Synthesis and Chemical Biology;
- UCD Earth Institute;
- Urban Institute of Ireland.

In addition, UCD has established two SFI-funded Centres for Science Engineering and Technology and seven SFI-funded Strategic Research Clusters. UCD also hosts the National Institute for Bioprocessing Research and Training on its campus and is a co-founder of the National Digital Research centre.

3.3. INNOVATION

UCD is fully committed to its key role in Ireland's innovation and knowledge exchange ecosystem as an enabler of economic growth and a contributor to economic and social development through innovative and entrepreneurial graduates, the development of industry partnerships, the commercialisation of research outputs, the generation of new ventures and the creation of jobs.

Consistent with Government policy as expressed in the '*Strategy for Science, Technology and Innovation*', '*Innovation Ireland*' and the '*Action Plan for Jobs*', UCD supports the derivation of economic and social return from state investment in teaching and learning, research and innovation. As reflected in UCD's Strategic Plan to 2014, *Forming Global Minds*, innovation is now the 'third pillar' of the University's core mission of service to Ireland in the wider world.

Innovation – The Third Pillar

A key basis for Ireland’s economic boom was the availability of a pool of highly-skilled people. The Irish universities had a major role to play in this regard and consequently, the decisions and investments made by universities in the present will have significant implications for economic performance in the future.

Economic evidence suggests that a country’s ability to absorb foreign technology is enhanced by investment in education and by investment in its own R&D. The presence of high-quality universities, a strong human capital base, good education and a strong research base are crucial in this regard.

The Irish universities in general and UCD in particular will be key contributors to economic and social recovery and development. The greatest contribution made by universities is their impact on the quality of human capital in the population; the knowledge and skills and people and know-how that advances the productive capacity of the economy.

The core innovation themes at UCD are to:

- **Inspire creative graduates** through our education programmes at undergraduate and graduate levels so that they are not only expert in their discipline but also possess the skills, networks and confidence to translate their research into a commercial, social, cultural or policy innovation. The Innovation Academy will play a flagship role in this regard.
- **Put knowledge to work** working with industry, the public sector and voluntary organisations, to conduct problem-driven research focussed often on multi-disciplinary solutions;
- **Partner with industry** UCD currently has over 300 industry partnerships in research and has recently acquired an additional 5,000 square metre building to house companies who wish to collaborate on R&D activities with UCD so that they can locate their company, or a company unit, in close proximity to UCD’s research community;
- **To grow and support businesses** researchers are assisted with creating and protecting IP and that IP can be licensed out to companies or may result in the formation of a spin-out company.

The key outputs from UCD’s emphasis on innovation will be:

- More innovative graduates;
- Strong alliances to enhance our role in knowledge transfer;
- A greater level and variety of business engagement;
- Higher quality research outputs;
- To support more quality start-ups;
- To demonstrate our relevance to government and the national agenda;
- To support job creation.

Nova UCD

The enterprise, commercialisation and entrepreneurship infrastructure in UCD is comprehensive and broad and is centred in NovaUCD. The infrastructure in NovaUCD to support enterprise, commercialisation and entrepreneurship also involves a comprehensive set of training, workshop and seminar programmes. The lead programme is the Campus Company Development Programme (the CCDP), a nine-month, part-time enterprise support initiative designed to suit the timetable of busy researchers and academics which assists in the establishment and development of knowledge-intensive enterprises to commercialise the output of their research and innovative ideas.

Notable impacts include:

- The companies based in NovaUCD have raised over €40m in equity investment to date;
- UCD's most successful licence to date, a diagnostic test for BSE, passed the milestone of €2 million in royalty income;
- ChangingWorlds and BiancaMed, founded based around IP from UCD, had a combined realised value was in excess of €70M:
 - ChangingWorlds was sold to Amdocs, an Israeli company listed on the NYSE;
 - BiancaMed, was sold to ResMed Inc., a US company listed on the NYSE.

4. DEVELOPING PARTNERSHIPS OF SCALE

In the coming period UCD, will emphasise the further development of substantial partnerships both at home and abroad as a key enabler of growth, academic development and financial stability. This section sets out highlights of these developments but is not intended to be comprehensive.

4.1. NATIONAL AND CROSS-BORDER

Developing Recognised Colleges

UCD will:

- Develop relationships and alliances with appropriate institutional partners through the application of the Recognised Colleges framework where such alliances are mutually beneficial to the Institutions and the broader higher education landscape. For example, the on-going discussions with IADT and the potential for synergies between UCD and IADT and NCAD. Furthermore, a synopsis of UCD's response to the provision of higher education in the creative arts and media in the Dublin region is set out in Appendix 2.
- Place significant emphasis on strengthening the UCD-NCAD relationship with a view to: incorporating NCAD modules into the UCD Horizons undergraduate curriculum; developing joint masters programmes and the incorporation of NCAD modules into UCD overseas programmes.
- Develop the relationship between the Institute of Bankers and UCD with an emphasis on further research and executive education programmes.
- UCD and the Institute of Public Administration will actively develop further opportunities for collaboration in areas such as public management and related programmes and services.
- UCD will work with the recognised colleges to integrate library, student support and back-office operations for mutual benefit and efficiency.

Extending and Enhancing Cooperation between UCD and TCD

As Ireland's two foremost universities, UCD and Trinity College are strongly of the view that the two universities must take a leadership role in this journey of national regeneration. Building on the already substantial collaborations between the two institutions, in particular the TCD-UCD Innovation Alliance (see Appendix 1 for further details), both institutions recognise the need to further develop our existing relationship, build together on our individual and combined strengths and utilise our resources effectively to achieve common goals.

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 the Trinity College 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 Head of each academic unit 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 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 the Trinity College 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 the Innovation Alliance, the DRHEA and the IUA led initiative to examine the potential for shared services across the university sector.

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

Queen’s University Belfast

In 2012, Queen’s University Belfast joined UCD and TCD 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 will ensure 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 will collaborate on the academic management of the programme, delivery of the courses and the on-going development of the *Innovation Academy*. The institutions are developing international links, engaging in outreach events (e.g. ESOF 2012; Falling Walls Competition) and disseminating the work of the *Innovation Academy* at international conferences on innovation and entrepreneurship education.

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

4.2. DEVELOPING THE UCD INTERNATIONAL FOOTPRINT

Internationalisation has been highlighted as one of UCD’s key institutional priorities in our Strategic Plan to 2014 ‘Forming Global Minds’. The University currently hosts over 5,000

international students on its Dublin campus and plans to double this number within the next 5 years. In addition, UCD delivers its degree programmes to over 4,000 students at overseas locations through local partnerships. The University is now planning to focus its overseas efforts on a limited number of locations that offer the opportunity to build mutually beneficial partnerships of scale with a particular emphasis of business, science, engineering, health and public administration.

UCD has significantly broadened its international perspective in recent years and will place particular emphasis on building links with Asia while deepening links with the USA and potentially Brazil. This will involve increasing and further diversifying the cohort of international students and staff at UCD, and extending the range of opportunities available to UCD students to add an international element to their university experience. Specific actions will include:

- The development a range of sustainable and long-term international institutional relationships which provide significantly expanded opportunities for students mobility and exchange;
- Increasing and further diversifying the cohort of international students at UCD by focusing on attracting students to specific programmes, with an emphasis on significantly increasing the number of international students at Masters level;
- Exploiting the advantages of semesterisation and modularisation to create new and flexible opportunities for student exchange and mobility;
- The development of a range of innovative approaches to provide students with an international experience. This may include such innovative initiatives as establishing an International School on campus to serve as a laboratory school for educational innovation and research.

In recent times UCD has developed a number of exciting relationships with overseas partners upon which it intends to build. These include:

Malaysia

Medical Developments: RCSI and UCD have for many years run the Penang Medical College in the NW State of Penang, in Malaysia through the medical schools of RCSI and UCD. 130 students currently spend the first 2.5 years of their medical training in Dublin and return to Penang at the clinical stage to complete their undergraduate education for a further 2.5 years. The new agreement involves establishing a medical college branch campus in Terengganu, on the East coast of Malaysia. Building up to 150 students per annum, the Terengganu State Government has initially allocated 50 places for this coming September to students selected by academic merit and interview. These students will come to Ireland to study at UCD and RCSI for 2.5 years and will return to the new medical school in Terengganu to undertake their clinical training and complete their medical degrees which are awarded by the two Irish colleges. The direct fee value of this new agreement to UCD and RCSI will be €11.6 million per annum and represents considerable income generation for Ireland.

Engineering Developments: UCD and TATI University College have signed an MOU for engineering education. Arising from this MOU, TATI engineering students will be able to undertake some of their undergraduate or graduate studies at UCD. The MOU also aims to facilitate staff exchange programmes as well as collaborative research.

China

Beijing-Dublin International campus: In December 2011, UCD and Beijing University of Technology (BJUT) signed a landmark agreement to establish the Beijing-Dublin International campus which has recently been approved by the Chinese Government. Phase 1 of this development will start in 2012, with dual degree programmes in business, science and engineering. The Beijing-Dublin International campus, located in a physically distinct and co-branded facility within the BJUT campus will offer Irish students increased access to experience in China and advance educational and research links between the two institutions. The first phase will offer programmes in Software Engineering, Accounting and Finance and the ‘Internet of Things Engineering’.

Phase 2 will see the development move to a new purpose-built campus. Activities will expand to encompass dual UCD-BJUT degree programmes delivered in Beijing. This phase will offer opportunities for UCD students to study for a year or semester in Beijing, potential research collaborations, executive education opportunities and facility will provide a resource for Irish companies seeking to do business in China.

It is planned to grow the campus to approximately 5,000 students over a five year period with an expectation that approximately 10% of these will spend at least 1 semester or year in Dublin.

UCD – Shenzhen: UCD has signed an agreement with Shenzhen University (SZU) to jointly establish the Dublin-Shenzhen Institute of Health Science and Innovation. This collaboration between UCD and SZU integrates education, research and innovation programmes in health sciences, bioengineering and health-related technologies, healthcare management and informatics.

The elements of the Institute include a Health Sciences Curriculum Development Unit; a Biomedical Engineering Research and Technology Centre and a Centre for Healthcare Leadership and Innovation. As part of the agreement, the two universities will establish a doctoral programme (MD) for all qualified SZU medical graduates. Following the successful completion of the first year, the students will transfer to Dublin to pursue a further two years of translational research doctoral studies in the UCD School of Medicine.

An application has already been developed and submitted to the Chinese Government for research funding in the areas of cancer and diabetes. The development of a dedicated facility is in train with a likely long-term research focus in the areas of clinical investigation, clinical trials and medical devices. It is hoped that this facility will provide a resource for Irish clinical trials organisations and medical device companies, particularly those wishing to develop business development opportunities in China.

Harnessing the Universitas 21 Network

Universitas 21 is the leading global network of research-intensive universities, working together to foster global citizenship and institutional innovation through research-inspired teaching and learning, student mobility, connecting our students and staff, and wider advocacy for internationalisation.

Collectively, its 24 members enrol over 830,000 students, employ over 145,000 staff and have approaching 2.5 million alumni. Their collective budgets amount to over US\$25bn and they have an annual research grant income of over US\$4bn. The network's purpose is to facilitate collaboration and co-operation between the member universities and to create

opportunities for them on a scale that none of them would be able to achieve operating independently or through traditional bilateral alliances.

All Universitas 21 member institutions are research-led, comprehensive universities providing a strong quality assurance framework to the network's activities. UCD is currently Chair of the U21 Network.

UCD will work with our U21 colleagues to develop opportunities to bring together global communities of learners through both traditional approaches such as Summer Schools etc. and also by harnessing technological developments such as virtual global classrooms.

5. APPENDIX 1 – THE TCD-UCD INNOVATION ALLIANCE

In March 2009, TCD and UCD launched what was seen 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 that are 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;

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 are to:

- 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;

- Collaboratively plan our research and the development of our campuses to maximise our ability to deliver 4th level Ireland;
- Establish innovation and entrepreneurship alongside excellence in research and education as an integral element of the PhD, thereby transforming the doctoral experience;
- Consolidate, extend and scale up the generic and transferable skills provision to underpin professional development throughout students’ doctoral training;
- 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 I Cycle 5 programme within the institutions to focus on the following key activities:

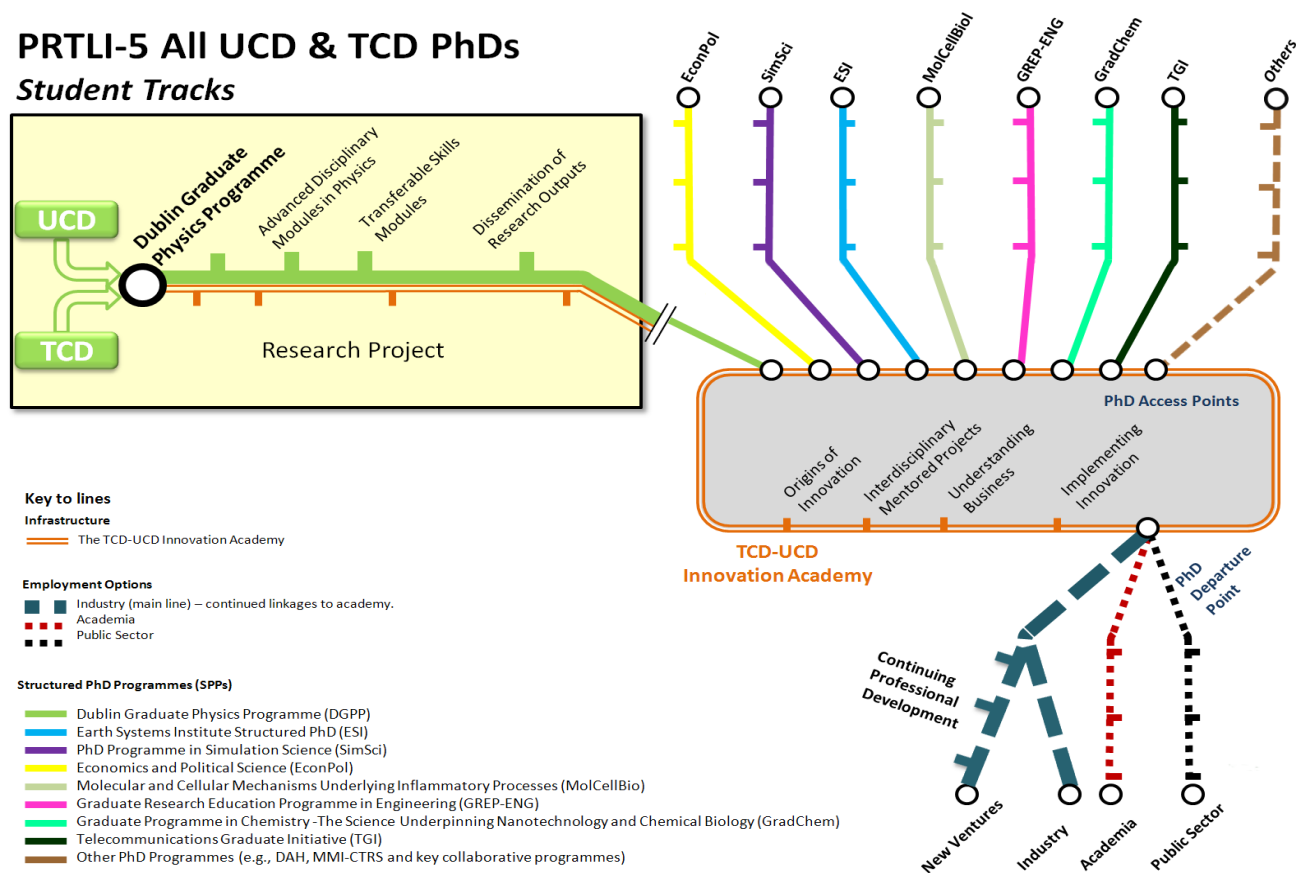
- Innovation and entrepreneurship education and training across both campuses, to include a TCD-UCD Graduate Certificate in Innovation and Entrepreneurship;
- Mentored interdisciplinary projects, focused on potential exploitation of doctoral research, as an integral element of the PhD;
- Access to generic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

The Innovation Academy draws on collaborative engagement across both institutions in areas such as creativity, business planning, venture financing and intellectual property and is the “glue” that links the disciplines and the research themes across our two institutions. The *Innovation Academy* overarches a series of Structured PhD Programmes (SPPs) and within these delivers innovation and entrepreneurship modules, generic and transferable skills, which coordinates interdisciplinary projects in business and other areas and facilitates liaison with Industry partners.

Under the auspices of the Innovation Alliance, TCD 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 human infrastructure needs and were the cornerstone of the institutions’ collaboration for Cycle 5 of the Programme for Research in Third Level Institutions – PRTL I – which cemented significant graduate education platforms between TCD and UCD – as illustrated below.

PRTL5 All UCD & TCD PhDs

Student Tracks



In PRTL5, Cycle 5, nine innovative structured PhD programmes were funded in Ireland, as well as the TCD-UCD Innovation Academy, with the majority of PhD students (180) registered to the structured programmes in either TCD or UCD. Indeed TCD led four of the PhD programmes and UCD led four of the PhD programmes (NUIG led one programme). TCD and UCD are the principal collaborating partners, 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.

PRTL5 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 now 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.

The *Innovation Academy* is also the specific vehicle for delivery of the new joint UCD-TCD Graduate Certificate Courses in Innovation and Entrepreneurship. Here, UCD and Trinity College 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, UCD and TCD 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.

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, Chief Academic Officer of TCD, the Dean of Research at TCD and Vice President for Research at UCD, The Director of Strategic Innovation at TCD and the Vice President for Innovation at UCD and the Deans of Graduate 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.

6. APPENDIX 2: HIGHER EDUCATION PROVISION IN THE CREATIVE ARTS AND MEDIA IN THE DUBLIN REGION

Current activities and provisions within the College

The Draft Terms of Reference document identifies seven specific ‘fields’ of the creative arts and applied cultural practices. Each of these fields features prominently in the research activities, taught programmes, and collaborative networks of at least one school in the College, and most feature in all. Although the fields described in the document as ‘Cultural and Heritage’ and ‘Literature and Languages’ (the latter including ‘cultural criticism’) best describe the general activities and provisions in a humanities environment, in recent years many of the schools have developed interests in, and have expanded their taught curricula to include provision for, ‘Visual Arts’, ‘Film & Media’, and ‘Performing Arts’.

Tangible evidence of this expansion of mission includes postgraduate programmes in creative arts (such as the MA in Directing for Theatre, and the MA in Creative Writing) and arts management (the MA in Cultural Policy), postgraduate modules which offer media skills (such as historical-documentary making in the MA in the History of the Media, and *Iriseoireacht* [Journalism] in the MA/Graduate Diploma: Writing and Communication in Irish), and, most recently, the submission of the first practice-based PhD, based in part on a photographic exhibition.

Moreover, individual academics have backgrounds in, and continue to be productive in, creative and performative activities: the staff of the UCD School of English, Drama and Film, for example, includes two novelists, one playwright and one poet, while members of the UCD School of Music compose, record and perform. Many others are involved in print and broadcast media (as journalists and broadcasters, but also as members of advisory groups), and integrate both media-consciousness and media education into their taught programmes.

The key point to be made about current provisions in creative arts and applied cultural practices within the UCD College of Arts & Celtic Studies is that all its schools are primarily concerned with historical and critical study within their disciplines, using established analytical techniques and modes of dissemination. The UCD School of Art History & Cultural Policy and the UCD School of Music, for example, train their students in history, analysis, theory and cultural understanding, whereas NCAD (National College of Art and Design) and the Dublin-area *conservatoires* respectively have curricula oriented more firmly (though not exclusively) towards performance. Students in the College can access the creative and/or performative aspects of their disciplines through the specialised taught programmes (mentioned above), with individual academics (at graduate level) and through the collaborations which individual schools have with other institutions and outside agencies, and through work-placements.

Improving structure towards a more coherent provision

There is a need for a more systematic identification of both gaps and areas of overlap in *taught* provision, undergraduate and postgraduate, between the schools of the College and other educational institutions of the Dublin area, particularly those providing a greater emphasis on vocational and media-oriented training. At present, the collaborations are mainly between individual scholars. Those collaborations which are between larger units within the institutions (for example, between departments in NCAD and schools of the

College) tend to reflect research interests. The focus in such a process should be on ‘complementarity’, given the complementarities between creative arts and media education and more traditional forms of scholarship.

Culture and community in Ireland: the arts and UCD College of Arts & Celtic Studies

The schools of the College are active in exploring artistic and intellectual traditions, trajectories and connections which are rooted in Ireland but have never been contained by its national border. Similarly, the reputation of scholarship within the College transcends the national border and its importance is globally recognised, in line with UCD’s strategic emphasis on “Forming Global Minds”. The contribution of such scholarship to communities in Ireland, and to the broader issues of social cohesion and cultural understanding, is determined by the accessibility of its product to the public, beyond that small section of the public which might access scholarly literature. With respect to this, two important observations have been made by scholars in this College.

First, the third-level sector is insufficiently involved in curriculum design at second-level to embed intellectual and artistic creativity more fully in the public consciousness. This is an issue which should be addressed.

Second, State and semi-State agencies involved in cultural heritage and cultural tourism have shown little interest in engaging fully with the vast reservoir of expert opinion within the academy, and the national cultural ‘product’ has been impoverished by that. The schools of the College, in common no doubt with schools and departments in the other educational institutions in the Dublin region, desire to contribute their expertise, via such agencies, to the better understanding of achievements of Irish people in literature, music, and the arts.