July 2012

Technological University of Dublin Alliance

Submission to the Higher Education Authority in response to 'Towards a Future Higher Education Landscape'

"The magnitude of the issues confronting the world requires whole people with their whole minds and hearts to lead us into tomorrow. And that, in turn, requires us to renew the human purpose and meaning at the heart of higher education."[1]

[1]The Heart of Higher Education, A Call for Renewal Nepo, Palmer, Scribner & Zajonc, Jossey Bass 2010

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1 OVERVIEW

As Ireland's only internationally competitive city region, Dublin's continued development is critical to the performance of the country as a whole. Higher education, recognised as being pivotal in reacquiring economic success and addressing societal issues, is a critical element in Dublin's and Ireland's development. To be globally competitive, a new type of university graduate, with societal and professional parity of esteem with traditional university graduates, is required. This graduate has core skills in their chosen area of study, and is also innovative, creative and entrepreneurial. She or he demonstrates the technical and relational capabilities sought by employers and is an independent thinker, constructive yet disruptive. This graduate can make a real impact on the economic and social challenges facing Dublin, Ireland and the world.

The Technological University of Dublin (TU Dublin) will be brought into being by the convergence of Dublin Institute of Technology (DIT), Institute of Technology Tallaght (ITT) and Institute of Technology Blanchardstown (ITB) who already share this vision for higher education and have an agreed strategy for its implementation. Together the three partners will use their collective experiences, capabilities and resources to deliver higher education in a more efficient and equitable manner. The new TU Dublin will be a unitary institution formed by the three partners seizing this unique opportunity to make real change. It will be a three campus autonomous degree awarding university with critical mass, a strong online presence, and deeply embedded in all aspects of Dublin life.

The mission of TU Dublin will be:

To make a real difference to Dublin and Ireland by providing practice-led, research-informed higher education of the highest quality for a new style of university graduate who is:

- Innovative, creative, entrepreneurial;
- Highly skilled, practical, and capable in an employment context;
- Technically and relationally competent to deal with uncertainty with confidence;
- Adaptive in complex and dynamic knowledge environments;
- An independent thinker, disruptive in a constructive way;
- Values-driven, active and ethical;
- A digitally literate global communicator;
- Able to engage continuously with learning.

The distinctive feature of the TU Dublin mission is to make a real difference. As a provider of third and fourth level technological education, the university is committed to and will work closely with enterprise, community and other partners. The University will be interdependent with rather than separate and aloof from its stakeholders. It will:

- work with partners in designing and delivering both programmes and each student's wider educational experience;
- include the provision of programmes in enterprise/community settings with widespread student and staff work placements;
- foster the co-production of new knowledge through the co-location of university researchers with researchers in enterprise and the community to enhance research relevance;
- be a leader in the commercialisation of research and venture creation for economic and social benefit to the region.

The seamless integration of teaching and learning, research and innovation, and engagement activities underpins TU Dublin's approach to education provision. Our teaching will be innovative, practice-led and research-informed, with shared responsibility for learning as a key principle and curricula designed to offer students opportunities and choice. TU Dublin's use-inspired research will support Ireland's innovation agenda through alignment with national research priorities and will help address the needs of activity clusters in the Dublin region such as ICT, engineering, health services, pharmaceuticals, the creative arts, culture, tourism, services and public policy.

TU Dublin will provide flexible education pathways for all, including those constrained by personal or professional circumstances, or economic or social disadvantage. Through its multi-campus locations, the University will provide multiple mode and flexible programme delivery with a choice of entry and exit points and a range of progression and transfer routes.

TU Dublin will have an international role and a global perspective and will help make Dublin a preferred destination for international students. It will foster a culture of internationalisation, deliver an internationalised curriculum, and build on existing links with universities globally, fostering student and staff exchanges and collaborative research.

The governance of TU Dublin will be characterised by autonomy balanced by transparency and accountability in the stewardship of public funds. Student representation will be a major part of the governance structure. New structures, roles and processes underpinned by a new HR system will be put in place. Consolidation of the three partners will enable enhanced efficiencies through a shared model of service delivery and rationalisation of programme provision.

TU Dublin's distinctive, rich contribution to higher education, enterprise and quality of life will help build the reputation of Dublin as amongst the most exciting, creative cities in the world. Its graduates will be Ireland's new employers, innovators and skilled professionals. At the heart of its success will be TU Dublin's capacity to engage others and bring about a real change in how higher education serves people and in how it addresses the major economic and social challenges facing our world.

2 TU DUBLIN PARTNERS

TU Dublin will be a new and vibrant higher education institution located in Dublin with a national and international profile. It will be formed from DIT, ITB and ITT. Over the last 3 years a strong partnership has evolved and has focused on the creation of a 'new university for a new Ireland' that will provide a cohesive and differentiated technological education offering in the Dublin region. Combining the complementary strengths of the partner institutions opens up a real possibility to create a different kind of educational entity for a new style of graduate.

DIT[2] has been an integral part of the Irish higher education system for over 125 years. With autonomous degree-awarding authority up to PhD level, DIT combines the excellence of a traditional university with professional career-oriented learning and prepares graduates for productive leadership roles in both the public and the private sectors. Supporting up to 20,000 students, DIT will be relocating to a single campus located in north inner city Dublin. Strong industry engagement is reflected in its successful technology transfer, enterprise creation and strong research base. DIT has helped to create more than 150 new enterprises which have raised almost €100 million in equity investment and created 1,000 smart economy jobs in the region.

ITB[3] has been pursuing its mission of making education accessible to a diversity of learners since it was established in 1999. The distinctive vibrancy of ITB's staff in pursuing this mission is one of its core strengths. 3,000 students attend ITB, of which 47% are classified as non-standard CAO, including 25% mature learners. From its campus, ITB offers a range of practice-based, career focused courses in informatics, engineering, business, humanities and trades.

ITT[4] is located in South Dublin County and was established 20 years ago. It has a student population of over 4,000 students of which 32% are part-time students. The percentage of part-time students is one of the highest in the country. It adapts programme design and delivery to meet the requirements of organisations and a number of its programmes are delivered off-campus in companies. In its relatively brief history it has grown in size, stature and in the range and level of programmes provided. It has a reputation for facilitating access to higher education from those groups traditionally under-represented. It has a very active research community for a college of its size and through the Synergy Centre provides supports to early-stage enterprises in the high technology and knowledge intensive sectors.

[2]www.dit.ie
[3]www.itb.ie
[4]www.it-tallaght.ie

3 TU DUBLIN IN THE DUBLIN AND IRISH HIGHER EDUCATION LANDSCAPE

3.1 Regional Context

Comprising primarily knowledge-intensive and service industries, the Dublin City Region is recognised as Ireland's only internationally competitive city region, with a population of over 1.2 million people[5]. Its continued development as an internationally competitive location is critical for the performance of the entire national economy. To sustain this knowledge region TU Dublin will work with others to:

- develop strong city leadership, engaging HEIs, business, local government and state agencies;
- create a vibrant place to live, learn and work, embedding high technology and sustainable technology clusters as part of the fabric of the city;
- nurture, attract and retain creative people, new business and innovative ideas.

An ideopolis[6] is a city of ideas, where knowledge, creativity, enterprise, connectivity and the quality of life combine to create a dynamic local economy. To build the reputation of Dublin as such a city region that can compare and compete with cities such as Barcelona, Toronto or Melbourne, it is essential that a more coherent eco-system of higher education institutions evolves, offering clear and comprehensive options. TU Dublin will have a distinctive profile that will add to that eco-system. It will be a new kind of university, practice-led, whilst being strongly informed by research.

In addition to maintaining the intellectual capital of the city, the region must also address the structural unemployment problem. The rate of unemployment in the Dublin region rose from 8.9% to 17.1% between 2006 and 2011[7]. The relationship between educational qualifications and labour force status is startling. Participation rates in higher education throughout the region are varied. Adjacent to the three campuses, are areas where participation rates in higher education are as low as 12% (See figure 1)[8]. At the same time there are skills gaps in sectors such as ICT, engineering, international sales, supply chain management, science and financial services. TU Dublin initiatives in up-skilling and re-skilling will help tackle these challenges.

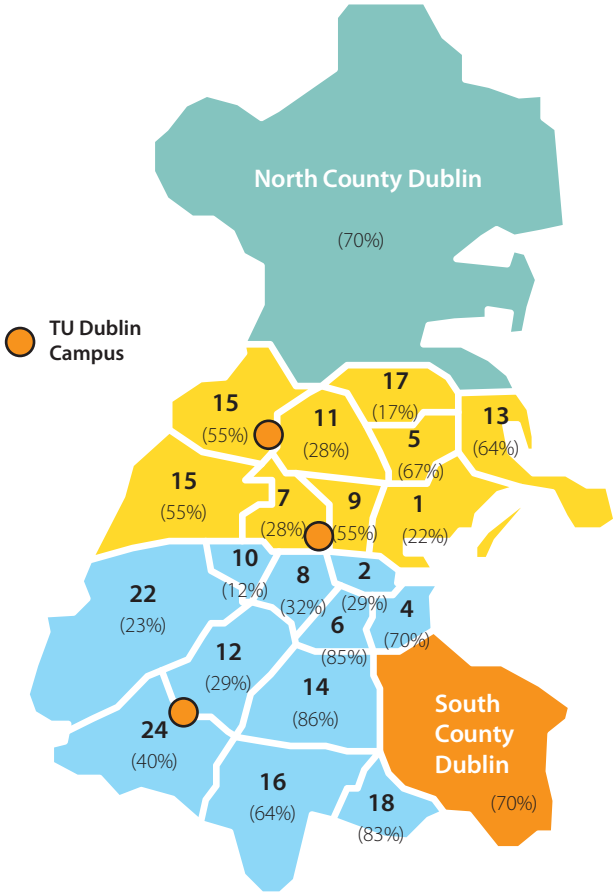


Figure 1: Higher Education Participation Rates by Dublin Postal Districts

[5]National Competitiveness Council, Our Cities; Drivers of National Cometitiveness, 2009
[6]Rowan Hoban, Ideopolis International, 2005
[7]2006 and 2011 Censuses
[8]Who Went to College in 2004? A National Survey of New Entrants to Higher Education, HEA

TU Dublin's mission responds to current Government imperatives and will help address the future needs of the region. It will:

- Provide appropriate higher education choices for a diverse population;
- Foster a new style of graduate equipped with the entrepreneurship, innovation and communication skills to succeed on the global stage;
- Embed engagement locally, nationally and internationally with academia, industry and society, as a differentiating aspect of every student's educational experience.

TU Dublin will complement and pro-actively work with the four existing universities in Dublin and match the leaders amongst relevant peer institutions globally (e.g. Universitat Politècnica de Catalunya, Barcelona; Ryerson University, Toronto; RMIT University, Melbourne) in delivering strong technological education to sustain Dublin as an internationally recognised 'region of knowledge'.

3.2 Distinctive Characteristics

Figure 2[9] indicates the range of activities undertaken in a HEI. The activities have different drivers such as widening participation, economic growth, learning programmes and research. The outer quadrilateral (pink) indicates the targeted future positioning of TU Dublin and the inner (purple) the current positioning of the three institutions. In TU Dublin there will be an

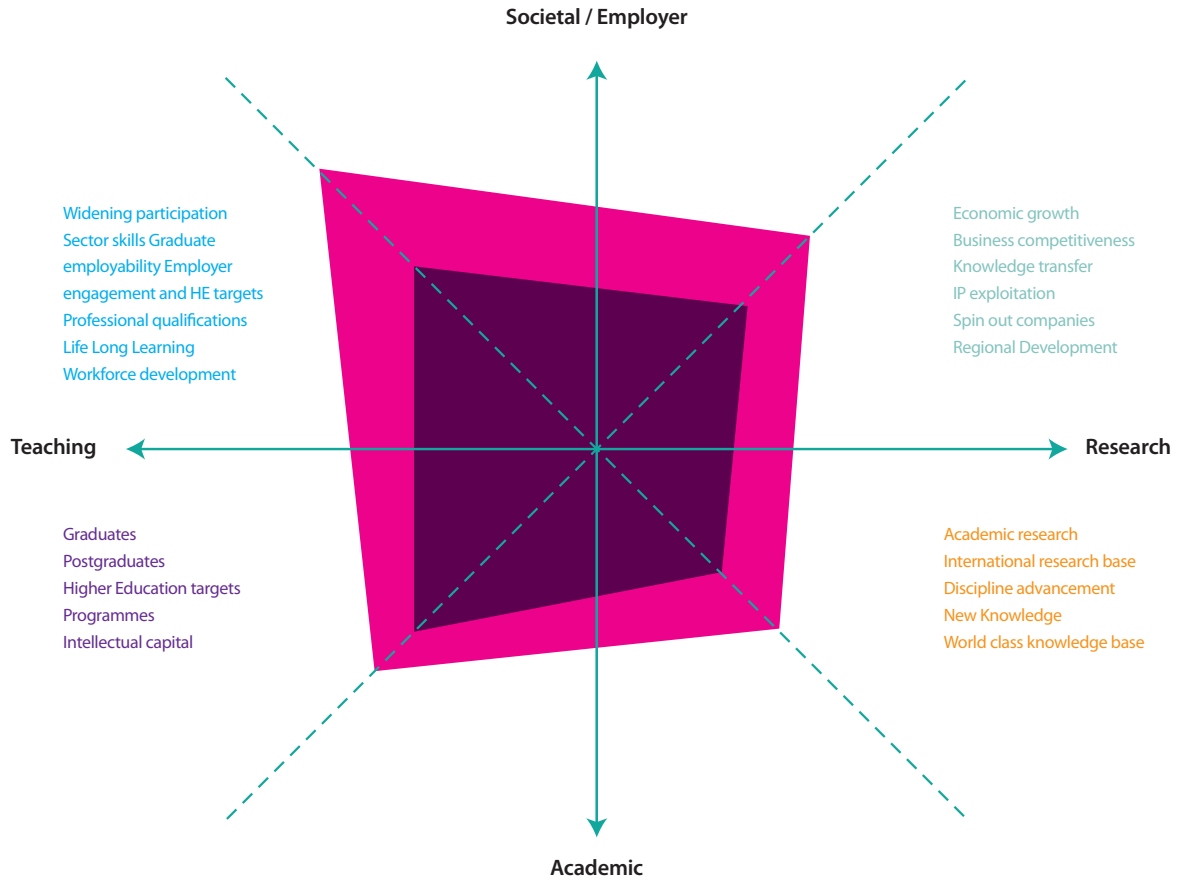


Figure 2: Indicative Positioning – Range of Activities in TU Dublin

[9]The diagram is adapted from a framework developed by Dr. M. Wedgewood, Manchester Metropolitan University

increased orientation towards society and enterprise and a greater emphasis on use-inspired research placing it as an outwardly focused regionally engaged university. Internally there are three inter-dependent activities: teaching and learning, research and innovation and engagement.

3.3 TU Dublin Collaboration

TU Dublin, as part of its strategy, will be proactive in initiating collaborations for the benefit of the region. The positioning of TU Dublin in the higher education landscape with respect to collaborations and clustering is depicted in Figure 3.

Within the Dublin region and Ireland, these collaborations will include:

- Dublin Regional Higher Education Alliance (DRHEA)[10] strengthening the region's higher education sector;
- The Green Way[11] – developing an internationally recognised clean-tech corridor in the heart of the region;
- The Global City Innovation Initiative, a collaboration with Trinity College Dublin and Dublin City Council for the co-production of knowledge through teaching, research and discovery;
- Build Up Skills, an EU initiative to assist Ireland in achieving sustainable policy objectives;

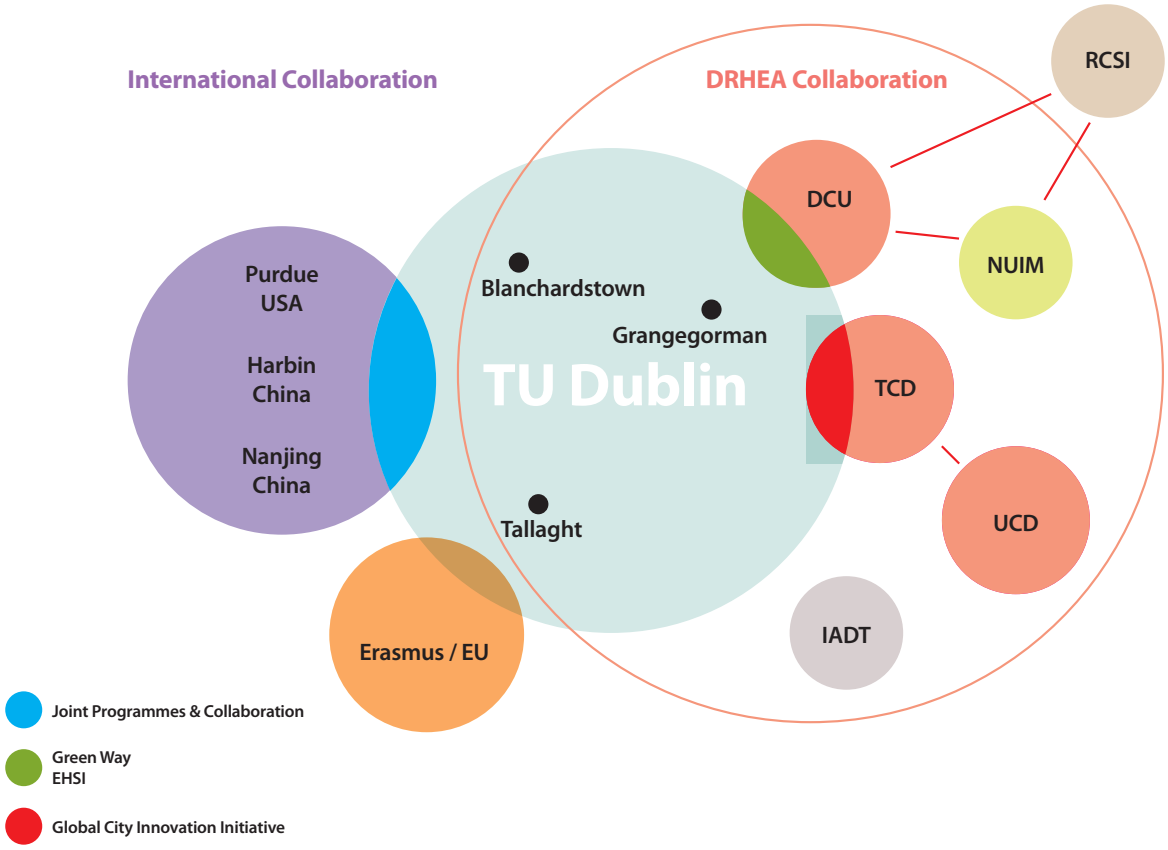


Figure 3: Indicative positioning of TU Dublin in the higher education landscape

[10]www.drhea.ie
[11]www.thegreenway.ie

- Continued enhancement of existing partnerships with professional bodies such as; Engineers Ireland, IBEC, Marketing Institute of Ireland, Society of Chartered Surveyors, the Royal Institute of the Architects of Ireland and the Association of Optometrists Ireland.

The development of future collaboration activity will build on the strong record of the partners in actively engaging with the relevant local authorities: Dublin City Council, Fingal County Council and South Dublin County Council.

Internationally the partners are involved in research and teaching partnerships with more than 200 world-class companies and academic institutions. Illustrative examples are:

- Collaboration with Purdue University and the Universitat Politecnica de Catalunya offering the MSc in Sustainability, Technology & Innovation supported by EU and US Government funding;
- Collaboration with Nanjing University of Technology in pharmaceutical science, electronic engineering and mechanical engineering;
- A regional learning network in partnership with CISCO, SAP and Citrix supporting transfer and progression opportunities for learners in FETAC colleges.

DIT is a full member of the European University Association (EUA)[12] and the International Association of Universities (IAU)[13]. Further opportunities for national and international collaboration to the benefit of the Dublin region and Ireland will open up to TU Dublin as a peer technological university. Specifically we will seek to develop a range of relationships with established technological universities globally.

3.4 Regional Engagement and Regional Clusters

TU Dublin will address in a fundamental way key factors that can often restrict **regional engagement** by HEIs. Aligning institutional strategy to regional priorities TU Dublin will have an explicit requirement to work with stakeholders in promoting and supporting economic and social progress.

TU Dublin partners will work actively in supporting the advancement of the Dublin region, through a range of initiatives, including their key involvement in regional clusters such as:

- Dublin Region Higher Education Alliance;
- Continuing contribution to the objectives of the Creative Dublin Alliance[14];
- Formal arrangements with FETAC colleges in the region to support transfer and progression pathways;
- The newly funded Dublin Region Innovation Consortium (DRIC)[15].

TU Dublin will build on existing experience; seek practical cooperation with other higher education institutions and organisations in the region, draw on aspects of the well established 'CONNECT' model of University of California San Diego[16], and thus play a major role in supporting the development of Dublin as a significant region of knowledge. TU Dublin will be a catalyst for economic renewal, sustainability and social development through collaboratively working to support the creation, growth and capacity building of leading edge organisations and interaction with the wider community.

[12]www.eua.be
[13]www.iau-aiu.net
[14]www.creativedublinalliance.ie
[15]DRIC is a consortium comprising DIT, ITB, ITT, Institute of Art, Design & Technology, Dun Laoghaire and National College of Ireland focused on enhancing technology transfer activities in the Dublin region.
[16]www.connect.org/about

Teaching &
Learning

4 TEACHING & LEARNING AND STUDENT PROFILE

4.1 Student Profile

TU Dublin will provide programmes from levels 6 to 10 on the National Framework of Qualifications, for students who are seeking a career-oriented, practice-led, research-informed higher education choice. The TU Dublin community will be characterised by a rich and diverse mix of student cohorts from all ages, backgrounds and entry gateways as shown in Figure 4. Details of the current student profile are provided in Appendix 2 whilst the future indicative forecast is provided in Appendix 3.

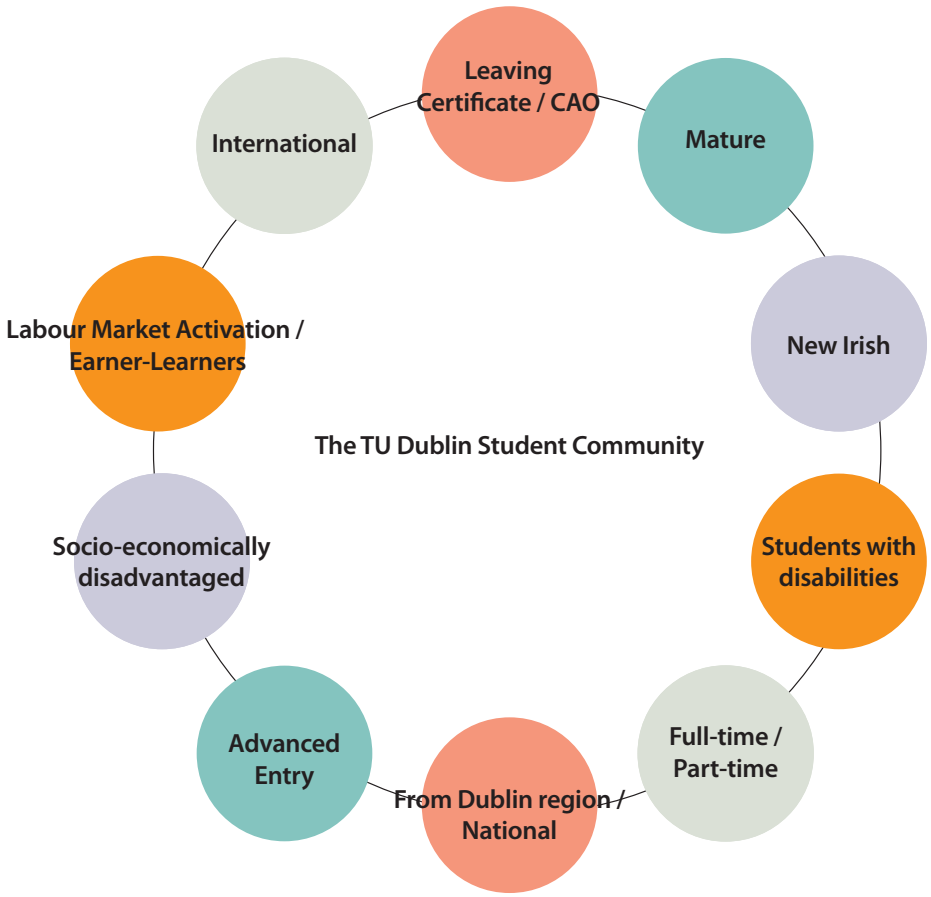


Figure 4: TU Dublin – A Diverse Student Community

Current student numbers of 22,738, represent over 11% of national provision. TU Dublin's total student numbers are projected to increase across all three campuses to approximately 27,000 by 2017. International student enrolment will account for 8% in 5 years and grow subsequently to 15%. Academic programmes will reflect the university's focus on technological education. In 2010/11, 39% of full time new entrants and 61% of full-and part-time PhDs were enrolled on science, engineering, manufacturing and construction programmes[17]. This discipline mix will be broadly maintained as shown in Figure 5. Our substantial creative arts and media provision falls largely within the ISCED coding for humanities and arts in Figure 5.

[17]HEA Institutional Profiles, 2012

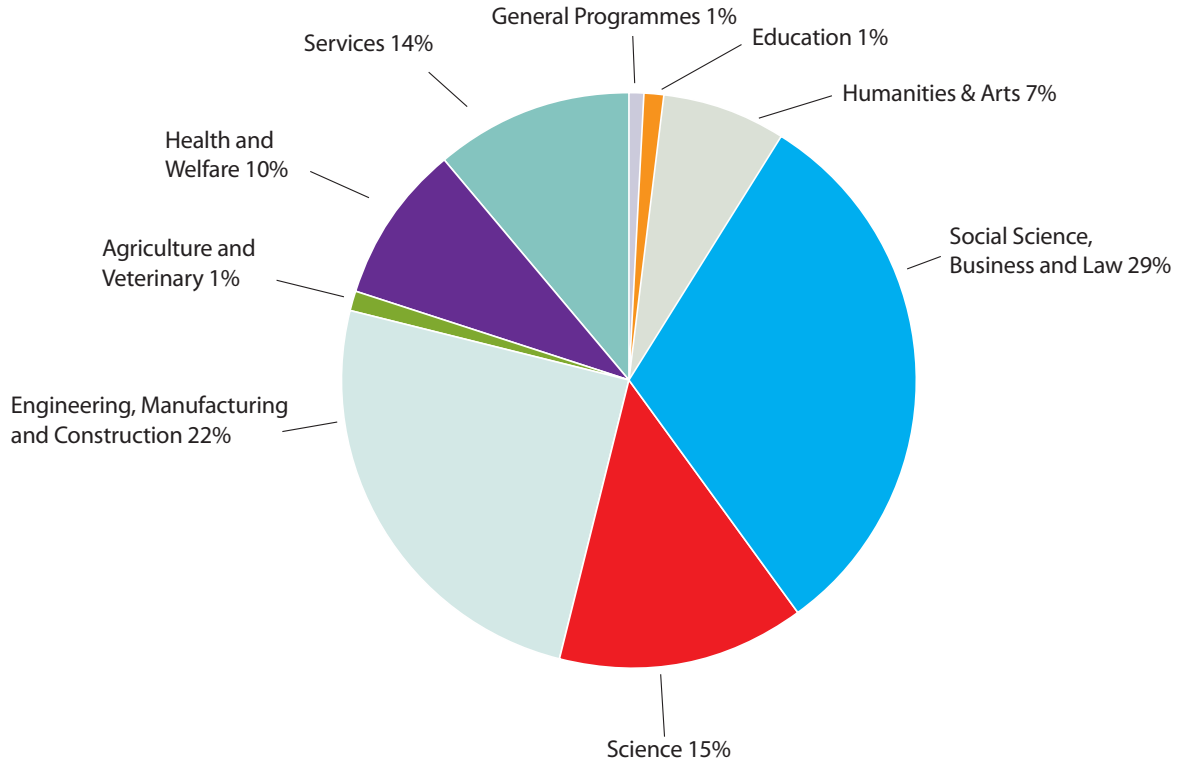


Figure 5: Student Numbers Forecast Breakdown by Discipline 2017

TU Dublin's programme portfolio will be designed to meet changing regional and national demands, as indicated by such reports as the Expert Group on Future Skill Needs[18], the National Competitiveness Council[19] and others. The forecast is to increase flexible learners on level 6-10 programmes to 35% of students. Programmes will be delivered via a number of modes, on campus, in companies, and by e-learning.

Table 1 shows the intended breakdown in TU Dublin by National Framework Qualifications (NFQ) level.

[18]Expert Group on Future Skill Needs, Key Skills to Trade Internationally, 2012
[19]National Competitiveness Council, Ireland's Competitiveness Scorecard, July 2012

Table 1 Projected Student Profile by NFQ Level 2017

NFQ Level	Projected total enrolments in TU Dublin (2017)	Projected % of total enrolments in TU Dublin (2017)	% of total enrolments for 3 partners (2010/11)	% Change in projected enrolments from 2010/11 to 2017
Level 6/7	10,350	38%	32%	41%
Level 8	11,600	43%	47%	8%
Level 9 (taught)	2,700	10%	9%	35%
Level 9 (research)	290	1%	1%	77%
Level 10	650	2%	2%	90%
Other	1,300	5%	9%	-39%
Total	26,890	100%	100%	18%

Note: 2017 Research (L9/10) as % of FTE L8 and all PG equates to 6%

Within our provision, the following points are of note:

- Growth in Level 6/7 provision as projected reflects the plans to provide entry gateways to as wide a cohort as possible including those in the region constrained by socio-economic or other factors. Individuals facing unemployment or working in industries vulnerable to redundancy will be supported through flexible provision for re-skilling and up-skilling. In so doing we will draw upon existing capabilities developed in response to labour market activation initiatives;
- TU Dublin will deliver sustainable apprenticeship education through a new model offering defined progression routes;
- Level 8 provision will increase in absolute terms albeit modestly;
- The formation of TU Dublin will require a review of the programme portfolio with rationalisation of some programmes being balanced by an expansion in alternative modes of delivery and the introduction of additional programmes to satisfy new requirements;
- TU Dublin will maintain the position of the partners as the largest and most diverse provider of higher education for creative and cultural industries in Ireland;
- Combined postgraduate provision is projected to account for 13% of total enrolments. Research students represent 6% of FTE enrolments at Level 8 to 10. The growth in research and taught postgraduate programmes will accommodate those graduates wishing to up-skill or re-skill. A significant proportion of postgraduates will be part-time.

The growth in postgraduate research activity is reflective of the partners' current research strategies and our intent to achieve growth over time equating to approximately 15% of current provision in the Dublin region. In so doing we will work collaboratively within the DRHEA and national PhD platforms further developing the mechanisms for structured PhD delivery amongst other graduate education initiatives. A key strand will also be the support for professional/enterprise-based Masters (M.Res) and PhDs, with 50 projected for 2017.

4.2 Teaching and Learning

A hallmark of the TU Dublin partners is their innovative approach to meeting teaching and learning needs of diverse student cohorts. TU Dublin's strengths will be enhanced, congruent with the needs of a new time and a new context, attracting individuals aspiring to be 'new' professionals. Universal design of curricula will be a feature of TU Dublin in meeting its existing and future learning needs to accomodate and support TU Dublin's mixed population. Our approach to teaching and learning will be characterised by un-anchored pace and place and will explore new models of interaction between learners, staff, and employers. There will be an emphasis on education for the community, in the community and by the community. Our learners will occupy different spaces at different times – sometimes physical, sometimes virtual.

Our general approach to teaching and learning will consist of four elements:

- Preparation and empowerment;
- Discovery and opportunity;
- Practice and application;
- Consolidation and reflection.

There will be an increased emphasis on preparation and empowerment to remove obstacles that might inhibit student success.

Figure 6 encompasses elements of TU Dublin's approach to teaching and learning provision.

This will include the TU Dublin Learning Partnership Agreement which provides a framework for learning as a shared responsibility. Students will become part of learning sets (groups of students) with peer mentors, sharing their experiences through projects and presentations. Existing practices such as the use of problem-based learning, work-based learning and new technologies will continue. In addition, we will exploit new pedagogical practices to support learners in

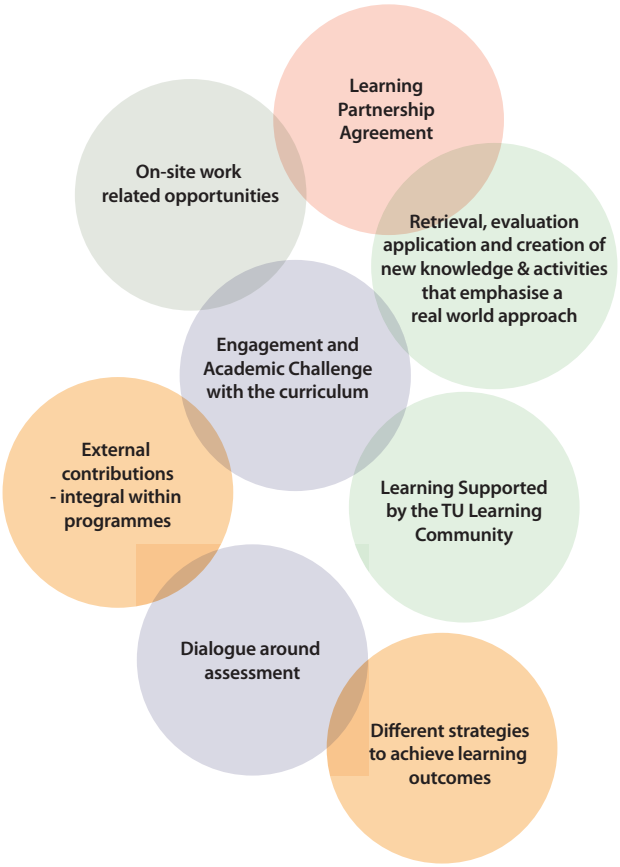


Figure 6: Elements of TU Dublin's Teaching & Learning Approaches

developing capabilities of assimilating and managing complex knowledge for future careers. Our personal pastoral approach to students will be further developed.

Industry partnerships will be leveraged to ensure a real-world broad approach to all our activities. A university-wide work placement framework will be implemented. The latter will be based on the already successful work-based placement activities taking place, with companies such as Intel, Google, Lucent Technologies, HP, Microsoft, JP Morgan, AIB, Clarion Hotels, Hilton Group and Abbey Tours.

Entrepreneurship modules for all students will be provided, so as to nurture creativity and innovation and develop commercialisation skills that will encourage would-be entrepreneurs on their path to new venture creation and/ or the use of such skills in other work settings. TU Dublin will draw on the track record of the award-winning Hothouse[20] activities in this regard. A module on 'sectoral knowledge' will be provided within each programme, ensuring that on graduation students have the appropriate understanding of their work environment (structure, major players, current technologies and developments in the sector). To ensure curricula are contemporaneous and meet the needs of employers in the region, a number of mechanisms will be rolled out to capture stakeholder input. TU Dublin will continue to have enterprise representation on programme validation panels; regular industry think tanks and engage pro-actively with employment leaders through initiatives such as the Corporate Partnership Network[21].

Learner pathways into and from our programmes will be simple and clear with multiple entry and exit points across levels 6 to 10 and staff readily accessible to advise on these. Links with further education colleges are already established and will be further enhanced. Common first years and 365 day x 24 hour delivery will open up choice where appropriate.

Internationalisation is a key feature of the TU Dublin offering. All programmes will be designed to promote multi-cultural awareness; provide a global perspective to the operations of the industry sectors and the specific discipline which the student is studying; and provide opportunities to students to learn and discover in an international context, enhancing their abilities to be effective global citizens and sought-after employees and leaders.

[20]ww.dit.ie/hothouse
[21]ww.dit.ie/cpn

Research

5 RESEARCH AND INNOVATION

5.1 Research Activity

Distinctive Approach to Research

TU Dublin aims to be an important source of research and discovery that advances human knowledge and makes a real impact on people's life experience while underpinning teaching and learning at all levels. TU Dublin is committed to undertaking research which is strategically important, internationally benchmarked and enhances Dublin's role as Ireland's global gate-way.

TU Dublin will pursue **use-inspired, goal-oriented research and discovery** that contributes to human knowledge and well-being leading to commercial and societal impact and benefit. On all three campuses, the research community will work side-by-side with industrial and other collaborators. The aim is to bring together state-of-the-art thinking and cross-disciplinary hands-on practice to forge a paradigm shift in education and research in Ireland. To this end, TU Dublin will create a research environment that will be unique in Ireland, co-locating researchers and research students with knowledge professionals, end-users and entrepreneurs. The research agenda will develop innovative solutions for next generation problems, translating the research into new and improved products, processes and policies. A current example of such an approach is EHSI, the Environmental Health Sciences Institute, funded by the Programme for Research in Third-level Institutions (PRTLI), a partnership led by DIT with the Health Services Executive, Dublin City Council, Dublin City University (DCU), University of Ulster (UU) and the Institute for Public Health in Ireland.

Research Focus and Volume

Our multi-campus university will deliver an integrated research platform based around designated and sustainable centres of excellence. Dedicated research space and facilities will support domain expertise. TU Dublin will concentrate on four research pillars of Environment, Health and Energy; Information and Media Technologies; New Materials and Design; and Society, Culture and Enterprise, which align with national and international priorities. Today, the TU Dublin partners have 4% of all research students in Ireland, graduating over 50 PhD students in 2009/10. TU Dublin partners have experienced consistent growth in research output with considerably above average impact as measured by citations, notably in the science and engineering disciplines.

Table 2 below summarises actual and forecast research outputs over the period from 2011 to 2017.

Table 2 Research Outputs 2011 and 2017

	2011	2017
Research Students	506	940
Research Income (€m)	20	35
Publications	1,128	2,000
Citations (since 2010)	20,540	30,000
Research Active Staff	291	500

TU Dublin will proactively seek collaboration nationally and internationally and participate in research networks and clusters, to enhance scale and create capability to address global questions. Strong participation in the forthcoming EU Horizon 2020 programme is anticipated. The TU Dublin partners have continued to grow research capacity via leadership and participation in collaborative research initiatives such as:

- The Centre of Applied Science for Health is the primary research centre for health related applied research in ITT. Established in 2007, in partnership with the National University of Ireland, National University of Ireland, Maynooth (NUIM), DCU and the Adelaide and Meath Hospital[22];
- DECIPHER, an EU funded project involving DIT; National Gallery of Ireland; Irish Museum of Modern Art; Open University; System Simulation Limited; Brno University of Technology and Alinari 24 ORE SpA. It aims to support the discovery and exploration of cultural heritage through story and narrative, by developing new solutions to narrative construction, knowledge visualisation and display problems for museums.[23]
- The Centre for Telecommunications Value-Chain Research, funded by Science Foundation Ireland, a partnership led by Trinity College Dublin (TCD) with DIT, NUIM; DCU; Tyndall National Institute; University College Cork and University of Limerick.[24]
- National Audio Visual Repository, funded by PRTLI is a partnership led by the Royal Irish Academy with DIT, NUIM, TCD, NUI Galway, National College of Art & Design, UU and Queens University with the national cultural institutions, RTE, TG4, NAI, NESF and NLI and industry partners Microsoft, Intel and IBM.[25]
- Intelligent Transportation Systems Group[26] which has developed a vehicular mobile mapping system in conjunction with the National Roads Authority.
- National PhD platforms such as the Integrated NanoScience Platform for Ireland (INSPIRE), National Biophotonics Imaging Platform Ireland (NPIBI), the Telecommunication Graduate Inititative and the Graduate School for Creative Arts and Media.

Research Culture

TU Dublin will continue to foster a truly interdisciplinary research culture, with researchers encouraged to explore new ideas and technologies at the interfaces of different domains. Research in TU Dublin will be entrepreneurial in nature, driven both by the requirements of stakeholders and the natural curiosity and inventiveness of our researchers. There will be enhanced mobility for staff and students across teaching, research and industry. Research insights of colleagues will directly inform curriculum innovation and the development of new programmes. This approach will bring research into the classroom for both graduate and undergraduate students. Research will adhere to accepted standards of scientific integrity and research ethics.

Research with teaching and engagement will be formally recognised in recruitment and promotion criteria, as an integral component of the academic and intellectual life in TU Dublin. We will support research career structures so that academics can rotate from research to teaching to research again over their working lives. In addition, we will promote a pro-inventor IP policy which encourages researchers to commercialise their research and set up companies.

Research students will enrol in structured doctoral programmes aligned to TU Dublin's research "pillars". These will provide a rich and stimulating research environment, combining professional skills in communication and pedagogy, project management, intellectual property, commercialisation and entrepreneurship with modules specific to their discipline. Progress and development will be nurtured and supported by a single cross-campus graduate research school. Many graduate students will pursue an internship or other practical experiences as part of their doctoral training, e.g. enterprise-based PhDs.

[22]www.appliedscience4health.ie
[23]www.decipher-research.eu
[24]www.ctvr.ie
[25]www.dmc.dit.ie/projects/navr.html
[26]www. www.itb.ie/researchatitb/intelligent-transportation-systems.html.

With the support of our commercialisation office, students will be encouraged to consider how their research can be translated into new products and services.

5.2 Knowledge Exchange

Knowledge exchange is already well ingrained in the culture and practice of the TU Dublin partners with business incubators such as Hothouse Centre, Synergy Centre, Synergy Global and the Learning & Innovation Centre in operation. These incubators provide infrastructural and business supports to early-stage high tech enterprises working with agencies and organisations such as county enterprise boards, Enterprise Ireland, the Small Firms Association and local chambers of commerce. To date these incubators have supported 465 entrepreneurs, 66% of whom continue to trade successfully. Equity investments have exceeded €100 million and over 1500 quality jobs have been created.

The following examples illustrate the potential that exists for TU Dublin to make a real impact.

- Hothouse secured one in every five technology transfer licences completed by Ireland's Higher Education sector in 2011 whilst accounting for 3% of the national expenditure on research.
- Cumulative activity for the partners since 2007 includes:
  - 212 invention disclosures;
  - 149 innovation vouchers;
  - 45 licenses, options and assignments;
  - 35 patents filed;
  - 18 Innovation partnerships;
  - 10 spin out companies.
- Synergies between the three institutions have been advanced through their joint success with the Institute of Art, Design and Technology, Dun Laoghaire in securing new funding from Enterprise Ireland for technology transfer activities;
- The delivery of entrepreneurship programmes at undergraduate and postgraduate levels and a range of supports to high-tech start ups in the city region.

Translation of research outputs into new products and services will be a differentiating feature of TU Dublin. Consistent with our mission, the quality of our research and innovation outputs and outcomes will be peer reviewed internationally. Economic and societal impact will be assessed and excellence determined by a number of factors including the demand for graduates and postgraduates, research investment, the quality of academic and scholarly publications and the success in influencing and informing national and EU policy.

Engagement

6 ENGAGEMENT

As a university, TU Dublin sees itself as being interdependent with, rather than separate and aloof from, its multiple stake-holders and its approach to engagement will be informed by this principle. The quality and depth of engagement will be embedded as a university-wide defining characteristic of TU. Engagement at regional level has been addressed in Section 3.2 and in this section we will focus on engagement with students, our communities and enterprise.

Student engagement is fundamental to optimally developing the potential of each student. Integrating the student into the life of the university and involving them in educationally relevant, beyond-class experiences is very important. In TU Dublin our approach to student engagement will adhere to the following principles:

- Active learning;
- Supportive learning environments;
- Learning as a shared responsibility;
- Student involvement in academic quality assurance processes;
- Enriching educational experiences;
- Informed by TU Dublin's internal knowledge of capabilities;
- Involvement as part of community.

Through our enhanced focus on student engagement we will:

- Achieve a target completion rate of 90% for all students with particular emphasis on student progression for level 6 and level 7 programmes;
- Increase the number, range and quality of student enrichment and engagement opportunities, both curriculum-based and extra-curricular to enable students to be active and engaged citizens;
- Enhance the institutional learning environment, associated policies and infrastructures to better support processes and practice that build student engagement;
- Improve internal knowledge of capabilities for enhancing student engagement.

Engagement with the community and wider society will be embedded within TU Dublin through building strong relationships. Capitalising on our existing strengths, the curriculum will incorporate course-based collaborative service-learning or community-based learning projects which will enrich learning and strengthen communities. TU Dublin will become a focal point for its surrounding communities and will contribute to the direction of public policy.

Examples of engagement activities are:

- Involving community representatives in the development, delivery and evaluation of provision, e.g., on programme boards;
- Offering community-based research/ science shop opportunities to TU Dublin students;
- Involving students and staff with activities such as mathematics initiatives for second level students;
- Mainstreaming initiatives that facilitate entry into higher education of people from socio-economically disadvantaged communities, such as the Computer Learning in Communities Programme[27];
- Encouraging community education providers to locate on TU Dublin campuses, thereby building links and overcoming barriers to access;
- Playing a proactive part in building cohesive communities;
- Making campus amenities available to local communities.

TU Dublin partners have an established record of **enterprise engagement** across a range of activities, disciplines and functions.

[27] www.communitylinks.ie/students-learning-with-communities

These include:

- the delivery of programmes with companies such as Intel, Oracle, Pfizer, Dublin Airport Authority, Musgrave Group;
- IP and network training with Damovo Ireland and Ericsson Ireland;
- working with ceramic manufacture, VitrA Ireland on technology developed to combat MRSA;
- collaborating with Mobile Aware Ltd., on mobile software development through innovative partner initiatives;
- supporting events such as "Be Inspired"[28] to promote Irish success stories such as the Brown Bag films.

TU Dublin will continue to build targeted and structured relationships with key leading edge companies and organisations. The multi-faceted Corporate Partnership Network will be a coordinating mechanism in that regard and will help support the developmemt of meaningful strategic relationships with multinationals, SMEs, indigenous organisations, agencies, professions and representative groups across a range of designated sectors.

7 INTERNATIONAL ORIENTATION

Ireland's economy is open and export orientated. TU Dublin recognises that, to make an impact nationally and internationally, its graduates will require attributes that enable them to build relationships internationally. Notwithstanding its Dublin location, the university's perspective therefore will be a global one and its activities and structures will reflect this. The spectrum of the activities anticipated is shown in Table 3**.**

Work to internationalise TU Dublin will have both external and internal aspects. Externally, our approach will concentrate on six pillars of activity:

- Working with state agencies, other universities and higher education providers to make Dublin attractive as a city for international students;
- Working with Irish and foreign governments in higher education diplomacy;
- Increasing the engagement of international alumni in our priority regions of China, India, Malaysia, USA and Canada;
- Working with education providers overseas;
- Operating campuses overseas in association with international partners e.g. the Tourism College in Hainan, China;
- Fostering relationships with industry and business in countries where we are active, to include Irish organisations.

Internally, our efforts will concentrate on:

- Incorporating an international perspective into all programme design and re-design;
- Implementing policies that facilitate international engagement, and promote staff and student exchange programmes to increase international participation, exposure and experience;
- Providing international work placements and opportunities to volunteers overseas as part of TU Dublin programmes;
- Ensuring an ethical approach to international students;
- Globalising both the physical and virtual dimensions of TU Dublin.

Structurally, international activity will be co-ordinated and managed through a dedicated entity within the university itself.

[28]www.dit.ie/hothouse/newsevents/mediacentre/hothousevideos/beinspired

Table 3: Typology of International Activities

Internationalisation	Type of Objective	Principal Characteristics	Benefits
As 21st Century Educational Imperative	Expose TU Dublin students to a globalised campus	– Vibrant multicultural campus; – Programmes leveraging cultural diversity & gobal perspectives; – Staff & student exchange programmes; – Sought after internationally recognised qualifications delivered in a supportive environment.	– Enhanced student experience; – Sought after internationally recognised qualifications.
As UG Enrolment Mechanism	Recruit high performing UG students	– Quality marketing & recruitment; – School & college relationships; – Sustainable pipelines to quality programmes.	Sought after qualifications
As PG Enrolment Mechanism	Recruit capable PG students into sustainable taught and research programmes	– Quality marketing & recruitment; – College & university relationships; – Sustainable pipelines to centres of excellence.	Sustainable centres of excellence
As Partnership	Strategic campus alliances with a select number of global partner institutions	– Joint programmes; – Staff & student exchanges; – Global citizenship.	Staff and student access to leading-edge facilities and peers
As Joint Research Venture	Generate revenue and other opportunities with an international partner	– Global 'hub' development overseas; – Revenue generation; – Joint campus 'recruitment pipeline' creation.	Staff and student access to leading-edge facilities and peers
As Sole Provider	To establish overseas presence for revenue generation	– Commercial focus & operation; – Distance & blended models; – Overseas campuses; – ESBi type model.	Increased reach and revenue generation
As Benchmarking Process	Share & import best practice models in HE	– Systems approach; – Academic, admin and support focus.	Enhance quality of provision
As Engine for Regional Development	Use educational bridges to to create regional business linkages	Partnership with Chamber of Commerce and individual companies to identify business opportunities for Irish companies	Marketing Dublin to the world
As International Aid Mechanism	Students and staff provide credible resources to help communities overseas	Formal systems allow staff and students to gain overseas experience via 'aid' programmes and volunteerism	A contribution to our global responsibilities

8 LEADERSHIP, MANAGEMENT AND GOVERNANCE

The university will have autonomous awarding powers to Level 10. Such autonomy balanced by transparency, accountability and stewardship of public funds will be the essential characteristics of governance in TU Dublin. Its structural framework will comprise:

- The *Board of Trustees*, to be comprised of local and international trustees, will bear ultimate accountability for the university and its affairs. In recognition of the importance of graduate attributes a convocation of alumni will survey and report annually to the Board of Trustees on this specific matter.
- The *Senate*, will be responsible for up-holding the academic standards and quality underpinning the university's awarding powers. Students, academic staff and management will each be afforded 33% representation.
- The *International Advisory Panel*, consisting of advisors from peer institutions worldwide, will report directly to the Board of Trustees and will support the international work of the university.
- *Special Advisory Boards*, reporting to the Executive Team, will bring external stakeholders to the centre of the university's governance arrangements. There will be multiple Boards, each one bringing the perspective of a particular constituency into TU Dublin.
- The *Executive Team*, under the auspices of the university President, will discharge executive leadership and management responsibilities.

TU Dublin's structural requirements have yet to be established, but some principles have been determined which will under-pin the eventual design. These include multi-campus delivery of programmes and services, where consistent with efficient use of resources as indicated in Figure 7 and the creation of senior roles for activities of high institutional significance.

	Campus 1	Campus 2	Campus 3
Discipline 1	√	√	√
Discipline 2	√		
Discipline 3			√
Discipline 4		√	√
Discipline 5	√	√	
Service 1	√	√	√
Service 2		√	√
Service 3	√		

Figure 7: Multi-campus Delivery of Programmes and Services

Services

Within TU Dublin, attention will be given to both the technical and relational aspects of service provision. Given the diversity of learners, it is recognised that one size will not fit all. The model for learning in TU Dublin will underpin the provision of learner services, physically and virtually. As a consequence, an integrated offering of academic and non-academic services will be provided.

Our Staff

A critical dependency in the realisation of the TU Dublin vision will be the strategy adopted in relation to our staff. Along with new HR policies and practices, which we see as essential, more critical is the need for sufficient institutional autonomy to implement a new HR system tailored to the needs of a modern technological university. Examples of some elements of the HR system envisaged are:

- Equitable and flexible workloads centred on areas of individual expertise and interest;
  Example: Use of a workload model for academic staff whereby academic colleagues may concentrate on teaching in one year and in another year, work only on a research project.
- Recognition of excellence in areas such as teaching and learning, research and innovation and service provision;
  Example: Award of the title of Professor for outstanding contributions.

- Maintenance of leading edge technical knowledge and skills;
  Example: Enabling staff undertake a secondment to a leading company or public organisation, locally or internationally.
- An emphasis on staff taking responsibility for their own learning, whilst focusing on strengths;
  Example: Linking evidence of learning to promotion.
- Contractual conditions and work practices that facilitate flexible delivery of programmes and services.
  Example: Accessibility of programmes and service, day-time and evening, throughout the year.

In creating TU Dublin, it is intended that its ethos will value the professional experience and academic qualifications of all staff. To support this ethos, the HR system will have parity of esteem between teaching, research and engagement consistent with the nature of a Technological University.

A second critical dependency is the change process deployed. We are mindful that to truly create a different type of educational institution in Dublin, the process by which it is created must itself be different. Therefore, considerable attention will be paid to the methodologies used, and in particular to involving those likely to be impacted in a meaningful way. Consultation and negotiation with social partners will be an aspect of this. Such involvement, we believe, is the only sustainable means of achieving appropriate change while ensuring that necessary stability in all three institutes is maintained during the transition. The three institutions have already prepared a work plan to implement their vision for TU Dublin. The plan has been underpinned by this approach. Appendix 3 provides further detail on our approach to the change process.

Finance

In a context of recent sharp reductions in State funding, we anticipate that in the medium to longer term, TU Dublin will move incrementally towards a sustainable financial position, as it takes steps to reach the following objectives:

- Growth in student numbers across all campuses, to include 8% fee-paying international students;
- Delivery of courses on a 52 week per year basis, physically or virtually, and related usage of campus facilities;
- Sharing of services on a collaborative basis across university campuses and with other public services bodies and streamlining of course provision throughout;
- Adoption of an appropriate funding model for Junior Music provision.

9 CONCLUSION

TU Dublin's distinctive, rich contribution to higher education, enterprise and quality of life will help build the reputation of Dublin as amongst the most exciting, creative cities in the world. Its graduates will be Ireland's new employers, innovators and skilled professionals. At the heart of its success will be TU Dublin's capacity to engage others and bring about a real change in how higher education serves people and in how it addresses the major economic and social challenges facing our world. The TU Dublin Alliance of DIT, ITB and ITT hereby confirms its intention to seek the status of Technological University.

Appendix 1

Indicative forecast only. It is recognised that it cannot be exact.
Institution Name: Technological University of Dublin
Future Year 2017

STUDENT NUMBERS

Entrants

		% change over current
New Entrants (Full-time Undergraduate)	5000	6

Graduates

	Nos.	%
Undergraduate Graduates	5000	77%
Postgraduate Graduates	1500	23%
Total	6500	

Enrolments

	Full-time%	Part-time%	Total			Full-time%	Part-time%	Total
Other Enrolments (IoTs only)	**30**	**200**	**230**	**Other Enrolments (IoTs only)**	**%**	13%	87%	**100%**
Foundation	30		30	Foundation	%	100%	%	**13%**
FETAC Cert				FETAC Cert	%	0%	0%	0%
FETAC Advanced Cert		200	200	FETAC Advanced Cert	%	0%	100%	**87%**
					%			
Undergraduate	**15,900**	**7,350**	**23,250**	**Undergraduate**	**%**	68%	32%	**86%**
Higher certificate	1,400	3,050	4,450	Higher certificate	%	31%	69%	**17%**
Ordinary Degree (L7)	4,200	1,700	5,900	Ordinary Degree (L7)	%	71%	29%	**22%**
Honours Degree (L8)	10,200	1,400	11,600	Honours Degree (L8)	%	88%	12%	**43%**
Occasional	100	1,200	1,300	Occasional	%	8%	92%	**5%**
Postgraduate	**1,510**	**2,130**	**3,640**	**Postgraduate**		41%	59%	**14%**
Postgrad Diploma/Cert	150	300	450	Postgrad Diploma/Cert	%	33%	67%	**2%**
Masters Taught (L9)	750	1,500	2,250	Masters Taught (L9)	%	33%	67%	**8%**
Masters Research (L9)	180	110	290	Masters Research (L9)	%	62%	38%	**1%**
PhD (L10)	430	220	650	PhD (L10)	%	66%	34%	**2%**
Occasional	-	-	-	Occasional	%	0%	0%	0%
Total Enrolments	**17,410**	**9,480**	**26,890**	**Total Enrolments**	**%**	**65%**	**35%**	**100%**

FTE	Research & Taught (L9/10)		2,575	Research & Taught (L9/10)	% FTE L8 and All PG	**19%**
FTE	Research (L9/10)		775	Research (L9/10)	% FTE L8 and All PG	**6%**
FTE	Research (L10)		540	Research (L10)	% FTE L8 and All PG	**4%**
FTE	Level 8 and all PG	11,710	1,765	13,475		

DISCIPLINARY MIX

Full-time Undergraduate New Entrants

	%
General Programmes	1%
Education Science	1%
Humanities & Arts	7%
Social Science, Business & Law	29%
Science	15%
Engineering, Manufacturing & Construction	22%
Agriculture & Veterinary	1%
Health & Welfare	10%
Services	14%
Combined	0%
Total	**100%**

Full and Part-time PhDs

	%
General Programmes	2%
Education Science	
Humanities & Arts	17%
Social Science, Business & Law	18%
Science	38%
Engineering, Manufacturing & Construction	23%
Agriculture & Veterinary	
Health & Welfare	
Services	2%
Combined	
Total	**100%**

STUDENT PROFILE

(% of Enrolments)		%	*New Entrants)*		%
Flexible Learners (Part-time, Distance, E-Learning)	9,480	35%	Mature Entrants (Full-time Undergraduate)	800	16%
note Distance and E-learning included in part-time numbers and craft L6 technicians					
International Students (Full-time)	1,400	8%	Estimate: Entrants with Disability (EAS***)	500	10%
Of which Non-EU		80%			

PROGRESSION Targets

Non-Progression Rate from 1st to 2nd Year	10%

STAFF & FINANCIAL DATA

	%
Core Staff	**100%**
Academic Staff	59%
Support staff	41%
Contract Research & Specialist Staff	**100%**
Academic Staff	70%
Support staff	30%
Total Staff	**100%**
Total Academic	56%
Total Support	44%

	%
Total Income	**100%**
State Grants	49%
Fees	28%
Research Grants & Contracts	9%
Other Income	14%
Total Expenditure	**100%**
Core - Pay	66%
Core - Non-Pay	25%
Research Grants & Contracts - Pay	4%
Research Grants & Contracts - Non-Pay	5%

Staff Qualifications (as % of total FTE academic staff including research	%
Full-time Academic Staff with PhD qualification	45%
Full-time Academic Staff with PhD or Masters qu.	90%
All Academic Staff with PhD qualification	
All Academic Staff with PhD or Masters qualification	

Note: The number enrolled under other enrolments are not considered for meeting the 30% part-time criteria

Appendix 2

TU Dublin – DIT, ITB, ITT
Profile 2010/11

STUDENT NUMBERS

Entrants

	No.
New Entrants (Full-time Undergraduate)	4,698

Graduates

	No.	%
Undergraduate Graduates	4,422	80%
Postgraduate Graduates	1,074	20%

Enrolments

		Full-time	Part-time	Total
Other Enrolments (IoTs only)	**No.**	**31**	**3,269**	**3,300**
Foundation	No.	31	0	31
FETAC Cert	No.	0	0	0
FETAC Advanced Cert	No.	0	3,269	3,269
of which are apprenticeships	No.	0	3,039	3,039
Undergraduate	***No.***	***15,264***	***4,151***	***19,415***
Diploma/Cert	No.	1,340	688	2,028
Ordinary Degree (L7)	No.	4,070	1,252	5,322
Honours Degree (L8)	No.	9,706	1,040	10,746
Occasional	No.	148	1,171	1,319
Postgraduate	***No.***	***1,199***	***1,373***	***2,572***
Postgrad Diploma/Cert	No.	144	197	341
Masters Taught (L9)	No.	674	981	1,655
Masters Research (L9)	No.	111	53	164
PhD (L10)	No.	270	72	342
Occasional	No.	0	70	70
Total Enrolments	**No.**	**16,463**	**5,524**	**21,987**
Distance Education	No.			637
E-Learning	No.			80
In-Service Education	No.			34
Total Enrols incl. Flexible Learning	**No.**	**16,463**	**5,524**	**22,738**
Research & Taught (L9/10)	FTE			1,608
Research (L9/10)	FTE			444
Research (L10)	FTE			306

		Full-time	Part-time	Total
Other Enrolments (IoTs only)	**%**	**1%**	**99%**	**100%**
Foundation	%	100%	0%	1%
FETAC Cert	%	0%	0%	0%
FETAC Advanced Cert	%	0%	100%	99%
of which are apprenticeships	%	0%	100%	92%
Undergraduate	***%***	***79%***	***21%***	***88%***
Diploma/Cert	%	66%	34%	10%
Ordinary Degree (L7)	%	76%	24%	27%
Honours Degree (L8)	%	90%	10%	55%
Occasional	%	11%	89%	7%
Postgraduate	***%***	***47%***	***53%***	***12%***
Postgrad Diploma/Cert	%	42%	58%	13%
Masters Taught (L9)	%	41%	59%	64%
Masters Research (L9)	%	68%	32%	6%
PhD (L10)	%	79%	21%	13%
Occasional	%	0%	100%	3%
Total Enrolments	**%**	**75%**	**25%**	**100%**
Distance Education	%			2.8%
E-Learning	%			0.4%
In-Service Education	%			0.1%
Total Enrols incl. Flexible Learning	**%**	**72%**	**24%**	**100%**
Research & Taught (L9/10)	% FTE L8 and All PG			13.3%
Research (L9/10)	% FTE L8 and All PG			3.7%
Research (L10)	% FTE L8 and All PG			2.5%

DISCIPLINARY MIX

Full-time Undergraduate New Entrants

	No.	%
General Programmes	46	1%
Education Science	39	1%
Humanities & Arts	342	7%
Social Science, Business & Law	1,385	29%
Science	727	15%
Engineering, Manufacturing & Construction	1,018	22%
Agriculture & Veterinary	33	1%
Health & Welfare	471	10%
Services	637	14%
Combined	0	0%
Total	**4,698**	**100%**

Full and Part-time PhDs

	No.	%
General Programmes	6	2%
Education Science	0	0%
Humanities & Arts	57	17%
Social Science, Business & Law	63	18%
Science	130	38%
Engineering, Manufacturing & Construction	78	23%
Agriculture & Veterinary	0	0%
Health & Welfare	0	0%
Services	8	2%
Combined	0	0%
Total	**342**	**100%**

PARTICIPATION

(% of Total Enrolments incl. Flexible Learning)	No.	%
Flexible Learners (PT, Distance, E-Learning, In-Service)	6,275	28%
Participants in Labour Market Activation (Springboard) *(% of National Participation)*	826	19%
Regional Intake *(% of Full-time Enrolments)*		
from the institution's county		62%
from the institution's county and bordering counties		82%

(% of New Entrants)	No.	%
Mature Entrants (Full-time Undergraduate)	761	16%
Estimate: Entrants with Disability (EAS)	406	9%
Estimate: Entrants from Non-Manual, Semi- and Unskilled Socio-economic Backgrounds (EAS)	1,133	24%

INTERNATIONALISATION

International Students (Full-time)	No.	%
(% of Full-time Enrolments)	250	2%
EU	59	24%
Non-EU	191	76%
Erasmus Students Outgoing (excl. work placements)	246	

TEACHING AND LEARNING

Non-Progression Rate from 1st to 2nd Year	%
Level 8	15%
Level 7	N/A
Level 6	N/A

RESEARCH

No. of PhD Graduates per 10 Academic Staff	0.3
PRTLI Funding 2010 (in € 000)	4,273
(latest 5 year cumulative)	
No. of Web of Science Documents per Academic	N/A
Relative Citation Impact (World Average = 1)	N/A

FP7 Income 2007-2010 per Academic Staff	€1,830
IRCSET Funding 2010 per Academic Staff	€234
IRCHSS Funding 2010 per Academic Staff	€142
SFI Funding 2010 per Academic Staff	€987
TSR Funding 2010 per Academic Staff	€906

KNOWLEDGE TRANSFER

(2010/2011 cumulative)	No.
Patent applications - Ireland only	0
Patent applications - all other areas except Ireland	9
Patents granted - Ireland only	0
Patents granted - all other areas except Ireland	0

(2010/2011 cumulative)	No.	%
Licence agreements (institution - private industry)	26	
Spin-out companies created	7	
(FDR 2010)		
Level 8 Graduates in Employment		N/A
Level 9/10 Graduates in Employment		N/A

STAFF

	No.	%
Core Staff	**2,233**	**100%**
Academic Staff	1,325	59%
Support staff	909	41%
Contract Research & Specialist Staff	**200**	**100%**
Academic Staff	39	19%
Support staff	161	81%
Total Staff	**2,433**	**100%**
Total Academic	1,363	56%
Total Support	1,070	44%
Non-Academic/Academic Staff Ratio (Core)	0.7	
Student/Academic Staff Ratio (FTE/Core)	14.5	

Staff Age Profile (Proportion of Staff aged...)	%
20-39	30%
40-54	47%
55 and above	22%

Staff Qualifications (Proportion of...)	%
Full-time Academic Staff with Masters or higher qual.	82%
Full-time Academic Staff with PhD qualification	29%
All Academic Staff with Masters or higher qualification	N/A
All Academic Staff with PhD qualification	N/A

FINANCIAL 2009/10 DATA

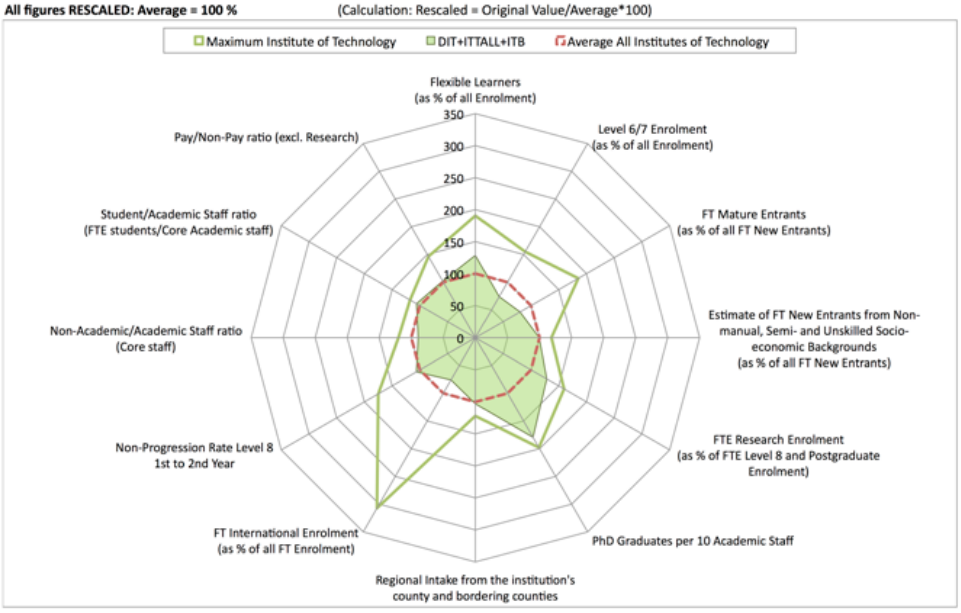
	€ 000	%
Total Income	**250,507**	**100%**
State Grants	123,538	49%
Fees	71,303	28%
Exchequer	25,780	10%
Non-Exchequer	45,523	18%
Research Grants & Contracts	20,072	8%
Other Income	35,594	14%
Total Expenditure	**243,973**	**100%**
Core - Pay	160,816	66%
Core - Non-Pay	60,721	25%
Research Grants & Contracts - Pay	9,627	4%
Research Grants & Contracts - Non-Pay	12,809	5%

Exchequer/Non-Exchequer Fees Ratio	0.6
Pay/Non-Pay Expenditure Ratio (incl. Research)	2.3
Pay/Non-Pay Expenditure Ratio (excl. Research)	2.6

SPACE

	m²
Net Space per FTE Student	N/A
Gross Space per FTE Student	N/A

All figures RESCALED: Average = 100 % (Calculation: Rescaled = Original Value/Average*100)



Appendix 3

Our Approach to change

This submission was prepared collaboratively by the management teams of the three institutes using a combination of facilitated workshops and open space methods to maximise involvement. The process used is depicted in ***Figure 8.*** The student unions and a focus group of industry representatives provided preliminary input.

The preparation is part of the on-going process of engagement and inquiry with stakeholders, as depicted in ***Figure 9***. In creating a vision for TU Dublin, we are mindful that the new university will be shaped by the agendas of these multiple stakeholders, whilst we simultaneously shape theirs. Consequently, our quest is to find common ground amongst all involved, within the context outlined in this submission.

We are also mindful that to truly create a different type of educational institution in Dublin, the process by which it is created must itself be different. Therefore, considerable attention is being paid to the methodologies used, and in particular to involving those likely to be impacted in a meaningful way. Consultation and negotiation with social partners will be an aspect of this. Such involvement, we believe, is the only sustainable means of achieving appropriate change while ensuring that necessary stability is maintained.

Engagement with staff, students, trade unions, enterprise, community groups and others will accelerate in the 2012-13 academic year. This will be undertaken alongside work to scope out the practical steps needed to create a single entity through the convergence of the three institutes. Work on these steps is underway, in accordance with the work-plan outlined in ***Figure 10***.

We recognise the magnitude of the change journey we are embarking on. To the forefront of our minds is recognition that TU Dublin in essence will be a web of interconnected and interdependent relationships. Our locus of attention will be on these relationships throughout and our approach informed by complex responsive processes theory. Widespread use will be made of appreciative inquiry and open space methods, along with a range of others.

Figure 8: Preparation Process - HEA Submission

Figure 9: Stakeholder Engagement – TU Dublin

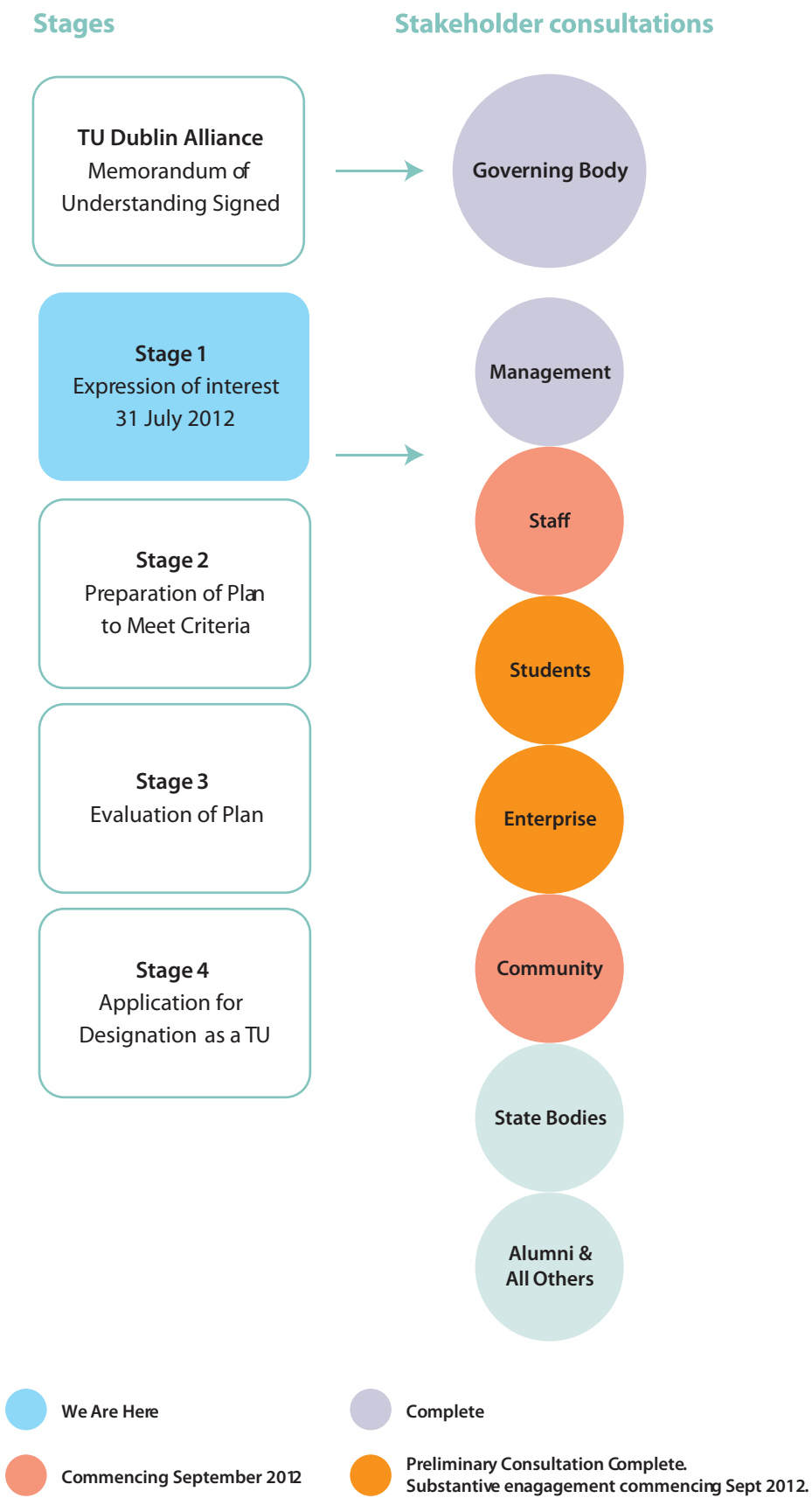
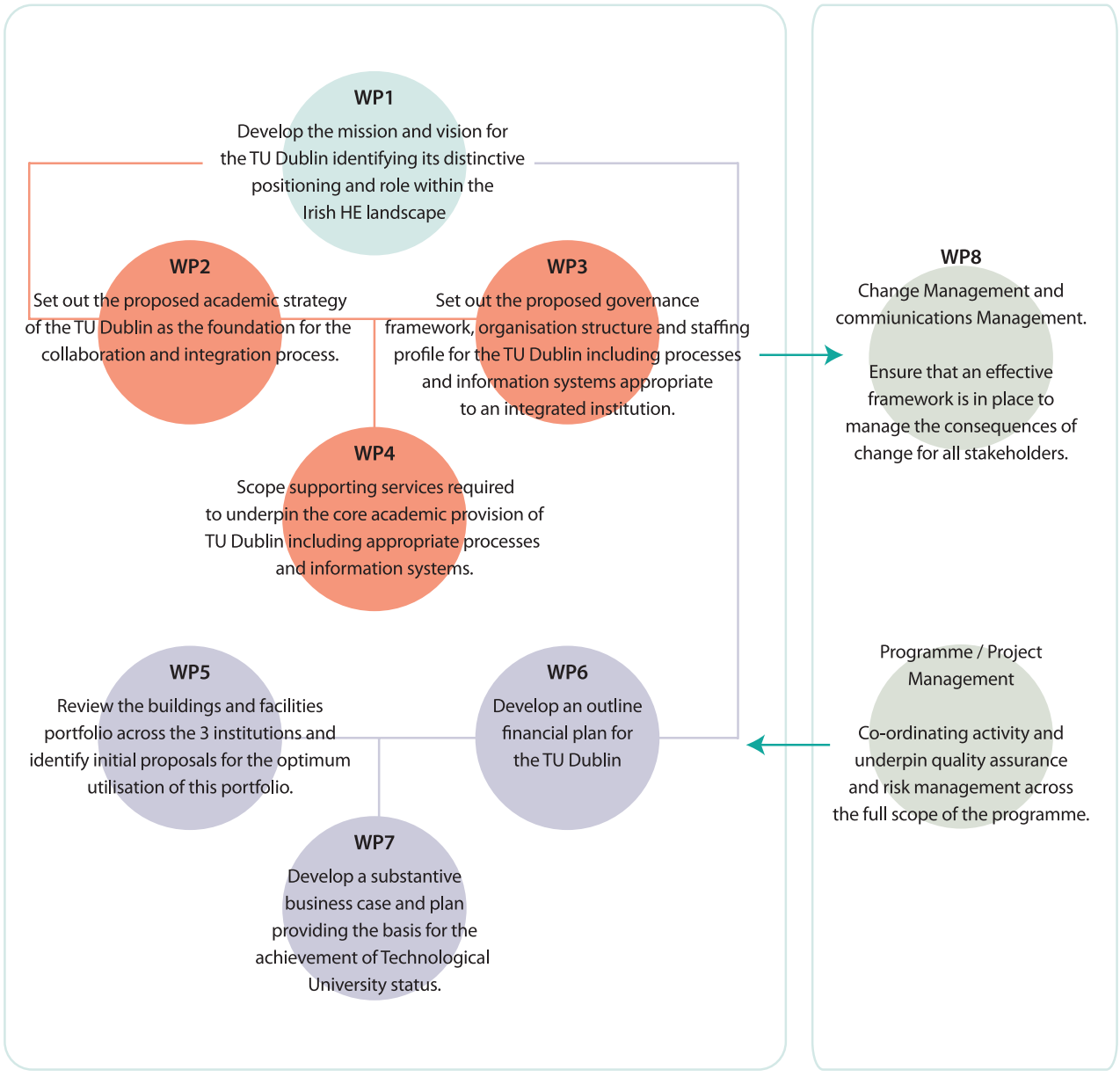


Figure 10: TU Dublin – Outline Work Plan (Phase 1)



Appendix 4

Acronyms and Abbreviations

CPD	Continuing Professional Development
CTVR	Centre for Telecommunications Value-Chain Research
DCC	Dublin City Council
EU	European Union
EUA	European University Association
EU Atlantis	EU-US agreement supporting consortia of higher education to improve their education services
FE	Further Education
FTE	Full Time Equivalent (Normally 50% of the part-time number)
HEIs	Higher Education Institutions
Hothouse	Innovation and Technology Transfer Office at DIT
HR	Human Resources
IAU	International Association of Universities
IBEC	Irish Business and Employers Confederation
ICT	Information and Communications Technology
IP	Intellectual Property
MRSA	Methicillin-resistant Staphylococcus aureus
NAI	National Archives of Ireland
NESF	National Economic and Social Forum
NLI	National Library of Ireland
PRTLI	Programme for Research in Third-Level Institutions
QA	Quality Assurance
RTE	Raidió Teilifís Éireann
SIF	Strategic Innovation Fund
RMIT	Royal Melbourne Institute of Technology
TG4	Irish language television channel
TNI	Tyndall National Institute
TU	Technological University