

TU4Dublin

Application for designation as a technological university

27 April 2018



About this document

This document forms a key part of TU4Dublin's application for designation as a technological university.

- ▶ Chapter 1, **The context for TU4Dublin**, presents the background to TU4Dublin and describes the process for designation.
- ▶ Chapter 2, **An overview of TU4Dublin**, gives more detail about what the proposed university will look like – our vision, mission and values, our governance structures, our approach to teaching and learning, to research, to apprenticeship and skills education, as well as our commitment to engagement and internationalisation.
- ▶ Chapter 3, **The support infrastructure for TU4Dublin** describes elements of TU4Dublin's supporting infrastructure – including key technology, services and strategies that will enable us to deliver on our vision, mission, ambitions and values.
- ▶ Chapter 4, **Meeting the criteria for designation**, outlines how TU4Dublin meets the statutory criteria for designation as a technological university.
- ▶ Chapter 5, **Financial resources and sustainability**, sets out the basis for TU4Dublin's financial viability with how we propose to sustain that into the future.

Ancillary documents

This application is supported by the following ancillary documents:

- ▶ *The Socio-Economic and Cultural Impact of the TU4Dublin* (commissioned from 4-Consulting to meet the requirements of the TU Act 2018)
- ▶ *TU4Dublin Programme Plan* – describes the programmes designed to meet the criteria for designation and contribute to TU4Dublin's strategic initiatives
- ▶ *TU4Dublin Organisation Design Recommendations* (commissioned from PwC)

Contents

1. The context for TU4Dublin	6
1.1 Introducing TU4Dublin.....	6
DIT, ITB and ITT come together	6
TU4Dublin’s role in the greater Dublin region.....	8
International context for TU4Dublin.....	8
Student profile at TU4Dublin	9
Functions of the technological university.....	11
Foundational attributes of the TU4Dublin.....	13
1.2 The process for designation as a technological university	14
Progress towards a unitary technological university.....	14
The Dublin Technological University Alliance (DTUA)	17
Development of the Programme Plan	18
Project governance	19
2. An overview of TU4Dublin	22
2.1 TU4Dublin: who we are	22
TU4Dublin Position	22
TU4Dublin Vision.....	22
TU4Dublin Mission.....	22
TU4Dublin Values.....	23
TU4Dublin Governing Body.....	23
TU4Dublin Academic Council.....	23
TU4Dublin Quality Assurance	25
TU4Dublin Organisational structure	25
2.2 TU4Dublin’s approach to teaching and learning.....	26
The educational philosophy.....	26
Curriculum framework.....	27
Programme provision planning.....	29
2.3 TU4Dublin’s approach to research.....	30
Research principles	30
Research environment.....	31
Research infrastructure	33
Research performance.....	35
Strategy for building sustainability and success	38
2.4 Embedding engagement in everything we do	38
A truly engaged institution	39
Key messages relating to engagement	39
Networking approach	41

Industry and civic engagement	41
Industry engagement.....	41
Civic engagement.....	44
Access / widening participation	45
2.5 TU4Dublin’s approach to apprenticeship and skills education	45
Context.....	45
Commitment to excellence in apprenticeship education.....	46
Meeting the renewed growth in demand for apprenticeship skills	46
From short skills programmes to academic research.....	46
Embedding apprenticeship and skills experiences within TU4Dublin	47
The apprentice student experience	47
Progression and transfer for apprenticeship students	47
‘Earn and learn’ mobility at TU4Dublin.....	47
2.6 TU4Dublin’s quality strategy and processes.....	48
The statutory quality framework for higher education.....	48
Quality assurance principles and processes	48
2.7 TU4Dublin and internationalisation	50
Internationalisation: national context.....	51
Key internationalisation objectives of TU4Dublin	52
3. The support infrastructure of TU4Dublin	54
3.1 TU4Dublin: a digital campus.....	54
TU4Dublin – a digital-first organisation	54
3.2 Student development at TU4Dublin	55
The contribution that student development makes to the student experience.....	55
Student administration services	56
Student welfare services.....	56
Sports, clubs and societies.....	57
Students’ Union	57
Ensuring access for all students.....	57
Giving our first-year students a sense of belonging	57
3.3 Professional services at TU4Dublin.....	58
Information communication and technology services	59
Library services	60
Learning, Teaching and Technology Centre (LTTC).....	60
3.4 TU4Dublin’s People Strategy.....	60
The university of choice for staff	60
Investment in people	62
HR best practice for strategic change	63
3.5 TU4Dublin’s campuses.....	64

Grangegorman campus.....	64
Tallaght campus	65
Blanchardstown campus.....	66
4. Meeting the Criteria of the Technological Universities Act 2018	67
4.1 Student profile criteria.....	67
4.2 Staff profile criteria	68
4.3 Research activity criteria.....	69
4.4 Engagement criteria.....	69
4.5 Governance criteria	70
4.6 Internationalisation criteria	70
5. The financial viability of TU4Dublin	72
5.1 TU4Dublin’s financial resources and sustainability.....	72
TU4Dublin consolidated programmes and budgets 2018	72
TU4Dublin consolidated student number growth	73
TU4Dublin consolidated staff numbers	73
TU4Dublin consolidated financial summary	74
TU4Dublin consolidated capital expenditure budget 2018	75
5.2 TU4Dublin programme of work: financial overview	75
5.3 TU4Dublin financial projections: assumptions and constraints	77

1. The context for TU4Dublin

Chapter overview

This chapter places TU4Dublin's application for designation as a technological university in its educational, historical and regional context. It includes:

▶ 1.1 Introducing TU4Dublin

- Where it came from and how the three constituent institutes have come together
- International context for the proposed technological university
- Profile of the students who will attend
- Brief overview of the functions of a technological university as specified in the Technological Universities Act 2018
- Summary of the foundational attributes that will define the mission, ethos and culture of the proposed technological university

▶ 1.2 Process for designation as a technological university

- Stages set out by the Higher Education Authority for designation
- Progress of the phases through which the three constituent institutes have come together
- Governance of the process
- Staff and student engagement that will underpin the success of the project.

1.1 Introducing TU4Dublin

The role that higher education has played in the development of Ireland, in all areas of our social, economic and cultural life, cannot be overstated. Especially since 1966, with the introduction of free second-level education, participation and attainment in higher education have grown very steadily – to the point that today Ireland enjoys one of the highest levels of participation in higher education in the OECD, in the same cohort as Canada, Japan and Korea.

National policy in relation to higher education is set out in the *National Strategy for Higher Education to 2030*, which identifies several strategic objectives including:

- ▶ To maintain (and increase) our high levels of participation in higher education
- ▶ To promote equality of access and lifelong learning
- ▶ To enhance teaching and learning and the quality of the student experience
- ▶ To maintain and further develop high-quality research and innovation
- ▶ To enhance engagement with industry and the wider community
- ▶ To promote a greater sense of internationalisation within higher education

The *National Strategy* includes a recommendation that institutes of technology might apply as consortia for designation as a *technological university*.

The technological university was to have a 'distinct mission and character' that would offer innovative pathways for new and existing learners. It could enable higher education, through globally significant research and innovation, to support enhanced competitiveness.

DIT, ITB and ITT come together

For many decades now, Dublin Institute of Technology (DIT), Institute of Technology Blanchardstown (ITB) and Institute of Technology Tallaght (ITT) have been a very significant part of the growth of Irish higher education and have made a substantial contribution from Level 6 programmes right up to PhD level. This was the context within which the three institutes came together and signed a memorandum of understanding establishing the Dublin Technological University Alliance (DTUA,

now the TU4Dublin Alliance). Their goal was to create a technological university that could deliver a broad range of higher education provision across a breadth of disciplines for the greater Dublin region and beyond. TU4Dublin's ambition is to be Ireland's leading practice-based and research-informed university, offering pathways from apprenticeship to PhD level, and providing an environment of academic excellence for staff and career-focused students.

Graduates of the technological university will develop attributes that prepare them for life and for fulfilling careers in a rapidly changing knowledge economy. A modern, vibrant university will provide cohesive and differentiated technological education in Dublin, deeply embedded in the economic, civic, social, creative and cultural life of the city region. Combining the collective experiences, capabilities, passion and resources of the three partner institutions, student-centred learning environments will be developed on three fully serviced physical campuses as well as through the TU4Dublin digital campus.

TU4Dublin intends to be a key provider of apprentice education across National Framework of Qualifications (NFQ) levels 6 -10, supporting ladders of opportunity for a new generation of students.

The creation of TU4Dublin will be one of the most exciting and important landmarks in Irish higher education in decades. The TU4Dublin Alliance has already invested substantial time, thinking, effort and resources into its development. It is committed to building a new type of university to serve the future generations of Dublin and Ireland.

About Dublin Institute of Technology

Dublin Institute of Technology has been an integral part of the Irish higher education system for 30 years. With autonomous degree-awarding authority up to and including 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 over 20,000 students, DIT has commenced its relocation to a single 73 acre campus at Grangegorman, in Dublin's north inner city. In September 2014 the first 1,200 students moved into the new campus, and that number will rise to 10,000 over the next two to three years. Strong industry engagement is reflected in DIT's successful technology transfer and enterprise creation, as well as in its strong research base. Over the past eleven years, DIT has helped to create more than 400 sustainable businesses which have raised over €200 million in equity investment and created 1,700 quality jobs.

About Institute of Technology Blanchardstown

The Institute of Technology Blanchardstown (ITB) has been pursuing its mission of making education accessible to a diversity of learners since its establishment in 1999. Its purpose built campus, spanning over 56 acres located within a busy industrial commercial setting, has allowed ITB to build an excellent reputation for engagement with industry and the professions, ensuring that graduates are prepared for the workplace of today and the future.

ITB has nearly 3,500 students studying in full-time, part-time and online mode. ITB has a deep commitment to widening participation in education and serving the needs of the people of Dublin and beyond. ITB has supported over 150 early stage start-ups, almost 100 companies through business acceleration and a further 90 companies through business incubation since 2010.

About Institute of Technology Tallaght

The Institute of Technology Tallaght (ITT) was established in 1992 and now caters for a student population of 6,014 students, of which 3,034 are full-time students and 2,980 are studying part-time. It is among the top three HEIs in Ireland in *Lifelong Learning* and the top three in the Institute of Technology sector for *Research*. The Institute is the only HEI in South Dublin and the majority of its students come from the local area: 76 per cent of students come from the immediate Dublin City and county regions and 90 per cent from the greater Dublin Area. The Institute's mission is to be the centre of higher education and knowledge creation within South Dublin County. It aims to broaden participation in higher education, to support research and commercial innovation, and to advance the economic, social and cultural life of the region.

TU4Dublin's role in the greater Dublin region

The greater Dublin region is the engine for Ireland's economy being currently the country's only internationally competitive large-scale city region. The region's population of over 1.8 million people is projected to rise to 2.1 million by 2020. Dublin generates 48 per cent of Ireland's national GDP with almost 30 per cent of the workforce. It has attracted 47 per cent of Ireland's foreign direct investment (FDI) projects and is home to 9 of the 10 largest global ICT companies that account for 86 per cent of the total FDI in the financial services sector in Ireland. It attracts almost 4 million visitors annually, generating revenues of over €1 billion. Dublin accounts for 57 per cent of the total number of international students studying in Ireland.

A new technological university will have a key role to play in ensuring that Dublin continues to have a diverse and skilled labour force as well as the intellectual capital, knowledge base and entrepreneurial foundation to ensure its economic, social and cultural well-being.

International context for TU4Dublin

The new technological university in Dublin will join a broad, but well established, set of technological universities internationally. Technological Universities (exemplified by the TU's in Germany, Austria and the Netherlands) are autonomous degree awarding universities. The designation is adopted by a set of broadly-based larger universities that are focused on bringing together theory, context and practice in the application of knowledge. Their education and research activities often cross traditional academic disciplinary domains and they are characterised by a clear goal of underpinning economic, technical, social and cultural development. Consequentially, many technological universities are leading providers of education and research in different areas of business, humanities, social sciences and the arts, as well as in engineering, technology and science. Many go even further, for example, three of the 'technological' universities in Germany also provide medical education. This breadth of scope is particularly marked in the 'land grant' universities of the USA. These were founded with an overtly technological mission and an initial focus on agriculture and very broadly related subjects, but in many cases now offer comprehensive coverage of the majority of academic disciplines.

The number of technological universities in a country can vary considerably. About 300,000 students study in Germany's seventeen technological universities, while in Australia and New Zealand there are over 200,000 students in eight technological universities.

Scope and character of technological universities

Each technological university has developed a distinctive scope and character moulded by national policy, circumstances and opportunities. Internationally the boundaries between different kinds of university have been quite fluid, with many institutions combining the attributes of both traditional and technological universities. This is the case in the University of Aveiro in Portugal and in both the

University of Oulu and the Åbo Akademi University in Finland. Finland also has avowedly technological institutions in Lappeenranta University of Technology and Tampere University of Technology. In many countries there are technological universities that see no necessity to include the words ‘technological’ or ‘of technology’ in their titles. As examples, Aalto University in Finland, the University of Canberra and the University of South Australia in Australia and Ryerson University in Toronto, Canada are all ‘technological universities’ as we would understand the term.

A technological university does, however, differ from a ‘university of applied sciences’ which is the term used (in English) to describe the *Fachhochschule* in Germany and Austria, the *Ammattikorkeakoulu* in Finland and the *Hogeschool* in the Netherlands. Interestingly, many such universities do not focus exclusively on technology, and some have no provision at all in pure sciences, but do offer courses in social sciences, health, business and design. These institutions generally make awards only up to master’s level. They often have applied research capabilities that are devoted solely to particular industry sectors.

International outlook of technological universities

Successful technological universities purposely have an international outlook that informs their curricula. So, in addition to placement in industry, professions and the community, students in technological universities also benefit from periods of study in other countries. They are particularly well placed to avail of opportunities for further student exchanges that may arise in the near future. One such initiative was referenced by President Macron of France recently when he suggested that ‘by 2024, half of students in a given age group should have spent at least six months in another European country by the time they are 25’.¹ This initiative will be led by a network of 20 European universities with programmes that propose to have all of their students studying abroad and taking classes in at least two languages. This is one example of a challenge that Technological Universities can rise to as they continue to drive educational innovation in the quest for practical excellence.

Student profile at TU4Dublin (2018)

Students at TU4Dublin will cover the spectrum from Level 6 to Level 10 of the National Framework of Qualifications, and beyond. The following tables present information on students by NFQ and award type and by discipline for first-years students; by the disciplines of doctoral students; and by participation rates and numbers of flexible learners, mature entrants and students with disabilities.

TABLE 1.1: STUDENT PROFILE BY NFQ AND AWARD TYPE

NFQ Level	Award type	Full-time	Part-time	Total
Level 6	FETAC advanced certificate (apprentices)	0	950	950
Level 6	Higher certificate	974	980	1954
Level 7	Ordinary degree	3,750	1173	4,923
Level 8	Undergraduate honours degree	13,070	1083	14,153
Level 8	Higher diploma	14	89	103
Level 9	Master’s (taught)	634	1,249	1,883
Level 9	Master’s (research)	73	55	128
Level 10	PhD postgraduate	370	185	555
–	Other undergraduate: <i>certificate, diploma, foundation occasional, training</i>	171	2,546	2,717
–	Other postgraduate: <i>certificate, diploma, occasional, training</i>	81	706	787
		19,137	9,016	28,153

¹ From a speech delivered at the Sorbonne on 26 September 2017

TABLE 1.2: FIRST YEAR FULL-TIME UNDERGRADUATE NEW ENTRANTS BY DISCIPLINE

Discipline	Number	Per cent
General Programmes and Qualifications	62	1%
Education	34	1%
Arts and Humanities	728	14%
Social Science, Journalism and Information	92	2%
Business, Administration and Law	1,167	23%
Natural Sciences, Mathematics and Statistics	405	8%
Information and Communication Technologies (ICT)	499	10%
Engineering, Manufacturing and Construction	999	20%
Agriculture, Forestry, Fisheries and Veterinary	8	0%
Health and Welfare	463	9%
Services	571	11%
Total	5,028	100%

TABLE 1.3: DOCTORATE STUDENTS (ALL MODES)

Discipline	Number	Per cent
General Programmes and Qualifications	0	0%
Education	0	0%
Arts and Humanities	109	20%
Social Science, Journalism and Information	19	3%
Business, Administration and Law	93	17%
Natural Sciences, Mathematics and Statistics	180	32%
Information and Communication Technologies (ICT)	34	6%
Engineering, Manufacturing and Construction	120	22%
Agriculture, Forestry, Fisheries and Veterinary	0	0%
Health and Welfare	0	0%
Services	0	0%
Total	555	100%

TABLE 1.4: PARTICIPATION: FLEXIBLE LEARNERS, MATURE ENTRANTS, STUDENTS WITH DISABILITIES

	Number	% of total enrolments
Flexible learners (part-time, distance learning, e-learning, in-service)	8,066	30%
	Number	% of new entrants
Mature entrants year 1 (full-time undergraduate)	510	10%
Mature entrants year 2+ (full-time undergraduate)	2	20%
New entrants in receipt of any grant	2,266	45%
<i>Regional intake</i>		
From the institution's county	9,586	50%
From the institution's county and bordering counties	12,715	66%
Participants in Labour Market Activation (Springboard/LMA)	862	5%
	Number	% of full-time undergraduate and postgraduate enrolments
Students in receipt of the Fund for Students with Disabilities	1,170	6%

TABLE 1.5: INTERNATIONAL STUDENTS, FULL-TIME AND PART-TIME

	Number	% of enrolments
International students (full-time)		(of full-time enrolments)
EU	185	1%
Non-EU	1,086	6%
International students (part-time)		(of part-time enrolments)
EU	63	1%
Non-EU	65	1%

NOTE: international enrolments exclude exchange students

TABLE 1.6: ERASMUS AND EXCHANGE STUDENTS

	Number
Erasmus Students Incoming (excl. work placements)	492
Erasmus Students Outgoing (excl. work placements)	420
Other Exchange Students Incoming	55
Other Exchange Students Outgoing	233

Functions of the technological university

Section 9 of the Technological Universities Act 2018 sets out the functions of the technological university. In summary, the Act covers all areas of teaching and learning, research, enterprise, community engagement, development of a skilled labour force, promotion of access, and (of course) the awarding of degrees and other qualifications. Particular emphasis is placed on how the technological university must meet its obligations to its local regions – by providing teaching and

facilitating learning that are informed by research, and also by providing opportunities for students to pursue programmes across the range of NFQ levels.

Contributing to the social, civic and economic life of Dublin

The three amalgamating institutions (DIT, ITB and ITT) have a long history of engagement and partnership with many constituencies in the community, in business and enterprise, in the professions and with many other stakeholders across the greater Dublin region. These links will be maintained and strengthened by the technological university, which will contribute directly and indirectly through its students and graduates, to furthering the social, civic and economic life of Dublin in innovative and interesting ways.

The technological university will be required to support entrepreneurship, enterprise development and innovation in both business enterprise and in the professions – through its teaching and research, and also through effective knowledge transfer to those and other sectors.

The technological university will collaborate regionally with business, enterprise, the professions and related stakeholders in the design and delivery of programmes of education and training, and to ensure that, as far as possible, innovation activity and research undertaken by the technological university reflect the needs of those stakeholders.

See also

The Socio-Economic and Cultural Impact of TU4Dublin, commissioned from 4-Consulting (included as ancillary document as part of this application)

Developing a skilled labour force

The technological university will continue the work of the three amalgamating institutes in emphasising the development of a skilled labour force as one of its key functions. Specifically, this means a continued commitment to continuing education and apprenticeship education as well as to providing flexible means to support mobility for staff and students into and out of the labour force – for example, through collaboration with business, enterprise, the professions and related stakeholders.

Working for regional development

The technological university will work to establish and maintain close and effective relationships with statutory regional development agencies and with the four local authorities in the greater Dublin region. It will also foster close relations with local Educational and Training Boards and with providers of further education and training.

International opportunities for staff and students

The Technological Universities Act 2018 requires the technological university to provide opportunities for staff and students through programmes delivered through a variety of teaching and learning partnerships as well as through attendance on programmes delivered outside the State. The technological university is specifically charged to collaborate in research with institutions that provide higher education inside and outside the State, in areas of joint research projects and in the provision of programmes of education and training.

Engagement with wider society

Aside from requirements that address socioeconomic needs, the technological university must also serve the needs of the wider society by respecting the diversity of values, beliefs and traditions in Ireland. It will promote critical and free enquiry, informed intellectual discourse and public debate.

It will promote an entrepreneurial ethos and provide accessible opportunities to those who are economically or socially disadvantaged, irrespective of whether that disadvantage has disability, economic or socio-cultural causes.

Academic provision

In its academic provision, the technological university will provide (either directly or in collaboration with other providers) programmes of education and training for all NFQ levels, including technological and professional education. It will provide facilities for research across the range of academic disciplines. The technological university will also promote the attainment of gender balance and inclusive equality of opportunity among students and staff, and will seek to optimise its expertise and resources.

Foundational attributes of the TU4Dublin

The TU4Dublin will be established with a set of foundational institutional attributes that embody its mission, ethos and culture. Through each of these attributes it will be recognisable as an innovative, entrepreneurial, practice-led, research and development-informed university committed to making a real difference both to Dublin and Ireland.

TABLE 1.7: FOUNDATIONAL ATTRIBUTES OF TU4DUBLIN

Attribute	Description
Emphasis on practice	The emphasis of the technological university student experience is on practice, with a range of opportunities in the curriculum to apply knowledge gained, including: problem-based learning, active citizenship, work-placement opportunities, project work, action learning, community-based learning, research, and the input from and engagement with contemporary practitioners.
Delivery of an enriching experience	The technological university will support the development of a new type of graduate with the following attributes: active civic engagement and social responsibility, and entrepreneurial competencies coupled with the ability to apply creative ideas/innovations and to find practical solutions. It will support a spirit of curiosity in the active creation of new knowledge. Finally, it will support graduates to become highly skilled in their chosen field, and to be effective communicators and leaders who can make positive contributions to contemporary disciplinary and professional practices.
Flexibility in learning provision	The technological university will foster a diverse student population, promoting blended learning offerings that extend its reach to those seeking flexible learning provision, while at the same time enhancing the complete learning experience for all of its students. In order to achieve this, the three physical campuses of the technological university will be complemented by a digital campus that will enrich both academic and support services.
Part of the life of Dublin, with a global reach	The technological university will be deeply embedded in the civic, social, economic and cultural life of the Dublin region. From this it will reach out globally and ensure a truly international perspective is provided to all students. Existing global academic and business networks, links with multinational companies, and initiatives that support international projects and partnerships will be key features of the technological university.
Development of intellectual capital	Based on a strong, established and successful record in knowledge transfer, particularly with respect to licensing of technology and enterprise creation, these successes will continue to strengthen its research capacity as a technological university, and will ensure that it continues to play its full part in contributing to the intellectual capital of the region. In the first phase of development at the Grangegorman campus, both research and incubation facilities accommodate environmental sustainability and health research activity and enterprise support for new business start-ups. In Tallaght

	and Blanchardstown, activities in the Synergy and LINC centres support regional development and innovation in partnership with regional enterprises.
Recognition of excellence	The technological university will develop an equitable and flexible workload model centred on areas of individual expertise and interest. It will recognise excellence in areas such as teaching and learning, research and innovation, and engagement.
Effectiveness in administration	As a fully integrated unitary institution, the technological university will achieve efficient and effective use of its resources through critical mass and shared services under single lines of responsibility. The administration of the university will be entrepreneurial, sustainable, imaginative and innovative, in seeking to increase income diversity and optimisation of resources.

1.2 The process for designation as a technological university

The Higher Education Authority established the process for seeking designation as a technological university as a process with the following four stages, each of which had associated criteria:

- Stage 1** **An expression of interest** – to be considered by the HEA in the context of a system wide analysis of Ireland’s higher education needs and the strategic implications arising from the establishment of a new university
- Stage 2** **The preparation of a plan to meet the criteria for designation** – based on a legally binding memorandum of understanding between the consortium members
- Stage 3** **Evaluation of the plan by an expert panel** – with regard to the capacity and existing position of the proposed consortium in relation to the criteria for designation
- Stage 4** **An application for designation** – to be evaluated by an expert panel who will report their recommendation to the HEA, which having considered the report will advise the Minister for Education and Skills

Progress towards a unitary technological university

The process of transforming DIT, ITB, and ITT from three separate and autonomous institutes into a unitary technological university has been in progress since 2011:

- ▶ **The Dublin Technological University Alliance Project (DTUA)** was managed by an Implementation Team which operated from 2013 until Q2, 2016. The work of DTUA concluded with the publication in January 2017 of the *Dublin Technological University Alliance Progress Report*.
- ▶ **The Technological University for Dublin Programme Team** has been operating from Q4, 2016 to the present day, under the guidance of the TU4Dublin Joint Governing Body Strategy Steering Group. The major focus of the Programme Team has been the development of the *TU4Dublin Programme Plan* (included as an ancillary document with this application).

TABLE 1.8 SUMMARY OF MILESTONES IN THE DEVELOPMENT OF TU4DUBLIN

Date	Milestone
December 2010/ January 2011	Governing Bodies consider the vision document <i>A New University for a New Ireland</i> .
January 2011	Senior teams attend Building a Technological University Seminar at the National Convention Centre.
January 2011	Publication of <i>National Strategy for Higher Education to 2030</i> by the Department of Education & Skills.
October 2011	Memorandum of Understanding is signed establishing the TU4Dublin Alliance.
November 2011	Higher Education Authority initiates consultation process for Technological University designation.
February 2012	Higher Education Authority publishes its <i>landscape document</i> for initiation of reform in Irish higher education.
July 2012	TU4Dublin Alliance makes submission to the Higher Education Authority in response to the <i>landscape document</i> .
December 2012	A high level TU Steering Group is established to guide Alliance partners towards the goal of designation as a technological university.
January 2013	Alliance forms the core of the Dublin Region Innovation Consortium funded by Enterprise Ireland.
April 2013	Higher Education Authority publishes its <i>Report on system reconfiguration</i> in which approval is granted for the Alliance to proceed to Stage 2 of a HEA process toward TU designation.
September 2013	Alliance commissions Baker Tilly Ryan Glennon to facilitate a rigorous planning process informed by inputs drawn from a wide variety of stakeholders.
Late 2013/Early 2014	An Implementation Team drawn from across the Alliance partners is established. The Team launch a number of Foundation Themes through which the Alliance can prepare and organise people, work and institutional transformation required for designation.
Late 2013/Early 2014	A series of workshops brings students, educators and leadership from across the Alliance partners together for the first time
March 2014	A joint meeting of the Governing Bodies and Senior Teams is held in Dún Laoghaire.
March 2014	A Student Union Forum is held – Putting Students at the Centre of the new technological universities.
April 2014	Completion and sign-off by the three Governing Bodies of the outline Implementation Plan for the creation of a new university
April 2014	Alliance submits the Implementation Plan to the Higher Education Authority, successfully completing Stage 2 in the process.

September 2014	An expert international panel convenes to assess the Implementation Plan. The panel submits its report which states that the Implementation Plan is a 'credible and realisable proposal'. The Minister for Education & Skills welcomes the report and the Alliance successfully moves from Stage 3 to Stage 4 in the process.
February 2015	The Joint TU Graduate Research School is formally established.
October 2015	Funding of €2 million is allocated to assist in the development of technological universities.
December 2015	Technological Universities Bill first stage presented to the Dáil.
December 2015	A plenary session of the TU Steering Group and Implementation Team is held.
February 2017	A joint IMPACT Symposium on Mergers in Higher Education (Denmark and Ireland) is held.
March 2017	Minister for Education & Skills, Mr Richard Bruton TD, and the Minister of State for Higher Education, Mary Mitchell O'Connor TD, announce their intention to prioritise the passing of the TU Bill following Government approval to the drafting of insertions and amendments to the 2015 Bill.
March 2017	Minister for Education & Skills, Mr Richard Bruton TD, and the Minister of State for Higher Education, Mary Mitchell O'Connor TD, announce €110 million investment from the EIB to assist with the development of DIT's new campus at Grangeegorman.
April 2017	Technological Higher Education Association (THEA) is launched by the Minister for Education Mr Richard Bruton, TD.
May 2017	TUI agreement with THEA and DOES.
May 2017	A joint Governing Body and Senior Leadership Team Strategy Day takes place at the Guinness Storehouse.
July 2017	Minister of State for Higher Education, Mary Mitchell O'Connor TD, meets with the Steering Group.
October 2017	Minister for Education & Skills, Mr Richard Bruton TD, and the Minister of State for Higher Education, Mary Mitchell O'Connor TD, announce capital investment in Alliance partners ITB and ITT.
December 2017	Students, staff and members of the Governing Bodies across alliance partners are invited to participate in the naming of the new university.
February 2018	TU Academic Steering Board and TU Professional Services Steering Board are established.
March 2018	President Michael D. Higgins signs into law the Technological Universities Act 2018.
April 2018	Alliance partner student unions attend the 2018 USI Congress as a single delegation and win 5 awards.
April 2018	Minister of State for Higher Education, Mary Mitchell O'Connor hosts information summit on Technological University application process.

The Dublin Technological University Alliance (DTUA)

In July 2012 DTUA submitted to the HEA an expression of interest in achieving designation as a technological university. The HEA accepted that expression of interest.

This was followed by a period of intensive planning and consultation (between October 2013 and January 2014) facilitated by Baker Tilly Ryan Glennon. A total of sixteen workstreams were established under four broad categories, Governance, Academic, People, and Professional Services. Over 400 staff members across the three institutions participated in and contributed to the workstreams, and the output from this work was published in a series of workstream reports.

The Implementation Plan

The Steering Group then set up an Implementation Team, comprising representatives from the three institutions, with an initial brief to refine the extensive range of activities identified in the planning and consultation process into a coherent plan of key initiatives to support the TU4Dublin application for designation as a technological university. The Implementation Team prepared the *TU4Dublin Implementation Plan* as the Stage 2 submission to the HEA.

In September 2014 an international panel assessed the *Implementation Plan* and in December 2014 it confirmed that the plan represented a credible and realisable proposal. Success at this stage meant that TU4Dublin was then in a position to continue on its path to meet the criteria for successful designation as a technological university.

TABLE 1.9: FOUNDATION THEMES OF TU4DUBLIN

Foundation themes	
<p>In parallel with the development of the <i>Implementation Plan</i>, the Implementation Team also identified a set of foundation themes. These are based on three underlying and unifying objectives that draw on the findings of the workstream reports to address the criteria for designation as a technological university.</p> <ul style="list-style-type: none"> ▶ That TU4Dublin would accentuate the student experience through the provision of increased access pathways to higher education ▶ That in TU4Dublin, the learners’ personal and professional development would enable society and the economy to benefit mutually from such personal and professional endeavour ▶ That TU4Dublin would create new knowledge which would enhance the quality and cohesion of society <p>Staff members from all three institutions and across all grades participated in the development of the foundation themes. Furthermore, all managers participated in the organisational design process, as well as participating in pedagogical initiatives, merger and systems planning, and governance planning.</p> <p>Staff participated in the formulation of policy and in the processes associated with civic, social, technological and industrial/commercial engagement. Some members of staff were involved in the design and development of curricular work for the technological university; others were drawn to involvement and participation in specific work associated with sports, student affairs, internationalisation, and research.</p>	
<p>Primary foundation themes</p> <ul style="list-style-type: none"> ▶ Re-imagining our curriculum ▶ The digital campus ▶ Strengthening our research ▶ The enterprising university ▶ Dublin’s globally engaged university 	<p>Cross-functional foundation themes</p> <ul style="list-style-type: none"> ▶ Designing our workplace ▶ Getting our people ready ▶ Converging for designation ▶ Connecting through dialogue

Development of the Programme Plan

As the legislation supporting technological universities changed from an emphasis on evidence of performance as a merged institution to an emphasis on the capacity of a consortium to behave as a technological university, so too did the requirement to produce an appropriately aligned programme plan.

The programme plan is:

- ▶ aligned with the Technological Universities Act (2018)
- ▶ aligned with the strategic goals of each of the three institutes
- ▶ populated with content that was co-created by participants at varying levels across the three institutes
- ▶ built on the outputs from the former phase of the programme with newly emergent information
- ▶ a working document that is updated as new information emerges
- ▶ focused on results evidenced by outcomes

See also

The *TU4Dublin Programme Plan* (included as ancillary document as part of this application)

Outcome from Stage 3 and recommendations from the Expert Panel

Stage 3 of the four-stage designation process involved evaluation of the proposed application for designation by an Expert Panel in September 2014, the Panel issued its report, in which it reported positively on the evaluation:

'The panel is of the opinion that the TU4Dublin proposal is likely to meet the criteria for designation as a technological university within the proposed timeframe, subject to the considerations listed below.'

The 'considerations' covered Mission; Institutional Profile; Student Profile; Staff Profile; Teaching, Learning and Curriculum Development; Research; International Profile; Leadership, Management and Governance; and Financial considerations. The Expert Panel identified some of the strengths of the proposal and some of the challenges that it would face.

TABLE 1.10: EXTRACT FROM EXPERT PANEL'S OPINION ON THE SUBMISSION

The Expert Panel's opinion on the submission

- ▶ *We commend the substantial work already done and ongoing, and the evident commitment of the partners. The work involved is demanding, requires considerable leadership and diplomatic skill, and inevitably adds greatly to the burden carried by senior leaders. These challenges should never be underestimated.*
- ▶ *In our opinion, the proposal is well thought through. The senior leaders have a good grasp of the issues, are engaging with them thoughtfully and imaginatively, and demonstrate a high degree of commitment.*
- ▶ *They are also very clear where the main challenges lie*
- ▶ *The leaders appear to be working together very effectively. Their presentation to us was impressive in the way that successive interventions moved the discussion forward constructively and seamlessly.*
- ▶ *They have settled the critical issue of leadership for the duration of the merger process; have done a commendable amount of preparatory work; and have begun in many areas to 'act as one' already.*
- ▶ *A strong momentum has been established. They are driving forward without waiting for the legislation, even though the inevitable uncertainty that will remain until the legislation emerges in final form represents a risk to them.*

Challenges identified by the Expert Panel	How these challenges are addressed in this application
▶ How well the existing staff profile meets the needs of a future internationally regarded TU, and how the necessary transition is managed.	See 4.2 Staff profile criteria on page 68.
▶ Further developing the mission statement.	See TU4Dublin’s mission on page 22.
▶ Crystallising the organisational design.	See Organisational Structure on page 25 and also the ancillary document <i>TU4Dublin Transformation Programme Organisation Design Recommendations</i> .
▶ The possibility that, in practice, income streams can’t be diversified as quickly as current projections imply, especially if the economy doesn’t grow fast enough.	See chapter 5, The financial viability of TU4Dublin , from page 72.

Project governance

The Governing Body of TU4Dublin will have decision-making authority and oversight of the new technological university. As this body is not yet in existence, the Joint Governing Body Strategy Steering Group, which consists of representatives from each of the three autonomous existing governing bodies, is overseeing and gathering the recommendations from the Project Designation phase to form the current application to the HEA for designation as a technological university.

The Joint Governing Body Strategy Steering Group have been tasked with the ultimate oversight and approval role of Project Designation in the revised Governance Framework. Upon designation, the recommendations gathered by the Joint Governing Body Strategy Steering Group will be presented to the new Governing Body of the Technological University.

Within this governance framework, project recommendations were made to the Joint Governing Body Strategy Group by a number of groups – the Presidents Group (comprising the presidents of the three institutes), the TU4Dublin Programme Team, the Academic Steering Board, the Professional Services Steering Board, as well as from existing governance structures in colleges, schools, departments, and functional units of the three institutes.

The Academic Steering Board and Professional Steering Board were added to the new Governance Framework to support the flow of information within the existing governance structures of each institute. The role of these boards is to review content from the existing project teams, to initiate new projects, to cycle content through the appropriate governance structures of each institute (via engagement protocols), and subsequently to propose content to the Joint Governing Body Strategy Steering Group for the application to the HEA for designation as a technological university.

TABLE 1.11: GOVERNANCE BODIES AND THEIR RESPONSIBILITIES

Body	Summary of responsibilities
Post-designation Technological University Governing Body	▶ Decision-making authority of new technological university
DIT, ITB and ITT Governing Bodies	▶ Decision-making authority of current institutes
Joint Governing Body Strategy Steering Group	<ul style="list-style-type: none"> ▶ Oversight of application for designation as a technological university ▶ Oversight of selection of president designate (following an international competition)
Presidents' Group	<ul style="list-style-type: none"> ▶ Executive recommendations ▶ Resource management ▶ Devolved recommendations
Academic Steering Board	<ul style="list-style-type: none"> ▶ Academic organisation design ▶ Academic policy ▶ Programme provision ▶ QA policies and procedures ▶ Enhanced student experience ▶ Communication and engagement protocols for consultation with all staff in each institute
DIT, ITB and ITT Academic Councils	▶ Management of academic affairs and QA/QE
Professional Services Steering Board	<ul style="list-style-type: none"> ▶ Professional services organisation design ▶ Professional services policies and procedures ▶ Enhanced student experience ▶ Communication and engagement protocols for consultation with all staff in each institute
TU4Dublin Programme Team	▶ Technological university programme development, management and facilitation
TU4D Programme / TUI Local Academic IR Forum/National Negotiation Forum (Teachers' Union of Ireland)	<ul style="list-style-type: none"> ▶ To consult/negotiate on industrial relations issues arising during the TU4Dublin process including: <ul style="list-style-type: none"> – Industrial relations matters and the resolution of interpretation and implementation difficulties arising from the process – Principles governing and claims related to the recruitment, promotion and grading of serving staff represented by the TUI that are specifically affected by the process – Any subject, which all parties agree is appropriate for discussion.
TU4D Programme / Professional Management, Services and Support Staff (Fórsa, SIPTU, UNITE, INMO) Local IR Forum/NNF	<ul style="list-style-type: none"> ▶ To consult/negotiate on industrial relations issues arising during the TU4Dublin process including: <ul style="list-style-type: none"> – Industrial relations matters and the resolution of interpretation and implementation difficulties arising from the process

- Principles governing and claims relating to salaries, allowances, expenses and other emoluments of serving staff that are specifically affected by the process
- Principles governing and claims relating to the express terms and conditions of employment of serving staff affected by the process
- Principles governing and claims related to the recruitment, promotion and grading of serving staff represented that are specifically affected by the process
- Any subject, which all parties agree, is appropriate for discussion at the Forum.

2. An overview of TU4Dublin

Chapter overview

This chapter presents a broad overview of what TU4Dublin will look like.

- ▶ **2.1 TU4Dublin: who we are**
 - Our vision, mission and values
 - Our Governing Body, Academic Council, and our governance and quality management
- ▶ **2.2 TU4Dublin’s approach to teaching and learning** – including:
 - TU4Dublin’s educational philosophy
 - The Curriculum Framework
 - Programme provision
 - Quality assurance strategy and processes
- ▶ **2.3 TU4Dublin’s approach to research** – including:
 - Research principles
 - Research activities and performance
 - Research areas and organisation
 - Research environment
 - Strategy for research sustainability and access
- ▶ **2.4 Engagement with the region and beyond** – describes how TU4Dublin will engage with stakeholders across all areas of society
- ▶ **2.5 TU4Dublin’s approach to apprenticeship and skills education** – describes TU4Dublin’s approach to apprenticeship and skills education and how it works to meet national skills targets.
- ▶ **2.6 TU4Dublin’s quality strategy and processes** – describes the statutory framework for quality in higher education in Ireland; and summarises the QA principles and processes that will govern TU4Dublin
- ▶ **2.7 TU4Dublin’s internationalisation strategy** – sets out the role of internationalisation in Irish higher education and describes TU4Dublin’s key internationalisation objectives

2.1 TU4Dublin: who we are

Position

Dublin’s Technological University is a vibrant academic network that spans Ireland’s globally connected capital and provides transformative educational experiences across the region. It is the leading practice-based, research-informed University in Ireland with relevant learning pathways from apprenticeship to PhD. TU4Dublin is where career-focused students, talented staff, societal partners and academic excellence converge to create the graduates of tomorrow.

Vision

The vision of Dublin’s Technological University is to be Ireland’s most dynamic higher educational ecosystem positively shaping the future.

Mission

Building on our histories and heritage, our mission is the pursuit of:

- ▶ Excellence in student-centred learning supporting the growth of enterprising and socially responsible citizens with a global perspective

- ▶ Practice-led, impact-focused research and deep discipline engagement that excites our students and staff, and benefits our communities, society and the economy
- ▶ Co-creation of teaching, learning and research through dynamic collaboration and open engagement between our students, the University and our partners from industry, the professions, and civic society

TABLE 2.1: CHARACTERISTICS OF TU4DUBLIN

Our...	Will be...
Students	Career-focused, professional, lifelong, international, inclusive
Staff	Inclusive, talented, sectorally engaged, committed, experienced, expert, and problem-solvers
Societal partners	Local, national and global; and they will be culturally, politically and economically sustainable
Academic excellence	Reputable, accredited, multidisciplinary, and characterised by professional teaching and learning, research, and engagement
Practice-based teaching and learning	Relevant, professional, experiential, engaged and enterprising
Diverse innovative pedagogies	Engaged, multidisciplinary and co-creative, and will involve collaborative teaching and learning
Engagement with partners	Permeable and co-creative, and will embrace open science and open learning for an open world
Research	Underpin our education, be excellent in practice and inherently multidisciplinary

Values

Our core values are excellence, impact and inclusion lived through our integrity, equality, innovation, and bravery.

- ▶ **Integrity:** ethical, beneficial, accountable, fair and just, honest
- ▶ **Equality:** open, collegial, respectful, broadminded, diverse, democratic
- ▶ **Innovation:** curious, influential, entrepreneurial, creative, critical
- ▶ **Bravery:** driven, ambitious, ground-breaking, passionate, courageous

Governing Body

TU4Dublin’s Governing Body will be its decision-making authority, and it will be constituted in line with the provisions of the Technological Universities Act 2018 – with between 14 and 22 members including the President and Chairperson. The members will include representatives of both academic and non-academic staff, representatives of both undergraduate and postgraduate students, nominated external members, three members nominated by the Minister, and one member nominated by local education and training boards.

Academic Council

The Technological University Act requires a unitary Academic Council and sets minimum requirements for the regulations and functions of the technological university’s Academic Council.

The approval of the regulations and functions for TU4Dublin’s Academic Council will rest with TU4Dublin’s Governing Body.

A key challenge for the TU4Dublin Academic Council in the foundation period is that a single unitary quality assurance framework will not be in place on Designation Day. Rather the three institutions current quality assurance frameworks will continue with the regulations for all existing programmes for the lifetime of those programmes. The foundation period Academic Council will strike a balance between minimising risk to core quality assurance and awarding functions in the founding institutes, while at the same time designing and implementing a fully integrated and unitary quality assurance framework within an agreed timeframe.

Membership of the Academic Council

The Technological Universities Act stipulates that the majority of the Academic Council shall be members of the academic staff of the technological university. It includes provision for member(s) coming from a business or enterprise background and from among stakeholders in the university's region. At least 40 per cent of Academic Council members shall come from both genders as well as such number of students as the technological university considers appropriate.

The proposal to the TU4Dublin Governing Body is that for the foundation period an interim unitary Academic Council will be established. Membership of the interim unitary Academic Council will be in the ratio of 4:1:1 (DIT:ITB:ITT). This foundation Academic Council will alternate between two modes in its meetings/agendas:

1. In operational/legacy mode, with a focus on maintaining existing programmes
2. In integration mode, with a focus on the future of TU4Dublin

The Academic Council's committee structures will be comprised of Academic Boards and integration committees.

Operational Academic Boards

Six Academic Boards will act as the operational/legacy committees of the TU4Dublin Academic Council and will have significant delegated authority to manage quality assurance according to the existing QA frameworks of the three institutions. These will include:

- ▶ Arts and Tourism Academic Board
- ▶ Blanchardstown Academic Board
- ▶ Business Academic Board
- ▶ Engineering & Built Environment Academic Board
- ▶ Sciences and Health Academic Board
- ▶ Tallaght Academic Board

These six Boards may maintain their existing committee structure. In the case of DIT, existing Academic and Quality Assurance committees will continue to operate to maintain consistency across the Arts and Tourism, Business, Engineering and Built Environment, and Sciences and Health Boards. The Graduate Research School will continue to operate.

Integration committees

TU4Dublin's integration committees will integrate the three existing quality assurance frameworks during the foundation period. The following have been identified as being necessary for Designation Day:

- ▶ TU Quality Assurance Integration Committee
- ▶ Learning, Teaching and Assessment Committee
- ▶ Recruitment, Admissions and Retention
- ▶ Student Experience Committee

- ▶ Library Committee
- ▶ Apprentice Education Committee

Additional committees may be established for technological university themes such as Digital Campus, Part-time/Flexible Learning, First Year Experience and Graduate Attributes. Further work is ongoing on the structure of the Academic Council and its committees.

Quality Assurance

TU4Dublin will have an adequately resourced system in place to oversee its provisions in education and training, research, and related activity to ensure their quality. The underpinning principles of such a system will be to build upon current successful practices within TU4Dublin to ensure:

- ▶ That all QA-QE processes are aligned with the mission and values of TU4Dublin
- ▶ Separation of roles and responsibilities in strategy formulations, development of implementation plans and related approval processes
- ▶ Protection of the integrity of academic processes and standards
- ▶ Protection of research integrity
- ▶ That any inherent risks are identified and realistic options for their mitigation formulated
- ▶ That outcomes of both internal and external review and evaluations are considered and where necessary, quality is enhanced
- ▶ Deployment of adequate staffing to the management of QA and QE processes

TU4Dublin will maintain a culture where quality is embedded in the teaching, learning and research community (including professional services) coupled with a commitment to quality improvement and quality enhancement. This will encompass:

- ▶ Clear descriptions of specific QA-QE processes
- ▶ Designation of roles and responsibilities
- ▶ Identification of KPIs, collection of related data, and evaluation of effectiveness of policies and procedures
- ▶ Demarcation and segregation of decision-making
- ▶ Ensuring that integrated QA-QE processes are adequately resourced

See also

For more detail on TU4Dublin's quality assurance, see **Quality assurance principles and processes** on page 48.

Organisational structure

PwC have been engaged by TU4Dublin to advise on the organisational structures that can best meet the needs of the new university on its establishment. Their recommendations centre on a number of areas:

- ▶ **Foundational:** there will be minimal change in the first year of TU4Dublin's operation. The same academic, professional and management structures and reporting lines will remain in place in each of the three founding institutions.
- ▶ **Designation Day:** A management coordination and advisory group will be established to support, advise and report to the incoming President during the first year of operation of TU4Dublin. This group will be comprised of the current institution presidents along with nominated individuals from each institution in the ratio of 12:3:3 (DIT: ITB: ITT). This group will remain in place until the transition into the new TU4Dublin structures at the end of the first year.

- ▶ **Establishment programme:** in line with the broader experience of other major successful transformation initiatives in higher education, a comprehensive transformation programme (the *TU4Dublin Establishment Programme*) needs to be put in place to deliver on the promise of TU4Dublin. This programme will build on the work of the Programme Team and the current programme plan. A comprehensive organisational design process will be undertaken following the development of the new strategic plan.
- ▶ **Implementation:** the new structures, programmes and processes, as developed under the TU4Dublin Establishment Programme Board will be implemented on a phased basis. The first two stages foundational and Designation Day will be in place for the first year of TU4Dublin. The new programmatic element will commence at the end of that year and extend for a number of years until the end-date of the *TU4Dublin Establishment Programme*.

See also

The proposed organisational structure of TU4Dublin is set out in PwC’s *TU4Dublin Transformation Programme Organisation Design Recommendations* (included as ancillary document as part of this application)

2.2 TU4Dublin’s approach to teaching and learning

Teaching and learning at TU4Dublin will enable our students to develop intellectually, professionally and personally while gaining mastery in their field of study.

The educational philosophy

Technological education involves the combination of theoretical and practical knowledge, and is enabled by a culture of research-led teaching that supports teachers and students to gain mastery in their fields of study and to apply their knowledge and skills in pursuit of sustainable careers. This is a philosophy that guides the activities of TU4Dublin and supports its mission, vision and values and includes academic freedom.²

TU4Dublin emerges in a period of major change within the national and international higher education landscape, where traditional boundaries between institutions have been replaced and in many respects have been redefined, by the manner in which a higher education institution leads, innovates, and responds to the changing needs of society.

The key endeavours of the TU4Dublin are teaching, research, and engagement in a global context. Student engagement will be achieved through a connected curriculum that will encourage the achievement of intellectual, professional and personal attributes in an integrated way and will foster a sense of relatedness between the student and the university.

TU4Dublin will support students in the three key areas of qualification, socialisation and student agency.

Qualification: achieving mastery, forming the *whole graduate*

Emerging from the experience of the three amalgamating institutes, and recognising the evolution of the higher education sector, one of TU4Dublin’s distinctive features will be its student-centred approach.

Teaching in TU4Dublin will aim to lead students towards the development of application skills combined with conceptual understanding, theory applied to practice, and will be informed by research and engagement with industry and the community. Research will inform learning at every level. Curriculum will be broadly defined to include the formal, informal and hidden curriculum.

² Based on output document from the Teaching, Learning, and Curriculum Transformation PDR Group, the Technological University for Dublin, Approach to Education

Learners will encounter leading edge knowledge in the disciplines, and will work with those researching and generating this knowledge. Learning in the TU4Dublin will lead to professional accreditation and internationally recognised qualifications.

Student engagement

TU4Dublin will be a multi-cultural learning community that will recognise the diversity of learning, culture, and skills that students bring. It will seek to draw on these qualities in its teaching, learning and assessment activities, forming peer-learning networks and encouraging students to act as mentors for each other.

TU4Dublin will value its students and learn from them, and it will include the unfettered student voice in every aspect of the university from the definition of programmes, teaching and learning activities, to assessment as appropriate. To continue to enhance the student experience, TU4Dublin will respond to student feedback, suggestions and input with collegiality and mutual respect.

The participation of a distinct cohort of learners will be welcomed by TU4Dublin across all our programmes – undergraduates, postgraduates, part-time students blending work with study, international students, further education students, those returning to learning after time at work and those with other responsibilities.

TU4Dublin is connected with partners in industry, professional bodies, regulatory agencies, and the community at local, national and international levels.

Student agency: asserting and developing creative capacity

TU4Dublin will seek to support students to assert and develop their creative capacity for autonomous learning and action. In doing so, it will develop the student as an agile lifelong learner, who will be able to build a sustainable career, and to make a contribution as an engaged citizen.

Learning in TU4Dublin will be exciting, dynamic and engaging. Individual learners will be able to find their own pathways into the university and through their studies at multiple levels. Each student will prepare a personal development plan, the fulfilment of which will be supported holistically by the institution. The TU4Dublin graduate attributes will be embedded in teaching and learning activities through the connected curriculum. Programmes will be designed around the student and in partnership with the student; and this will enable students to participate with the academic community to maximise their own potential and that of TU4Dublin.

Curriculum Framework

The Curriculum Framework has been developed as the topmost level of curriculum design for TU4Dublin. This framework is a broad structure within which multiple models can fit and which enables TU4Dublin's educational philosophy to be visible through the teaching and learning that our students will experience.

The framework is student-centred and focused on providing a unique, tailored, and personalised learning experience to our students. The curriculum framework links academic programmes with industry, community engagement and research, and integrates the full range of formal and informal learning experiences in the formation of the graduate. Where appropriate, students are brought into contact with learning in the professions, or have the opportunity to lead on community-based projects, or to work directly with researchers and develop deeper learning and understanding of their subject disciplines.

Programmes are constructively aligned with the described learning and teaching activities, and there is potential for alternative modes of assessment such as capstone modules, e-portfolios and projects.

TABLE 2.2: CHARACTERISTICS OF THE CURRICULUM FRAMEWORK

Principles that characterise the Curriculum Framework	
1.	A commitment to knowledge creation, research and scholarship, across NQF levels 6 to 10, and accessible to full-time and part-time students, and through blended and virtual learning.
2.	A strong focus on higher technical education, with a particular emphasis on the application of knowledge, research and scholarship.
3.	Recognition of the central relationship between students and academic staff for the advancement of intellectual and cognitive development.
4.	A student-centred approach that gives students some autonomy in determining their own educational programme.
5.	An emphasis on student engagement and connectedness with the university, covering their engagement with academic, administrative and support staff as well as with fellow students, external communities and potential employers.
6.	Recognition of the stakeholders who have an interest in the technological university curriculum – including Government departments, State agencies, national and international policy and advocacy groups, community groups, local councils, representative organisations, alumni, businesses, staff and students.
7.	Integration and connectivity across core activities of learning and teaching, and development of research skills.
8.	An emphasis on pedagogy that supports the learning outcomes and the development of the desired graduate attributes.
9.	A commitment to addressing the needs of our diverse community of learners, an ambition to expand participation among under-represented learner groups, and the application of a student-centred focus informed by the principles of universal design for learning.

The Curriculum Framework and enhanced student and graduate attributes

TU4Dublin aims to promote a distinctive approach to the learning experience of all students on its programmes. Its Curriculum Framework develops students personally and as active participants in the learning process, and who as graduates will have attributes that better equip them for today and for the future. It will help to achieve this by:

- ▶ building learning communities, and linking industry with programmes and with learners and by fostering a global perspective among students
- ▶ providing an enriched educational experience that facilitates students in the mastery of their subject-specific knowledge
- ▶ supporting students to become new researchers and to participate in leading edge research
- ▶ integrating the formal and informal curriculum in ways that optimise student engagement and learning
- ▶ involving students in activities that are likely to generate high quality learning – for example, through active participation in clubs, societies, sports, cultural events and the students’ union
- ▶ providing a first-year experience that facilitates the transition of students into the technological university environment
- ▶ providing excellent student support resources for student cohorts with particular needs in areas such as counselling and access to medical resources, and also particular support for access students and for students with disabilities
- ▶ offering access to particular learning support resources such as the Academic Writing Centre and the Maths Learning Centre, as well as to more general student supports
- ▶ providing strong programme management that monitors individual student performance and gives students ongoing feedback

The role of sport

Sport will play a key role in helping to building collegiality and team spirit among staff and students at TU4Dublin. It will offer competitive opportunities for those who participate, enhance the total student learning experience and help to develop desired graduate attributes. Sport offers TU4Dublin the opportunity to differentiate itself from other Irish universities.

The profile of sport in TU4Dublin, however, should match its status as the largest higher education institution in Ireland – in the quality of the sporting infrastructure and facilities, and also in the organisation and management of all areas of sporting life.

Programme provision planning

The purpose of TU4Dublin's academic provision planning will be to establish coherent planning arrangements for current students and faculty, and to do this following the principles that inform the Curriculum Framework (see page 27). The planned future state of TU4Dublin's academic programme provision from level 6 to level 10 will offer the following:

- ▶ Clarity for current and prospective students regarding our offering, including programme names, levels, awards and accreditation status, as well as access, transfer and progression routes
- ▶ Common validation and review processes for programmes
- ▶ Delivery of a common set of graduate attributes
- ▶ Embedding of a common student experience across the campuses, and opportunities relating to the first year experience, work placement, study overseas, civic engagement, and experiential learning
- ▶ Appropriate academic management and support structures at each campus and college location
- ▶ Provision of arrangements that will guarantee delivery of programmes from NFQ Level 6 to Level 10 on all sites, taking into account the regional remit of sites
- ▶ In addition to a broad range of professionally accredited programmes, TU4Dublin provides a number of unique programmes which are under statutory regulation such as under CORU, the regulator of health and social care professions in Ireland

The TU4Dublin context for programme provision planning

The context for transforming the curriculum and academic programme provision towards the future state required by TU4Dublin is challenging in its scale and complexity. TU4Dublin will promote an extensive array of programmes across levels 6 to 10 of the National Framework of Qualifications (NFQ), including apprenticeships. Currently, the partner institutions offer almost 800 academic programmes across over 30 schools with significant common provision across the campus locations.

As well as dealing with overlapping provision, it will be necessary to plan academic programme provision and to implement quality enhancement at the discipline level (e.g. science, engineering, ICT, business, humanities, etc.), and to do so within an organisational arrangement that can:

- ▶ Facilitate strategic academic programme portfolio planning and decision-making at discipline, multiple disciplinary and campus levels
- ▶ Facilitate discipline level quality enhancement of programmes
- ▶ Permit comparable academic programme benchmarking (i.e. discipline-based) including comparison of progression rates and student engagement survey data
- ▶ Provide for optimal allocation of resources at programme and campus location levels
- ▶ Optimally leverage centres of academic excellence at each of the campus locations
- ▶ Provide flexibility for new programme provision at any of the campus locations to respond to and meet regional ecosystem demands

- ▶ Support Accumulation of Credits and Certification of Subjects (ACCS) on each programme and across campus locations
- ▶ Enable consistent coordination of programme level engagement with professional bodies and accrediting agencies
- ▶ Facilitate a consistent quality enhancement mechanism that will communicate the outcomes of discipline level academic programme planning outcomes to the TU4Dublin Academic Council

2.3 TU4Dublin’s approach to research

‘Research is a critical activity with direct social and economic impacts and public and private benefits’ that permeates the TU, its geographical region, and the global communities with whom it engages.’³

Research is central to the vision for TU4Dublin. As a new kind of institution operating ‘at the highest academic level in an environment that is specifically focused on technology and its application,’⁴ supporting ‘a body of research that includes research relevant at regional, national and international levels’,⁵ TU4Dublin pursues excellence in the conduct of that research to serve all its stakeholders as well as the wider public interest. Research activity, underpinned by fundamental/theoretical concepts that can translate into novel technologies, practices and policies for the benefit of learning, society, business and industry, contributes to the TU4Dublin vision to be a research, innovation and thought leader in Europe with impact at a global level. Through its joint research and innovation activity and researcher training at Levels 9 and 10, TU4Dublin contributes to and reflects the interests of business, enterprise, the professions, the community, local interests and related stakeholders.

Research at TU4Dublin builds on a tradition of over a hundred years of involvement in Irish higher education, continually adapting and expanding its provision to reflect an evolving society and the wider environment. The research community comprises over 900 student and staff researchers engaged in addressing 21st century challenges, ensuring that TU4Dublin plays a vital role in Ireland’s continued evolution to a smart society. Academics and students are committed to making a significant contribution to international knowledge and enhancing Dublin’s role as Ireland’s global gateway.

The research undertaken at TU4Dublin is nationally relevant, internationally competitive, responsible, engaged and strategically important. It is strongly focused on problem-solving, and social and technological development and innovation, advances human knowledge, addresses societal challenges and makes a real impact on people’s life experience. Research is conducted through research institutes, providing shared infrastructure and supports, and in designated research centres. Research is organised around strengths in Environment, Energy & Health; Information, Communications & Media Technologies; New Materials & Devices; and Society, Culture and Enterprise.

Research principles

Research and scholarship at TU4Dublin is guided by the OECD definition which states that research ‘is characterised by originality, has investigation as a primary objective, has the potential to produce results that add to humanity’s stock of knowledge (theoretical or practical) and is deemed so by public scrutiny by being challenged and tested through peer appraisal’.⁶

³ Higher Education Authority (2012) Landscapes Document

⁴ Report of the Strategy Group (2011) National Strategy for Higher Education to 2030, p.103.

⁵ Technological Universities Act 2018, Sec 9(f)

⁶ OECD (2015) Frascati Manual 2015 Guidelines for Collecting and Reporting Data on Research and Experimental Development.

The following principles have been adopted to guide the development of research at TU4Dublin:⁷

- 1 TU4Dublin supports the academic freedom of all researchers while encouraging affiliation within designated research centres and groups with independence of investigation as a core principle within the overall TU4Dublin strategy.
- 2 Research informs and supports our teaching, is solution-focused, curiosity driven and has measurable academic, social, cultural, political, environmental and economic impacts.
- 3 Research is underpinned by an integrated system of quality assurance for research building upon peer review mechanisms and incorporating relevant metrics and complementing the specific procedures in place to quality assure research education and training.
- 4 Research is primarily organised into Research Institutes (RIs), the objective of which is to create a high quality, shared research environment to support the wider research community. RIs bring together researchers within broadly complementary fields of activity and encourage collaborative links between researchers, centres and groups.
- 5 Research is aligned with National Research Priority Areas,⁸ societal challenges for the EU Horizon 2020 programme,⁹ and achieving UN Sustainable Development Goals (UNSDGs).
- 6 TU4Dublin promotes and promulgates ethical research and scholarly practice, emphasising integrity and rigour and sustaining a culture in which the principles of honesty, openness and fairness are understood and observed.¹⁰
- 7 TU4Dublin supports the Open Science agenda with the commitment to making TU4Dublin's research publications and research data open and publicly available.¹¹
- 8 Knowledge transfer and commercialisation of research is an integral part of TU4Dublin's serving the community and public interest.

Research excellence underpins all aspects of our educational mission and contributes to the ability to attract high quality faculty and students as well as competitive research funding, the capacity to provide useful knowledge for a range of stakeholders, thereby enhancing the institutional reputation and allowing it to better fulfil its public service mission, for the benefit of students, staff, society and the economy.

Research environment

TU4Dublin is committed to fostering a vibrant and open research environment that can sustainably grow and consistently achieve excellence and engagement, to achieve rigorous and impactful research and innovation outcomes. Four core elements underpin the research environment at TU4Dublin:

- ▶ Research institutes
- ▶ Research support services
- ▶ The Graduate Research School
- ▶ The Commercialisation and Knowledge Transfer Office/ DIT Hothouse

Covering the full range of provision, a comprehensive and coordinated research and innovation professional support service (Figure 2.1) is provided through the Directorate of Research & Enterprise (DRE) and Research Institutes to schools, centres and groups.

⁷ TU4Dublin (2014) Research and Technology Centres: Design Structure Option, p.3

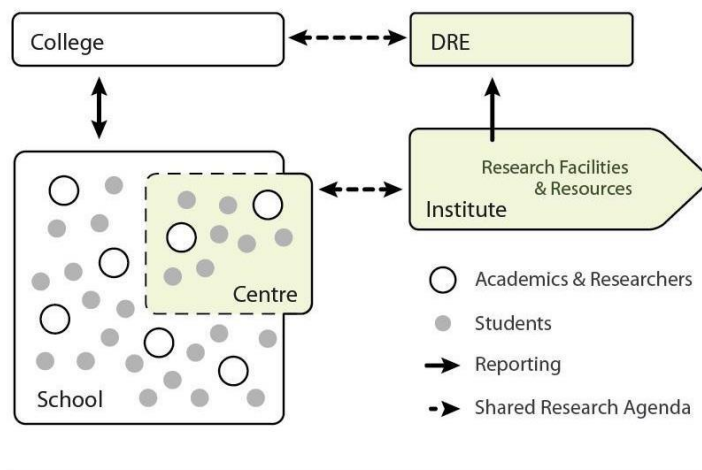
⁸ Dept. of Business Enterprise & Innovation (2018) *Research Priority Areas 2018 to 2023*. Available at: <https://dbei.gov.ie/en/Publications/Publication-files/Research-Priority-Areas-2018-to-2023.pdf>

⁹ <https://ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges>

¹⁰ National Policy Statement on Ensuring Research Integrity in Ireland.

¹¹ DIT was the first institute in Ireland to have an Open Access policy for publications and has the highest coverage of any HEI with 85% of its research disseminated freely. Arrow, the full text repository, now hosts research across TU4Dublin.

FIGURE 2.1: RESEARCH AND INNOVATION ENVIRONMENT



Research Institutes provide access to dedicated research facilities, supports and leadership, and are the focus of ongoing research investment. With an independent strategic mission, they allow for the creation of research platforms and partnerships across and outside TU4D. They are a formal, recognised part of the research infrastructure and ensure that resources are used in the most efficient manner to support the full range of research activities to full capacity.

Research support services are coordinated by the **Researcher Support & Development Unit (RSDU)** which provides comprehensive support services for the planning, initiation, development, awarding, performance, delivery and completion of research projects and programmes. Pre-award support includes working with researchers to identify relevant research and funding opportunities that will support their research plan, prepare grant applications, plan and manage the proposal process. Post-award support provides assistance to researchers in areas of contract management, compliance and preparation of financial statements. The RSDU also undertakes data management, analysis and planning for research across TU4Dublin. Postdoctoral and Early Career Researcher Support is a particular emphasis to facilitate mentored research practice and implementation of an integrated career development framework.

The **Graduate Research School (GRS)**, established in 2015, is the over-arching entity which supports quality assurance of graduate research and develops graduate education programmes across the TU4Dublin Alliance. All postgraduate researchers and supervisors at DIT, ITT and ITB, in addition to being registered in their own school or department, are members of the GRS. PhD students complete specialised research projects in interdisciplinary research environments and simultaneously develop a range of discipline specific and transferrable skills and competencies utilisable by industry and the professions. The GRS also oversees delivery of the structured PhD programme comprising education activities that support the acquisition of a range of relevant specialist and transferrable skills.

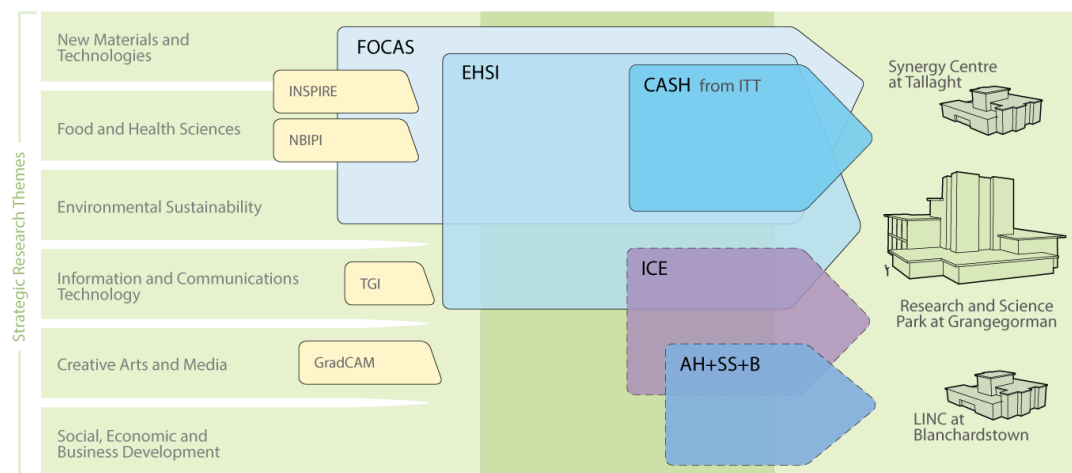
Knowledge transfer and enterprise supports include engaging with industry by offering research, new technologies, consultancy, training and access to laboratory facilities in partnership with TU4Dublin researchers; maximising the commercialisation of intellectual property developed by the research community; and supporting the launch and growth of knowledge-intensive start-ups. TU4Dublin have partnered to lead the Dublin Region Innovation Consortium (DRIC). Established in 2013, DRIC includes DIT, IT Tallaght, IT Blanchardstown, IADT, National College of Ireland and the Dublin Institute for Advanced Studies (DIAS) and seeks to maximise the impact of research through enterprise engagement, research commercialisation and entrepreneurship support.

Research infrastructure

Research activity in the three partner institutions has grown steadily since the early 2000s, when the first large scale investments were made in Irish higher education's research infrastructure, through the Programme for Research in Third Level Institutions (PRTLl).

The historical development at TU4Dublin (Figure 2.2) has focused on building capacity in key areas of research strength. Research Institutes (RIs) bring together researchers within broadly complementary fields of activity and encourage collaborative links between researchers, research centres and groups in order to build critical mass in distinctive fields of enquiry.

FIGURE 2.2: RESEARCH DEVELOPMENT AT TU4DUBLIN, 2000-18



The **FOCAS Research Institute** - DIT, was established under the Higher Education Authority Programme for Research in Third Level Institutions, Cycle 1 (1999-2001), co-funded by the EU. The 3200m² facility provides state of the art core laboratory support in microscopy and spectroscopy for a range of research groups and activities. The facilities were consolidated under PRTLl Cycle 4 (2007-2013), co-funded by the EU Regional Development Fund, through the Integrated NanoScience Platform for Ireland and the National Biophotonics and Imaging Platform, Ireland and are incorporated as a pilot site in the EuroBioImaging programme.

The **Centre of Applied Science for Health (CASH)** was established at IT Tallaght in 2007 as a collaborative effort between biology and chemistry research groups at IT Tallaght, NUI Maynooth, the National Institute of Cellular Biotechnology at Dublin City University and Tallaght Hospital. It was funded under the Higher Education Authority - Programme for Research in Third Level Institutions (PRTLl) Cycle 4 and carries out research in areas such as Microbial Host Interactions; Bioengineering Technology; Biomedical Devices; Pharmaceutical & Materials Analysis; Antimicrobials; Sensors. CASH hosts MiCRA-Biodiagnostics, part of Enterprise Ireland's Technology Gateway Network, which provides technology solutions and support to SMEs and specialises in the development of microsensors for the food, pharmaceutical, diagnostics, biotechnology, environmental, human and animal healthcare and agriculture sectors

The **Environmental Sustainability and Health Institute (ESHI)** was funded under PRTLl Cycle 5 and, alongside the Enterprise Ireland-supported Incubation facility, is located in the Greenway Hub at the heart of the DIT Grangegorman campus. ESHI is a dedicated national translational research platform, uniquely based on collaboration between Dublin Institute of Technology (DIT), the Health Service Executive (HSE) and Dublin City Council (DCC), building national and regional capacity and capability. ESHI is an all-island initiative, involving strategic partnerships with the University of Ulster (UU), Dublin City University (DCU), the Institute of Public Health (IPH) and other stakeholders, facilitating

an interdisciplinary and cross-sectoral approach, integrating academic research with the knowledge and expertise of relevant professionals to generate collective responses to public health issues.

More recently, the **Information, Communications and Entertainment (ICE)** Research Institute was established as a virtual institute to bring together complementary strengths in ICT-related research in Content Enabling Digital Technologies (such as Artificial Intelligence, Data Science, Machine Learning, and Digital Humanities/Studies), Distribution and Delivery Platforms (including Next Generation Internet and Internet of Things research), and Engineering Technology. ICT and media technologies are an area of particular industry need and one which TU4Dublin partners are well-placed to fulfil. The ICE RI also builds on DIT’s partnership in two national SFI Research Centres (ADAPT¹² and CONNECT¹³) and in the EI/IDA national Technology Centre, CeADAR¹⁴, Centre for Applied Data Analytics.

The **Research Institute for Arts Humanities and Social Sciences (AHSS)**, currently in development, seeks to support the strong and distinctive provision across TU4Dublin in creative arts and media, in digital humanities and in business and social sciences. Its Graduate School of Creative Arts and Media (GradCAM) was established under PRTL I 4 as Ireland’s first centre for doctoral research education across design, visual and performing arts, media practice and their associated critical, historical and theoretical discourses. Research is characterised by a strong practitioner orientation, and fosters multidisciplinary activity and student interactions across disciplines as one of the distinctive features of the new TU.

TABLE 2.3: RESEARCH INSTITUTE CAPACITY TU4DUBLIN

	Founded	PRTL I	ISCED	Capacity	National platforms
FOCAS	1999	I,II, IV, V	05,07	3200m ² 5 core staff ~30 associated academics, ~50 Centre/Group staff (technical/postdoc, RA) 100 postgraduate research students	Integrated NanoScience Platform for Ireland (INSPIRE) National Biophotonics and Imaging Platform, Ireland (NBIP) CREST EI Technology Gateway
ESHI	2015	V	03,05	2500m ² (Lab Space) 2000m ² (Incubator) 5 core staff 100 desks 60 bench laboratory spaces	EI/IDA Meat Technology Ireland (MTI) EI/IDA Dairy Processing Technology Centre (DPTC) EI/IDA Pharmaceutical Manufacture Technology Centre (PTMC)
CASH	2008	III, IV, V	05,07	1310 m ² Core Staff: 1 Research Manager 1 Gateway Manager 1 Business Development Manager 2 Admin Staff 2 Senior Scientists 2 x 0.5 technical staff 15 associated academics 39 postgraduate students	MiCRA EI Technology Gateway

¹² <http://adaptcentre.ie/>

¹³ <http://www.sfi.ie/assets/media/files/downloads/Investments/CONNECT%20Snapshot.pdf>

¹⁴ <https://www.ceadar.ie/>

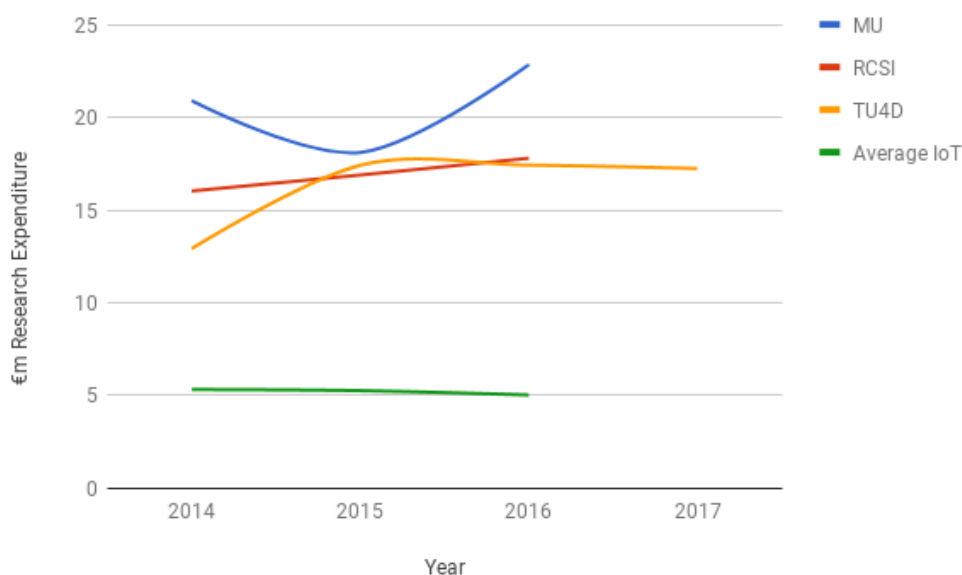
ICE	2016	IV	03,04,06,07	Academic Leader 9 associated Research Centres 89 PhD students across ICT 20 post-doctoral fellows	ADAPT SFI Research Centre CONNECT SFI Research Centre CeADAR EI Technology Centre
AHSS	2018	IV	02,03,04	85 PhD students in Creative Arts Humanities 62 PhD Students in the College of Business 65 PhD Students in Social Science, Humanities Core Staff (GradCAM) = 2 Core Staff IHA = 2 Associated staff - 15	GradCAM Irish Humanities Alliance NCFIS

Research performance

Research performance is evidenced by significant growth in research awards and research expenditure, strong growth in research student enrolments, in research outputs and in knowledge transfer.

Research expenditure, as measured in the Annual Knowledge Transfer Survey (AKTS),¹⁵ has increased from €10m to €17m in the period 2014-17, significantly above the average for the technological sector and close to the performance of universities in this area.

FIGURE 2.3: RESEARCH EXPENDITURE IN €M PER ANNUM



Following a greater strategic focus on projects of larger scale, the number and size of research awards has also increased. In the period 2014-18, TU4Dublin has earned in excess of €30m, of which €20.5m is represented by competitive research grants.

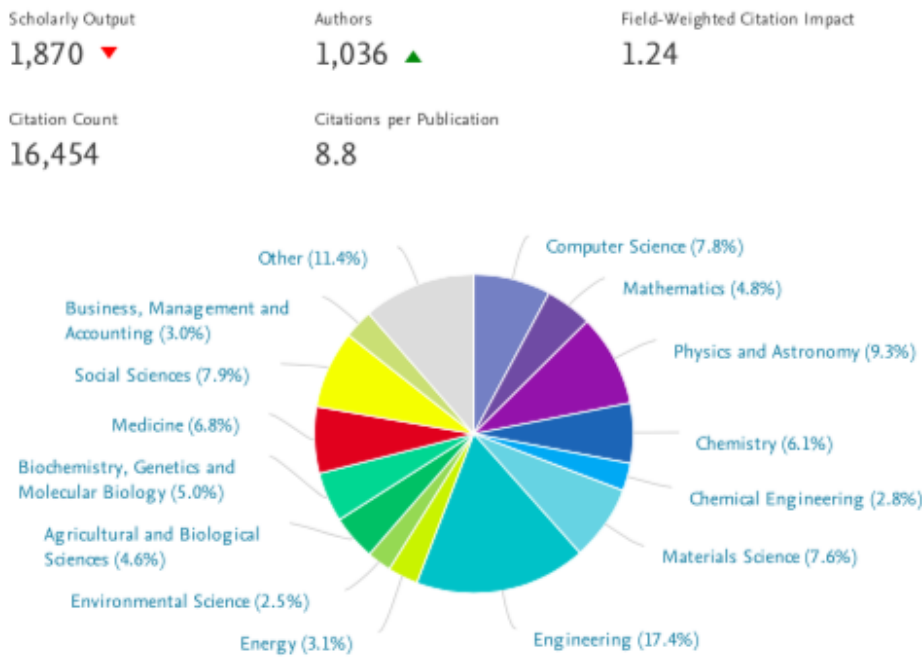
Research student enrolments have similarly demonstrated steady growth in each of the institutes. From a baseline of approximately 250 students registered in the early 2000s (5:1 Masters to PhD), graduate research education has steadily transitioned to PhD-track with 727 research students registered, predominantly on PhD programmes.

Research outputs for the period 2012-16, as indexed in Scopus, show 1,870 outputs in 15 broad

¹⁵ Knowledge Transfer Ireland, *KTI Annual Review and Annual Knowledge Transfer Survey (AKTS)*. Available from: <http://www.knowledgetransferireland.com/KTI-Reports/>

topic areas (Figure 2.4). Publications attracted 16,454 citations with an average of 8.8 citations per publication and field weighted citation impact of 1.24.

FIGURE 2.4: TU4DUBLIN RESEARCH OUTPUTS, 2012-16



Source: SciVal

Areas of particular strength, with a field weighted citation of close to twice the world average, are identified as the following topics:

TABLE 2.4: RESEARCH OUTPUTS (FWCI > 1.8), 2012–16

Area	Scholarly Output	Authors	Citation Count	Citations per pub	Field-Weighted Citation Impact
Bioengineering	14	23	379	27.1	2.66
Biotechnology	29	47	663	22.9	2.43
Catalysis	11	17	1803	163.9	6.01
Chemical Engineering	88	111	2983	33.9	2.24
Environmental Science	82	123	2774	33.8	2.42
Food Science	86	64	1290	15	1.87
Immunology and Microbiology	28	35	537	19.2	2.27
Information Systems and Management	10	17	110	11	2.46
Engineering	14	11	266	19	2.76
Mechanical Engineering	52	59	739	14.2	1.79

Process Chemistry and Technology	11	29	1662	151.1	6.03
Safety, Risk, Reliability and Quality	34	41	295	8.7	2.03

Knowledge transfer is a distinctive and strong feature of the TU4Dublin research and innovation system. DIT established its technology transfer office Hothouse in 2007 to licence inventions and create new companies based on DIT research. In the period from 2007 to 2017, over 1700 jobs in 400 sustainable businesses have been created with a value to the community of €655m. A summary of impact factors include:

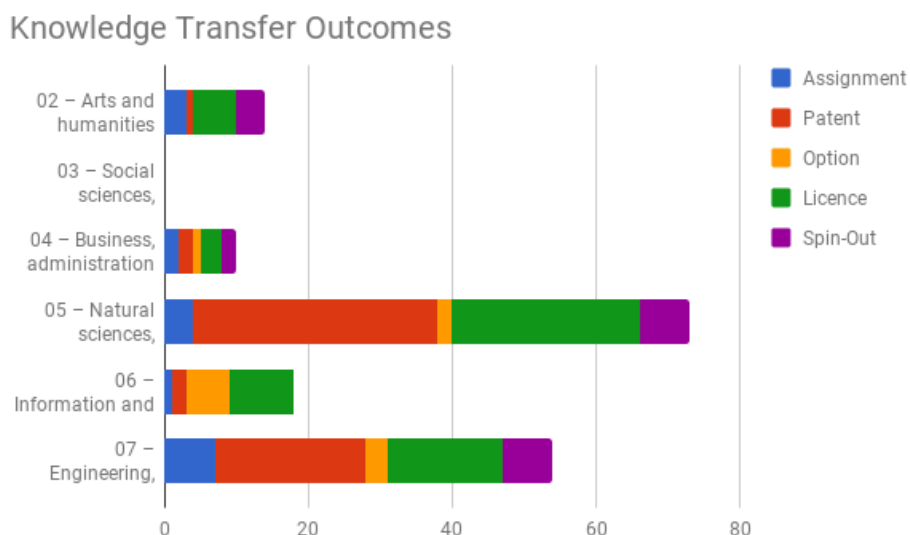
- ▶ 1700 sustainable jobs created in high technology areas
- ▶ Supported early stage companies with €195m in equity investment secured
- ▶ 36 spin out companies created
- ▶ 441 qualified inventions delivered
- ▶ 85 patents registered
- ▶ Over 30 new products launched based on own research

The three partner Institutes participate in the Dublin Region Innovation Consortium (DRIC) led by DIT. Under the national TTSI2 programme,¹⁶ the consortium exceeded the highest targets for commercialisation rates achieved by any Irish university, creating 19 spin-outs, 6 of which have already become High Potential Start-ups (HPSUs).

Knowledge transfer outcomes by ISCED show that this activity is also distributed across disciplines, reflecting the practitioner orientation and close to industry characteristics of the research (Figure 2.5).

See also *The Socio-Economic and Cultural Impact of TU4Dublin*, commissioned from 4-Consulting (included as ancillary document as part of this application)

FIGURE 2.5: KNOWLEDGE TRANSFER OUTCOMES BY ISCED, 2013-17



¹⁶ <https://www.enterprise-ireland.com/en/researchers/technology-transfer-support-system/>

Strategy for building sustainability and success

As part of its strategic planning process for research development, TU4Dublin has developed a detailed plan to consolidate and embed an internationally recognised, sustainable research culture and ecosystem.¹⁷ The plan addresses five distinct areas:

- 1 Meeting and sustaining targets for technological university designation
- 2 Quality assurance for research in the TU4Dublin
- 3 TU differentiated research mission and strategic partnership model
- 4 An appropriate organisational and financial model for research
- 5 Internationalising research conducted by TU4Dublin

The plan seeks to enhance capacity and lift performance of research across TU4Dublin through optimisation of the structures, systems and human capital that make up the research and innovation ecosystem.

Particular emphasis is placed on promoting a sustainable culture change in schools, facilitating engagement by staff in research and Level 10 education, supported by a Schools Research Development Programme.

Campus planning includes provision for increased research space in line with projected growth in research student numbers, to accommodate the new Research Institutes in ICT and AHSS and consolidation of research facilities and supports.

The strategy promotes research, innovation and knowledge exchange *'as mutually inclusive and mainstream activities necessary to grow further and enrich the socio-economic, cultural, and scientific contribution to be made by TU4Dublin to society'*.¹⁸ Creating synergies between these elements and ensuring the close interconnection of learning, teaching and research will provide a basis for further expansion and growth in research in terms of capacity and capability across all disciplines, and simultaneously strengthen the position of TU4Dublin within the provision of fourth level education in Ireland.

2.4 Embedding engagement in everything we do

The National Strategy for Higher Education to 2030 sets out a clear imperative for higher education to engage proactively with its stakeholders and unambiguously endorses the:

'... renewal of the higher education mission, in which the institution assumes major responsibility for the economic, social and cultural vitality and well-being of the community.'

From the first exploratory meetings of the TU4Dublin institutions, and at every stage since, the following aspirations have been repeatedly restated: TU4Dublin will:

- ▶ Have engagement as a defining characteristic
- ▶ Be embedded with its stakeholders

Be a truly engaged institution, co-dependent with all its key stakeholders.

An early working mission for the *TU4Dublin Engagement Plan* was expressed in the following terms:

'To co-create knowledge, economic, social, cultural and ecological value, and career- and life-ready graduates with our societal partners.'

This overall engagement strategy for TU4Dublin aims to 'embed engagement in everything we do', and is concerned with all aspects of engagement between TU4Dublin (through its staff and students) and a very wide range of external stakeholders – civic, community, voluntary, industry, business and employer organisations, social enterprise, representative and professional bodies, State agencies, other educational organisations, cultural and media organisations, and individuals. An

¹⁷ TU Programme Team (2017) *Package Definition Report - Research*

¹⁸ TU4D Implementation Plan (2014), p.27.

entrepreneurial ethos will be reflected throughout all aspects of the TU, namely, education philosophy, engagement and research.

A truly engaged institution

Much work has been done over the last four years to flesh out the concept of a truly engaged institution, including:

- ▶ Numerous workgroups and workshops with internal and external stakeholders
- ▶ Reviews of current practice in the three institutions and of good practice internationally
- ▶ Independent external reviews, including an assessment by the Carnegie Foundation of our civic engagement activities
- ▶ The independent *Socio-Economic and Cultural Impact of TU4Dublin* – included as an ancillary document with this application

Key messages relating to engagement

Much of the engagement work described above has been captured in TU4Dublin's engagement plan. Additional inputs have been made by a variety of project groups over the last year. A final set of independently facilitated workshops and interviews with internal and external stakeholders was held in recent months to check, gap-analyse and validate the vision and the plan. The key messages from these exercises are summarised below.

Unserved opportunity in the Dublin region

A large university in a dynamic city region has potential beyond anything that has been realised by an Irish university before in the social, economic and cultural impact it can have on its region and beyond – provided it values engagement on a par with its other missions, that it is accessible and practical in orientation, and that it is prepared to synergistically exploit the resources it has gathered to fulfil its teaching and research missions. Furthermore, it is clear that there is a significant opportunity in the greater Dublin region which is currently not served – there are many organisations that are interested in collaborating with such an institution and that clearly comprehend the potential benefits.

The opportunity identified has been recognised from the very inception of the TU4Dublin Alliance. The statements listed above signify the priority and ambition attached to engagement in TU4Dublin.

Focus on innovative and ambitious engagement

There is a strong focus in TU4Dublin's vision, mission and strategic positioning on innovative and ambitious engagement.

There is also ample evidence, corroborated by several independent external parties, that there already exists a strong appetite and an ambition for engagement within and across the alliance, as well as the capacity and competence to collaborate effectively. The track record of all three institutions in engagement with external organisations – industry, employers, public sector, civic, community – is testament to this, as is the interest and enthusiasm displayed by staff, and indeed students, who were surveyed and interviewed as part of this process. This represents a strong starting point in the creation of an engaged university as exists in Ireland, and TU4Dublin is confident that the totality of its plans can transform the appetite and ambition of many into a pervasive culture of engagement and an impact that is greater than the sum of its parts.

An engaged curriculum

An engaged curriculum and engaged and applied research are at the heart of university engagement, as their combination is essential to the delivery of enhanced learning outcomes for students, enhanced currency for staff, and value for community and industry partners. Projects requiring a

multidisciplinary approach are particularly valuable, as they promote collaboration between disciplines and more authentic real-world learning opportunities.

The concept of an engaged curriculum is a central pillar of the TU4Dublin Curriculum Framework (see page 27), and it is aligned perfectly with TU4Dublin's practical, career-focused mission.

Engagement leadership

Committed, innovative and connected leadership of engagement is essential. It will be in place across the organisation at a coordinating level and throughout the various units, and it will build on existing strengths and be open to experiment and innovation.

Engaged research (that is advanced with community partners rather than for them) and applied research (where knowledge of use to stakeholders in the region is targeted), are both important elements of the TU4Dublin Research Strategy.

Structural and operational arrangements

Structural and operational arrangements can support or hinder engagement. The freedom to engage and experiment, and to expand the scope of engagement activity will be balanced by clear structures and guidelines that encourage, enable, recognise and reward engagement.

The organisation will be accessible and navigable – externally and internally borderless – if optimal impacts are to be achieved – whether through multidisciplinary teams or an individual's expertise.

Leadership, structure and operational arrangements to support flexible, responsive and sustainable engagement are key considerations in the ongoing organisational design activity. Reward, recognition and workload allocation in respect of engagement are the subject of national discussions, but there is sufficient scope within the existing academic contract to allow engagement activity to be included as part of workload. The organisational principle of subsidiarity will inform planning whereby schools and other units will be given freedom to operate in the engagement sphere within defined parameters towards agreed targets, in return for accountability and full transparency.

Capturing and sharing of information

Effective capture and sharing of information on external engagement activities and relationships is notoriously elusive, but it is a key success factor. A carefully designed combination of information systems, protocols and incentives will be developed to both facilitate and encourage sharing and a networked approach.

A TU4Dublin Engagement Framework for categorising and capturing information on engagement activities, protocols for sharing valuable contact and operating information, and supporting information systems (e.g. CRM-type systems) are all deliverables of ongoing active projects relating to engagement. An Employer Engagement Strategy is also under development.

Evaluation and measurement of engagement benefits

Evaluation is another challenging area. No rigid framework can anticipate or measure the variety of social, economic or cultural benefits that will accrue from different forms of engagement. Premature measurement is likely to choke experimentation and therefore evaluation must be constructive rather than purely critical.

The HEA System Performance Framework 2018 –2020 establishes high level targets and indicators for engagement activity. The metrics for engagement and the process for applying them will flow from the TU4Dublin Framework, taking cognisance of the HEA System Performance Framework indicators. The measurement system will be a critical element of the engagement model, and must be designed imaginatively with input from external and internal stakeholders. Imaginative and novel

methods for measuring outcomes (such as using shadow costing to assign an economic value to social development activity, with higher weightings for projects, programmes or activities which affect higher policy priority social groups) will be included.

Communication

Communicating the scope that is envisaged and celebrating success, together with early and visible reward for those who embrace the engagement practice, will be key to confirming to internal and external actors alike that Engagement ranks with Teaching and Learning and Research in TU4Dublin. Communication of the engagement scope, activity and successes will be key elements of the TU4Dublin Communication Strategy.

Networking approach

The idea of a network hub for regional and city development is an essential feature of a connected, innovative and agile technological university. The strategic locations of the TU4Dublin campuses, the existing connectedness of the three institutions, the scale of TU4Dublin, and its focus on application and careers positions TU4Dublin perfectly to be a central hub of a number of important networks in the greater Dublin region. Work is under way to map out existing and potential new networks to which TU4Dublin can add value.

Industry and civic engagement

Industry and civic/community engagement are treated as two sides of the same coin in the *National Strategy for Higher Education to 2030* and in other high level national policy documents. Objective 2 of the HEA's *System Performance Compact 2018 – 2020* speaks of:

'...engagement which enhances the learning environment and delivers a strong bridge to enterprise and the wider community'.

Despite the differences in culture between commercial, not-for-profit and public sector organisations, or perhaps because of them, the idea of designing in opportunities for cross-sectoral interaction through overlapping networks and an integrated internal engagement support structure is being developed. Industry and community are very closely allied, and require the same skillsets to support them.

Specialists in each domain will always be required – for example, in technology transfer and licensing or manufacturing on one hand and in community interaction or social policy on the other. However, many skills are applicable in all sectors – for example, marketing, finance, human resource management or competence in accessing European funding. An integrated approach is therefore proposed.

Industry engagement

A strong engagement with industry will also be a distinguishing characteristic of TU4Dublin. This will be particularly important because our education philosophy is so firmly based on the combination of theoretical and practical knowledge, which supports students in gaining mastery and then applying it in the world of work and industry.

All three institutions have significant experience in industry engagement, having been deeply involved with industry at many levels for decades. The landscape of industry engagement can be segmented by size or sector, and the TU4Dublin institutions have particularly strong track records with the ICT manufacturing, pharmaceutical and software sectors, among others, but have worked with most sectors and have the potential to collaborate with all of them. They are, however, the undisputed leaders in working with knowledge-intensive start-ups and incubating companies.

The three institutions are also leaders in engagement with large corporations and MNCs. The level of engagement with SMEs, however, is less developed. This is because SMEs tend to have tighter budgets and much shorter time horizons than larger corporations. However, they do make up 99.7 per cent of enterprises in the State, and employ over two thirds of the workforce. Working with SMEs is targeted as a major growth area for TU4Dublin, and has the potential to deliver a major economic and social boost for Dublin.

TABLE 2.5: INDUSTRY ENGAGEMENT

Industry engagement in numbers	
Number of programmes with professional body accreditation: 75	
Number of students on programmes with professional body accreditation: 6,132	
Almost all programmes across the three institutions have <i>either</i> work placement <i>or</i> internship <i>or</i> professional body accreditation.	
DIT	DIT has over 50 collaborative programmes with industry and other external organisations, involving approximately 3,000 students.
IT Tallaght	IT Tallaght has 16 programmes with a work placement element (436 students involved); 35 programmes with an industry project; 17 programmes with professional body accreditation; and has run bespoke programmes for more than 25 multinational corporations.
IT Blanchardstown	IT Blanchardstown has developed bespoke upskilling programmes in computing, engineering and business skills with over 800 staff members in over 20 companies; it has 10 programmes with a significant workplace element.

Areas of industry engagement

Within TU4Dublin we are committed to strengthening our industry engagement, and the main areas where this will happen are in:

- ▶ Building industry input into our programmes – in their design, delivery and assessment
- ▶ Collaborating with industry to meet their CPD requirements for bespoke education and training
- ▶ Arranging work placements for our students
- ▶ Managing technology transfer – to help build successful enterprises around great technical ideas and research innovations.
- ▶ Provision and development of Apprenticeship programmes
- ▶ Industry accreditation

Industry input to programme design, delivery, assessment

TU4Dublin will draw external examiners and members of programme boards and review panels from industry. It will also talk to consultative groups in industry when carrying out foresight and environmental scanning exercises.

As currently in the three institutes, there will be two-way mobility of lecturers between TU4Dublin and industry. Many of our programmes will be firmly based in industry, or will be jointly delivered by TU4Dublin lecturers and industry specialists. We will also promote the use of guest lecturers with particular knowledge or skill sets drawn from industry. Many of our academic staff will be recruited from industry.

Continuous professional development

All three of our institutions have considerable experience in delivering continuous professional development programmes to industry.

- ▶ DIT alone has put together over 50 collaborative programmes with external organisations
- ▶ IT Tallaght has played a major role in meeting the upskilling needs of the ICT industry, and has run bespoke programmes for more than 25 multinational corporations
- ▶ IT Blanchardstown has run bespoke programmes with more than 20 companies

Work placements and experiential learning

Industry work placement and experiential learning play an important role in many of the programmes currently offered in the three institutions, and TU4Dublin is committed to continuing this. Currently over 2,000 DIT students take part in industry-based work placement projects each year across dozens of programmes.

Technology transfer

All three of the institutions are part of the Dublin Region Innovation Consortium (DRIC) with DIT playing the lead role. This is an innovation and knowledge transfer consortium funded by Enterprise Ireland's Technology Transfer Strengthening Initiative programmes, TTSI1 and TTSI2.

To date, DRIC has accounted for between 10 and 20 per cent of technology transfer outputs delivered under TTSI1 and TTSI2, and some of the targets for TTSI3 have already been exceeded. Under TTSI2 alone, 23 products or services have been brought to the market, including Optrace's holographic anti-counterfeit label, an antenna for Decawave's ScenSor (Single Chip Wireless Transceiver) chip, Opti Wifi's wireless internet optimisation solution and Checkventory's field-based auditing system.

TABLE 2.6: COLLABORATING START-UP INCUBATION CENTRES RUN BY THE THREE INSTITUTIONS

Centre	Description
DIT Hothouse	Hothouse is DIT's knowledge transfer and incubation centre. Since its establishment in 2007, it has consistently outperformed all other Irish university knowledge transfer offices, completing up to 20% of the annual commercial technology transfer licences in Ireland. Through its Enterprise Ireland-funded incubation programmes, DIT Hothouse has helped create nearly 400 sustainable businesses that have attracted over €200 million in equity investment and created approximately 1,700 quality jobs.
IT Tallaght Synergy Centre	The Synergy Centre is IT Tallaght's business and bio-incubation facility, offering a supportive environment for innovative entrepreneurs and knowledge-based early-stage start-ups.
IT Blanchardstown LINC	LINC (Learning and Innovation Centre) is a tangible link between the Institute and the business community. It offers a range of facilities, including support, mentoring and a business incubation programme.

TABLE 2.7: CHARACTERISTICS OF A SUCCESSFUL ENGAGED TECHNOLOGICAL UNIVERSITY

Engaged university	Highly engaged student experience	▶ Curriculum for world-class graduate attributes
		▶ Active citizenship nurtured through student engagement
		▶ Integrated and complementary digital experience
		▶ Learning in international and intercultural environments
		▶ Experiential learning in community and industry settings
		▶ Industry and community based research
		▶ Complementary co-curriculum and campus life
	Engaged, up-to-date staff	▶ All staff empowered to engage with stakeholders
		▶ Engagement activity in and out of curriculum recognised and rewarded
		▶ All staff supported in their development for engagement
		▶ Academics are professional educators and engage in CPD
		▶ Creative and innovative thinking and attitudes continuously developed
		▶ Mobility to work in other organisations and fields, including internationally
	Technological university: connected, innovating, agile	▶ Engaged teaching and research to enhance learning and community
		▶ Proactive in economic, social and cultural development
		▶ Use-oriented, responsible research in partnership with societal actors
		▶ Easy access for stakeholders to explore and interact with a technological university
		▶ Enterprising and internationalised culture
		▶ Network hub for regional and city development
		▶ Flexible and enabling systems

Civic engagement

Civic engagement at TU4Dublin means staff and/or students collaborating with and in the community, with the support and recognition of the university, to generate reciprocal and mutual gain for both the university and community. This can take place at local, regional, national and global levels, in the furtherance of knowledge and the development of graduate attributes, and for community/societal development. In using the term ‘community’ we are particularly mindful of the need to collaborate with underserved communities, in addition to other communities, groups and

individuals. This form of collaboration may include engagement with industry where the primary focus of the collaboration is in supporting community needs, including their economic development.

TU4Dublin's planned civic engagement covers the following areas:

- ▶ Community based/community engaged learning
- ▶ Socially engaged research
- ▶ Community collaboration on curriculum design/delivery
- ▶ Active socially engaged collaborations
- ▶ Volunteering
- ▶ Publicly accessible facilities, research and events
- ▶ Engagement-focused staff exchange and mobility
- ▶ Outreach education
- ▶ Widening participation
- ▶ Engagement with industry in support of communities

Access / widening participation

For TU4Dublin, widening participation means participating positively in the social, cultural, economic and educational lives of communities that experience disadvantage and social exclusion, and which are under-represented in the student cohort.

Both widening participation and civic engagement activities complement each other, in that together they address social exclusion both on and off campus and look at how TU4Dublin can support positive social change. This is the case whether we are collaborating with under-resourced communities to enhance their potential and ours, or supporting under-represented groups to access TU4D and meet their full potential.

Civic engagement reinforces the work of widening participation and vice versa, as both are about bridging the divide between TU4Dublin and those sections of our community that experience disadvantage, social exclusion or barriers to educational opportunity.

TU4Dublin will work from a shared understanding of social exclusion, disadvantage and challenges in accessing education, and how key concepts such as widening participation, civic engagement and universal design for learning can address these issues.

2.5 TU4Dublin's approach to apprenticeship and skills education

TU4Dublin will embody a very strong understanding of the changing needs of the economy, both in its short-term fluctuations and in the longer-term interests of individuals, businesses and enterprise. We will do this through our strong engagement with all stakeholders, and through the way we connect with Ireland's employment needs across industry sectors.

Key to this is the way that TU4Dublin will play a leading part in delivering on national targets for apprenticeship and skills education. These include the targets set in *Ireland's National Skills Strategy 2025* (published in 2016) including the target of establishing 100 new apprenticeship programmes by 2020 and that of creating 50,000 apprentice places in the same time period.

Context

Within an Irish context, apprenticeship is a defined term, and currently there are 27 statutory 'designated trades', which are colloquially referred to as 'traditional apprenticeships' or 'standards-

based apprenticeships'. 'Apprentice' also continues to be a defined term – meaning someone who is employed under a contract of apprenticeship.

However, following the 2013 *Review of apprenticeship training in Ireland*, and within the higher education context, apprenticeship is coming to be defined more broadly, both as the traditional, seven-phase standards-based apprenticeship scheme, and also as a mode of learning or as a set of learning outcomes from any applied programme of study.

In the context of TU4Dublin, a broad definition is useful, as it can cover the traditional apprenticeship and skills education, the newer apprenticeship programmes and the 'learn and earn' programmes – all of which provide students with a minimum workplace learning component of 50 per cent.

Commitment to excellence in apprenticeship education

TU4Dublin's strong commitment to an apprenticeship skills education is a major part of our response to the growing need for a diverse range of entry and progression routes for school leavers.

Within TU4Dublin's apprenticeship and skills education, there will be a strong focus on the achievement of student excellence, which will be measured through feedback from employers, employer groups and industry representative bodies and through comparisons nationally of the academic performance of students.

TU4Dublin will also work to achieve broader institutional excellence in apprenticeship skills nationally – for example, by taking a lead role in revising apprenticeship syllabuses and in developing new initiatives such as access programmes for apprenticeship.

Meeting the renewed growth in demand for apprenticeship skills

During the economic crash which began in 2008, the number of apprentice students fell substantially across Ireland. In the last four years, however, as the national recovery has gained momentum, apprentices have come back – in DIT alone, for example, the number of apprentice blocks (16 students per block) per academic year has grown from 55 in 2014/2015 to circa 78 in 2017/2018. For the TU4Dublin partners, all of whom will have apprentice provision in 2018/2019, the number of blocks will exceed 80, which represents over 30 per cent of the national provision, across 13 designated trades.

TU4Dublin will be the largest provider of third-level apprentice training in the country, underlining the key contribution that we will make, particularly in the construction and engineering sectors. At present there is a deficit in the supply of apprentices to this sector, which is so critical to the delivery of the housing and infrastructure that Ireland now needs. The scale of our commitment to providing apprenticeship and skills education will help substantially to address these key skills shortages.

From short skills programmes to academic research

In TU4Dublin, apprenticeship and skills offerings will exist within a continuum that ranges from short, work-based or part-time programmes to the full spectrum of degree awards offered by the university. The range of learning styles and experiences that TU4Dublin will support and the mobility between them will differentiate TU4Dublin from other universities.

TU4Dublin recognises how essential skills education and flexibility between different modes of education are to a rapidly changing open economy, and to how we work and live. TU4Dublin's apprenticeship programmes will be delivered in partnership with employers, will help address skills needs in the economy, and will offer students attractive and flexible educational pathways. With the right resources, we are confident that we can offer this type of flexible provision.

Embedding apprenticeship and skills experiences within TU4Dublin

The entire cohort of TU4Dublin students will have access to the technical facilities and expertise of the university, some of which are resourced from national funds for apprenticeship. Such facilities are both a national and a TU4Dublin resource, and must be exploited for the greatest benefit of all our students and for the benefit of Irish society as a whole.

Students at all levels and in all disciplines will be encouraged (by way of suitable projects and collaborative learning opportunities) to access facilities and to interact in a meaningful manner with fellow students across disciplines and across programmes at all levels. In support of this, the physical design of TU4Dublin and its facilities will positively facilitate such interactions.

The experience of the partner institutions over many years has been that the expertise and knowledge gained from apprentice and skills education, with its ‘hands-on, minds-on’ practice, lifted the knowledge level across undergraduate and other programmes – for example, as aspects of the apprenticeship training have migrated into the full time programmes with a very positive impact.

The apprentice student experience

A fundamental objective of TU4Dublin will be that apprentices receive the same high-quality student experience as their undergraduate counterparts.

One example of a proposed change in this area is in quality assurance policies, which in the past were applied in different ways to apprenticeship education and to undergraduate education. Under a new memorandum of understanding with Solas (the Further Education and Training Authority), it is now envisaged that appropriate elements of undergraduate quality assurance policies will be applied to the traditional apprenticeship programmes in TU4Dublin. This has been trialled on apprenticeship programmes within the TU partners and been very positively received. For new apprenticeships and ‘learn and earn’ programmes, the complete range of quality assurance policies and procedures will be applied as appropriate.

Progression and transfer for apprenticeship students

TU4Dublin will strive to provide an education environment that keeps pace with society’s needs by prioritising student progression at all levels, allowing not only individual students but also industry sectors and society as a whole to adapt to changing educational and economic conditions. Progression, mobility and different routes will be developed to allow apprenticeship and skills students to move through the spectrum of educational opportunities that best supports their interests, talents and career objectives.

‘Earn and learn’ mobility at TU4Dublin

A fundamental characteristic of a technological university graduate, at any level, is that they should know how to do things, because they have had the opportunity to develop and practise their knowledge in the ‘real world’. TU4Dublin recognises the attractiveness of apprenticeship and skills programmes for many learners:

- ▶ The ‘earn and learn’ model is attractive to many students, not only because it provides an income, but because for many people it makes higher education financially possible
- ▶ The learning style of an apprenticeship suits many students over more traditional undergraduate education
- ▶ An apprenticeship can enhance the work readiness and maturity of many students. Students on traditional undergraduate programmes do not usually start to consider their career skills until about Semester 7 of a four year programme, but those enrolled on an apprenticeship need to do so from the very beginning as their first step is to find a job with a suitable employer

2.6 TU4Dublin's quality strategy and processes

The statutory quality framework for higher education

Higher education in Ireland is underpinned by a system of quality protocols that are designed to ensure public trust in the standard of education and training delivered, and in the qualifications that learners are awarded. This quality system is overseen by a statutory body, Quality and Qualifications Ireland (QQI).

In parallel with QQI, the Higher Education Authority (HEA) has a statutory responsibility for the effective governance and regulation of higher education institutions and the higher education system as a whole.

As a designated and autonomous awarding body with the authority to make awards from Level 6 to Level 10, TU4Dublin will continue the satisfactory performance of DIT since 1998 in being statutorily required to have quality assurance processes in place to establish, maintain and improve the quality of education, training, research and related services that it provides. And to meet these statutory obligations, TU4Dublin will adopt a consolidated quality framework that builds upon the existing robust quality structures of the three institutions. These will include:

- ▶ **Internal QA structures and procedures** for achieving and maintaining the desired level of quality in educational and training curriculum provision, research strategies, and the related supporting services.
- ▶ **External QA processes** that engage fully and collaborate with the HEA and QQI in QA–QE dialogues, and adopt principles of continuous improvement and enhancement of QA methods.

Quality assurance principles and processes

Governance and management of quality

TU4Dublin will have a governance system in place to oversee its provisions in education and training, research, and related activity to ensure their quality. The underpinning principles of such a governance system will be to build upon current successful practices within the three institutions to ensure that all QA-QE processes are aligned with the mission and values of TU4Dublin.

All QA policies and procedures will be fully documented and published. They will provide clear schedules for periodic/cyclical internal reviews, to enable evaluation of the effectiveness and impacts of the QA process as a whole, and also the identification of any opportunities for improvement.

Programmes of education/training and research

Building upon existing structures of the three institutions, TU4Dublin will have:

- ▶ Systematic processes for development of new programmes of education and training (including research) informed by comprehensive stakeholder consultations and by internal evaluation.
- ▶ Published regulations covering all areas related to the student life cycle – access and admission policies will be implemented consistently, transparently and in line with national policies.
- ▶ Close monitoring of the delivery of programmes to enable any necessary modifications and to update delivery methods in line with TU4Dublin's overall strategy and good practice.
- ▶ Continuous monitoring of QA practice will be used as an opportunity for programme evaluation and for feedback from staff and students.
- ▶ Adequate procedures for quality assurance in relation to research and research-related services.

Staff recruitment, management and development

TU4Dublin will retain a systematic approach to fair and transparent staff recruitment for all cadres of staff. It will also provide continuing professional development (CPD) opportunities for all academic, technical and professional services staff.

The quality of the teaching and learning experience

TU4Dublin will continuously monitor the quality of the teaching and learning experience. This will include ensuring that:

- ▶ The contents of academic/training programmes reflect advances in the relevant disciplines and subject portfolios
- ▶ Pedagogical styles reflect effective practice
- ▶ The support infrastructure is appropriate to the teaching and learning requirements (including technology, laboratories, online delivery, work-based learning, placements and so on)

Assessment and supports for students

Building upon effective practices currently used in the three institutions, TU4Dublin will ensure that student assessment will be fair and consistent, and be carried out professionally at all times.

TU4Dublin will also continuously monitor the adequacy and fitness-for-purpose of the resources available to students. It will also ensure that learning resources reflect up-to-date delivery techniques and approaches, that support services (technology, libraries etc) are adequate, and that students have access to appropriate personal wellbeing and emotional support.

Information, communication and data management

TU4Dublin will maintain reliable information and data, and ensure their accessibility to inform decision-making. The information will reflect the broad context and mission of TU4Dublin, and will also be adequately granulated to support operations at unit/programme levels.

All information and data management will comply with policies on active records maintenance and retention, data protection and freedom of information.

TU4Dublin will publish information covering its activities, and as required by its statutory obligations. This will include information on education and training programmes, research and related services, the employment/career guideline statements, the underpinning QA policies and procedures, and the cyclical reports on evaluations and findings from QA evaluations.

Association with other parties involved in education and training

Building upon existing associations maintained by the three institutions, TU4Dublin's operations will involve:

- ▶ Engaging with statutory regulators in respect of specific disciplines and courses
- ▶ Engaging with relevant professional accreditation bodies
- ▶ Maintaining peer relationships with the broader education and training community
- ▶ Maintaining associations with external partners and second providers
- ▶ Engaging with expert panelists, examiners and authenticators to validate functions

As currently practiced in the three institutions, all linkages between TU4Dublin and other parties in awards, accreditations, collaboration arrangements and partnerships, both in Ireland and abroad, will be subject to appropriate internal and external quality assurance procedures. TU4Dublin will have criteria and procedures for recruitment and engagement of external, independent, national and international experts (where appropriate), and any reappointments will be subject to periodic reviews. The nature of all such associations will be published.

Self-evaluation, monitoring and review

Self-evaluation, monitoring and review are fundamental parts of the QA-QE systems of the institutions in TU4Dublin and the consolidated process will be enhanced for the TU. The consolidation exercises leading to a unitary QA system will identify and maintain any existing effective practices while concurrently addressing any areas needing improvement. The QA-QE process will provide for continuous internal self-monitoring, and focus on very specific performance indicators, while self-evaluations will be periodic and with a broader and systemic focus.

Engagement with stakeholders

TU4Dublin will concern itself with engagement across the range of its activities and across the range of its teaching and learning, research and assessment activities, and also across all its interaction with external stakeholders from civic society, industry and business, representative and employer organisations, professional bodies, and so on.

For all of these engagement activities, TU4Dublin will maintain comprehensive principles and guidelines. These include engagement for economic and regional development, engagement for civic and community objectives, and engagement for internationalisation.

Measurement of quality

The student experience, as determined from structured evaluation processes, is important in determining the effectiveness of pedagogical approaches, the performance and impact of research, and also the effectiveness of other supports that students expect.

TU4Dublin will use processes to assess its ongoing performance in key areas such as teaching and learning, research, knowledge transfer, international orientation, and its engagement with the greater Dublin region

TABLE 2.8: SIX-STEP PROCESS FOR DEVELOPING A QA-QE FRAMEWORK FOR TU4DUBLIN.

Step	Description
1	Compilation of policy inventory and development of common terminology.
2	Identification of policies to be retained, policies to be harmonised, and any policy gaps requiring the development/adoption of new policies.
3	Grouping of policies identified in Step 2 into QA policy guideline categories and implementation of work plan towards development of draft <i>QA-QE Handbook for TU4Dublin</i> .
4	Establishment of working groups by policy categories and open a structured consultation process across the institutions towards the development of harmonised/new policies for the unified <i>QA-QE Handbook for TU4Dublin</i> .
5	Approval, formal adoption, and publication of the harmonised/new policies as part of the TU4Dublin's foundation phase.
6	Publication of <i>QA-QE Handbook for TU4Dublin</i> .

2.7 TU4Dublin and internationalisation

Traditionally, internationalisation in higher education has often been defined as the international mobility of staff and students. Within TU4Dublin, internationalisation will be understood in much broader terms in the ways in which it can contribute to the quality of the education being provided and embrace all the activities of the university.

TU4Dublin's emphasis on internationalisation will equip students and staff to adapt to the changing needs of the national and international labour market, and it will offer a policy-view perspective of transnational mobility, so providing a positive benefit for all those who avail of the opportunity it

presents on a personal level. It will also support TU4Dublin’s mission and will complement its core strategies and related plans.

Internationalisation: national context

The *National Strategy for Higher Education to 2030* made clear the importance of internationalising Irish higher education, and in doing so it identified a range of practices and activities beyond attracting more international students into Ireland – including, for example, making Ireland an attractive destination for talented overseas faculty, developing internationalised curricula, and establishing strong international collaborative institutional and research links.

Today’s labour market expects interculturally competent students who can work efficiently and effectively in a rapidly changing and diverse labour market, where global mobility throughout their careers is the norm rather than the exception. The Irish economy relies on inward foreign investment, and Irish companies do compete and succeed in a global marketplace; and it will need graduates who have received a career-focused education and workplace learning with a substantial international dimension.

*Ireland’s National Skills Strategy 2025*¹⁹ includes language proficiency (alongside mathematical competence and ICT skills) as one of the key transversal skills for employability, and it stresses the importance of foreign language skills to the country’s future economic prospects. The development of TU4Dublin also runs contemporaneously with the implementation of the *Languages Connect* strategy²⁰, and TU4Dublin will develop its own languages strategy to ensure that it meet its internationalisation targets.

TU4Dublin will bring international engagement into all areas of its activities, into teaching and learning, research, and staff development. It will include sustainable international collaborations such as joint programmes, student and staff exchanges and the collaborative provision of academic and training programmes. Table 2.9 presents the principles that will underpin the internationalisation of TU4Dublin.

TABLE 2.9: PRINCIPLES UNDERPINNING TU4DUBLIN’S INTERNATIONALISATION

1	Internationalisation is a means to enhance the quality of the education, research and support functions of the university.
2	Internationalisation will support and complement the TU Curriculum Model: <ul style="list-style-type: none"> ▶ Student-centred ▶ Promoting real engagement ▶ Promoting quality through feedback from stakeholders ▶ Contributes to the development of graduate attributes.
3	Internationalisation will be integrated into core TU activities.
4	That internationalisation will be supported by the Digital Campus strategy and the use of technology to bridge distances and support remote collaboration and also the Languages Strategy to promote transnational employability.
5	Internationalisation will inform and ultimately enhance TU’s educational practice on an ongoing basis.

¹⁹ *Ireland’s National Skills Strategy 2025* (https://www.education.ie/en/Publications/Policy-Reports/pub_national_skills_strategy_2025.pdf)

²⁰ *Languages Connect: Ireland’s Strategy for Foreign Languages in Education 2017-2026* (https://www.education.ie/en/Schools-Colleges/Information/Curriculum-and-Syllabus/Foreign-Languages-Strategy/fls_languages_connect_strategy.pdf)

- 6 TU4Dublin will ensure that students enrolled on collaborative and transnational programmes which lead to TU4Dublin awards will receive an equivalent learning experience to that of students studying in Ireland, recognising the local context in which the programme is being provided.

Key internationalisation objectives of TU4Dublin

TU4Dublin's internationalisation objectives cover the curriculum, research and technology transfer, community engagement, regional development, staff, offshore activity and the international student experience. Each of these sets of objectives is summarised in turn below.

Internationalisation objectives: *curriculum*

In the area of *curriculum*, the internationalisation objectives are:

- ▶ To identify and specify learning outcomes with an international dimension, including developing global citizenship
- ▶ To ensure that curriculum design processes and the delivery of an academic quality enhancement system incorporates and supports the development of an international perspective
- ▶ To integrate international and cross-cultural perspectives within core disciplines
- ▶ To provide opportunities to enable staff and students of TU4Dublin to acquire an enhanced language capability so that they can study, research and work in international environments
- ▶ Develop skills that help students, graduates, researchers and staff to obtain employment in a global environment
- ▶ Provide training and supports in cross-cultural work practices
- ▶ Provide opportunities for staff and students of TU4Dublin to acquire enhanced language capability, in line with the targets for third level education set out in the *Languages Connect* strategy, to empower them to study, research and work within international environments.

Internationalisation objectives: *research and technology transfer*

In the area of *research and technology transfer*, the internationalisation objectives are:

- ▶ To attract qualified international undergraduate and postgraduate researchers and faculty to undertake high-quality research
- ▶ To contribute to the growth and sustainability of TU4Dublin's research activity
- ▶ To deepen TU4Dublin's research themes, clusters and strategy; and to reflect international and global issues, concerns and priorities, particularly in a European context
- ▶ To strengthen TU4Dublin's links with partner institutions through strategic alliances and networks and international research
- ▶ To promote technology transfer arising from international participation in enterprise support activities, business and innovation consortia and networks, as well as from institutional collaborations abroad

Internationalisation objectives: *community engagement*

In the area of *community engagement*, the internationalisation objectives are:

- ▶ To deepen TU4Dublin's community engagement activities through collaborative projects with universities and community networks and organisations abroad
- ▶ To ensure engagement with the worldwide community of TU4Dublin alumni

Internationalisation objectives: regional development

- ▶ To support foreign direct investment, and indigenous and overall economic development in Ireland, and in particular within the greater Dublin region
- ▶ To partner with international universities, organisations, regional bodies, networks and companies to enhance understanding and deepen interaction

Internationalisation objectives: *staff*

In the area of *staff*, the internationalisation objectives are:

- ▶ To extend international mobility to all TU4Dublin staff (academic and professional services) with a view to:
 - Promoting knowledge transfer and knowledge exchange
 - Using best practice to underpin university strategies
 - Deepening understanding between partner institutions
- ▶ To encourage and support TU4Dublin staff who wish to become involved in international activities
- ▶ To promote and encourage recruitment of international staff to academic and professional services positions

Internationalisation objectives: *offshore activity*

In the area of *offshore activity*, the internationalisation objectives are:

- ▶ To deliver programmes and activities abroad with partner institutions; and to continue to seek opportunities to extend the university's reach internationally
- ▶ To develop clear governance and related due diligence protocols together with related academic quality assurance processes to underpin this activity

Internationalisation objectives: the international student experience

In the area of *the international student experience*, the internationalisation objectives are:

- ▶ To offer each student an opportunity to undertake an international student experience outside Ireland in order to:
 - Gain experience in the international labour market
 - Improve understanding of other economies, cultures and societies
 - Develop specific capacities in areas such as language acquisition and cultural awareness
- ▶ To actively work with international associations such as International Association for the Exchange of Students for Technical Experience (IASTE)
- ▶ To use established models and programmes (such as Erasmus+) that support international mobility
- ▶ To provide an effective placement/experience coordination service to support TU4Dublin's international activities

See also

For data on student internationalisation, see **Table 1.5:** International students, full-time and part-time and **Table 1.6:** Erasmus and Exchange students, both on page 11

3. The support infrastructure of TU4Dublin

Chapter overview

This chapter describes elements of TU4Dublin's supporting infrastructure – including key technology, services and strategies that will enable the university to deliver on its vision, mission, ambitions and values.

- ▶ **3.1 TU4Dublin and the digital campus experience** – including a summary of the objectives of the digital campus strategy
- ▶ **3.2 Student development at TU4Dublin** – a summary of the range of student services that will be available
- ▶ **3.3 Professional services at TU4Dublin** – a summary of the professional services that will be available
- ▶ **3.4 TU4Dublin's People Strategy** – including the three key HR objectives:
 - To make TU4Dublin the university of choice for students and staff
 - To distinguish TU4Dublin for its investment in its people
 - To lead HR best practice for strategic change
- ▶ **3.5 TU4Dublin's three campuses** – an overview of the campuses at Grangegorman, Blanchardstown and Tallaght

3.1 TU4Dublin: a digital campus

The digital campus is a concept that has been designed to facilitate students who are seeking more flexibility in their learning journey, including the ability to work part-time, the convenience of remote access to learning resources at times that suit them, the ready connectivity and richness of online peer and mentor support on specific topics, and the ability to engage with a range of student support services in the digital environment.

The digital campus concept is also designed to meet the needs of the diverse range of TU4Dublin's student body, and it will play a key role in TU4Dublin, its importance being confirmed by its status as a foundation theme, see page 17.

TU4Dublin – a digital-first organisation

TU4Dublin will be a digital-first organisation, utilising data and digital tools to empower our people, enhance our working processes and enrich our academic programmes. The establishment of the TU4Dublin as a truly digital campus will be reflected in the emerging culture of the organisation and its high-performance learning and services environment, one that recognises the changing profiles of students, staff and all those with whom the university engages.

The digital campus will support student learning and empower academic staff to make the best use of the potential of digital tools and data to support high-quality teaching and learning, research and innovation. Of particular relevance to students will be a focus on a blended-learning environment at programme level, which will be supported by processes that are built around a 'smart campus' mindset that allow us to extend reach to those students who require a more flexible and online learning provision.

It will also provide the means by which academic schools and support services can realise the full functionality and potential of digital technologies, to create a unique, powerful, and comprehensive university experience that compares favourably with that of HEIs globally.

TABLE 3.1: TU4DUBLIN'S DIGITAL CAMPUS OBJECTIVES

Digital Campus Strategy objectives
▶ Create a unique, engaged, powerful and comprehensive experience for every student, on a par with the world's best performing, blended-learning higher education providers.
▶ Improve the total student experience – from the initial engagement when they are applying for programmes, through selection, registration and induction, learning, assessment, graduation and ongoing engagement following graduation.
▶ Offer flexible programmes that are exciting and attractive for students.
▶ Improve communication with, collaboration between, and socialisation among students, so leading to better retention and higher satisfaction levels.
▶ Support academic staff as they engage with students – through a transformative learning environment that combines active learning in the classroom, the studio, the laboratory, the workshop and in communities, together with outstanding student-centred, blended learning support.
▶ Enable student services staff to provide better support to students – by leveraging the functionality provided by digital technologies.
▶ Enable academic administration to better manage academic operations in line with our strategic initiatives – by leveraging the functionality provided by digital technologies.
▶ Enhance the ability to use learning analytics and other relevant data to support improvement in teaching and learning, research and student services.
▶ Help academics explore and implement new teaching techniques – using tools that will allow them to easily develop and share successful approaches and good practice.
▶ Enable dissemination of comprehensive and up-to-date information so that the approach to student welfare and the delivery of student services can be more effective and better coordinated.
▶ Make effective use of social media and other tools to transform the way we communicate with students so that they are better informed and can do their own problem solving, so reducing their dependence on administrative support for routine enquiries.
▶ Provide opportunities to strengthen the relationship with alumni, so enhancing professional and social networking benefits and the position of our graduates in the community.

3.2 Student development at TU4Dublin

The contribution that student development makes to the student experience

A diverse range of student development processes and supports are available to students across the three current institutes. These range from practical supports such as counselling and administrative services to social and leisure facilities offered via clubs and societies. TU4Dublin is particularly committed to having the best possible facilities in place for students to enhance their experience.

International research has shown that participation in extracurricular activities helps students develop in areas such as team working and leadership, which increase the breadth of the skills they have to offer as graduates and, of course, their employability.

A number of projects relating to student development are included in TU4Dublin's programme plan which will ensure that a range of developmental opportunities is available for an enhanced student experience.

Student administration services

A number of administrative supports facilitate the movement of students through the student life cycle, from recruitment to graduation. It is critical that applicants are provided with the supports and information to make the right choices in relation to programme choices. Student retention statistics demonstrate that facilitating students to make the right choice of programmes to suit their own interests and talents ensures success as they progress through their programme.

- ▶ **Admissions services:** TU4Dublin's Admissions services will ensure that current students and prospective students have the correct information on programmes and on the range of entry routes that are open to them so that they can achieve academic success.
- ▶ **Induction services:** as currently across the three institutes, there will be a range of induction services to introduce new students to everything from sports facilities to students union supports that are available to them.
- ▶ **International support:** international offices will provide recruitment and support services for new international students and will also provide opportunities to TU4Dublin students for study and placement abroad through Erasmus and other programmes.
- ▶ **Exams and assessment:** the exam units will ensure a smooth assessment process for all students and will support graduates through the provision of transcripts and verification of awards.

Student welfare services

TU4Dublin will provide a range of student welfare services that cater for the personal and health needs of students. These are summarised below.

- ▶ **Financial aid:** Increased fees and higher living costs put students under severe pressure and potentially affect their ability to continue their studies. TU4Dublin will work with students who are in need of such financial support. Significant funds are distributed annually through the HEA's Student Assistance fund.
- ▶ **Accommodation for students:** TU4Dublin will attract students from all over Ireland as well as in the region of 1,500 international students every year. Accommodation services will be available to help students find suitable living accommodation in Dublin. This will involve block booking of a number of student accommodation facilities across the city. The Grangegorman development will also provide additional accommodation for students.
- ▶ **Crèche and childcare supports for students:** IT Tallaght currently provides a first class crèche facility on campus, and this is a vital resource for many mature students who would not be able to attend classes without this provision. Students with children in the other sites benefit from financial assistance via specific provisions in the Student Assistance fund for qualifying students.
- ▶ **Medical centres, counselling and pastoral care:** Students encounter a number of challenges throughout their studies from family and relationship problems to mental health and addiction issues. TU4Dublin's medical centres, pastoral care and counselling services will provide confidential, professionally-run services.
- ▶ **Career Development for students.** TU4Dublin's Career Development Centre will empower students to develop their employability and make informed career decisions to reach their career potential. It will do this by embedding career development learning in the curriculum as well as providing one-to-one career coaching. The Centre will:
 - Support students to become critical thinkers in relation to their own careers
 - Enable students to understand their career motivation

- Provide students with information and training on occupational research and making professional applications
- Help students to build their digital career literacy as well as giving them practical strategies to network and perform optimally at interviews and assessments

Sports, clubs and societies

Participation in clubs and societies enhances the student experience of university and creates a sense of community, and students also enjoy health benefits from participation in sports. A number of national and international competitions are available for students to participate in and all three current institutes have been successful in such endeavours. TU4Dublin will offer sports scholarships and supports for students competing at a top level in their sport.

Across the three institutions there are over 100 societies in place covering a diverse range of pursuits for students, including drama, dance and student media. A number of the societies are closely linked to academic programmes and increase skills training in areas such as radio production, newspaper editing etc. All three institutes are actively involved in national competitions such as the National Society Awards. Many students develop leadership, financial and team building skills from participation in societies. Annual events such as the DIT Shurikon, (a gaming convention, attended by over 600 participants) allow students to gain real world skills in event management and planning, and students involved in such events have seen benefits in relation to increased employability from participation.

Extensive training is provided for student leaders, and through the LEAD module students can receive academic credit for the learning that takes place through their involvement in running student events.

Students' union

The students' unions represent all students across the three institutes. Through their democratic structures they provide opportunities for students to become active student leaders as class representatives, student councillors, and elected officers.

The students' unions provides structured leadership and volunteering training, and are also engaged nationally via the Union of Students in Ireland (USI). They have a critical role to play in influencing national policy in relation to student affairs.

The three students' unions are currently developing a model for a unitary autonomous students' union.

Ensuring access for all students

A key aim of TU4Dublin will be to ensure access for all students to education and to facilitate this through routes such as the Higher Education Access Route (HEAR), the Disability Access Route to Education (DARE) and other regional-specific admissions routes. Students entering via such routes will be supported through first class educational and learning supports provided by the access offices and disability services. Additional maths and academic writing supports, run in conjunction with academic units will also support students entering through non-standard entry routes.

The three institutes currently have the highest numbers of non-standard students in higher education in Ireland, and TU4Dublin has ongoing targets to increase these numbers annually.

Giving our first-year students a sense of belonging

Our support services combine their efforts to provide a semester-long orientation programme in first year which commences with a week-long introduction to our campuses, and to the facilities and supports that are available. The programme continues throughout the semester with appropriately timed opportunities for students to become more informed. Activities include meeting their year

tutor, acquiring study skills, joining a club or society and availing of advice from continuing students who act as mentors. The overall aim of the programme is to equip our first-years with the knowledge and skills to meet the challenges that the transition to college presents.

3.3 Professional services at TU4Dublin

The objective of TU4Dublin’s professional services teams is to support academic colleagues and students in the delivery of a learning and teaching environment that can attract, retain and graduate students. Professional services and technical staff across the three institutes have worked together since 2012 to develop a planning process for the integration of activities to support TU4Dublin. Through a number of workshops and working groups the departments have developed an understanding of the practices and structures in place and have worked to develop a vision for their services TU4Dublin.

While structures and reporting lines vary across the current institutes, the objectives and values are shared with an emphasis on enhancing the staff and student experience of the organisation through the provision of excellent professional services.

The following table summarises the key activities that fall within each of the proposed professional service areas of TU4Dublin.

TABLE 3.2: KEY ACTIVITIES WITHIN PROFESSIONAL SERVICE AREAS

Professional service area	Key activities
Finance	<ul style="list-style-type: none"> ▶ Budget planning and allocation ▶ Accounting services ▶ Income collection ▶ Procurement ▶ Payroll ▶ Student fee setting and collection ▶ Financial reporting
Human Resources	<ul style="list-style-type: none"> ▶ Recruitment ▶ Resourcing and benefits ▶ Employee relations ▶ Health and safety ▶ Pensions
Student and Academic Administration	<ul style="list-style-type: none"> ▶ Recruitment ▶ Enrolment and admissions ▶ Registrations ▶ Exams ▶ Reporting
Library and Information Services	<ul style="list-style-type: none"> ▶ Extensive print and online books, journals, databases ▶ Large numbers of study spaces ▶ Highly educated and experienced staff who are embedded in teaching and research activities ▶ A welcoming culture that seeks to proactively identify and implement new ways of doing things
Access and Civic Engagement	<ul style="list-style-type: none"> ▶ Access services ▶ Disability services ▶ Students learning with communities ▶ Engagement outreach

Campus Life	<ul style="list-style-type: none"> ▶ Medical centre ▶ Careers development ▶ Pastoral care ▶ Academic writing and maths learning centres ▶ Sports, clubs and societies
Estates and Buildings Support	<ul style="list-style-type: none"> ▶ Planning and management of its buildings and facilities
Strategic Development Services	<ul style="list-style-type: none"> ▶ Planning/strategic policy
Staff Development	<ul style="list-style-type: none"> ▶ Staff training and development ▶ Staff induction ▶ PMDS
International Office	<ul style="list-style-type: none"> ▶ Erasmus ▶ International student recruitment ▶ Student support
ICT Services	<ul style="list-style-type: none"> ▶ Strategic planning, project delivery, and compliance for ICT services ▶ Enterprise architecture design, build, and maintain ▶ Secure network and communication services ▶ Customer service delivery, classroom technologies
Secretary's Office	<ul style="list-style-type: none"> ▶ Institute Secretary ▶ Freedom of information ▶ General data protection regulation
Public Affairs and Communications	<ul style="list-style-type: none"> ▶ Public relations ▶ Media/press ▶ Website management and support ▶ Branding ▶ Print and design services
Learning, Teaching and Technology Centre	<ul style="list-style-type: none"> ▶ Academic professional development ▶ Promoting teaching excellence ▶ Scholarship and innovation

Information communication and technology services

Information communication and technology (ICT) services will underpin all student and staff activities and will be critical to TU4Dublin. The Digital Campus strategy provides a long-term high-level roadmap to the development of these services, and this ongoing work is supported by the participation of ICT staff in a number of TU4Dublin projects. Significant work was completed as part of the work with Baker Tilly Ryan Glennon and merger planning processes, and this provided the foundation for work captured in the current *Programme Plan*. Staff from ICT units across the three institutes are working together on a number of projects to enhance and integrate current services in place across sites. A number of critical student and staff policies are under review and will be integrated into single policies for designation date.

The long-term plan for alignment of all technologies will take approximately two to five years, with colleagues in business units assisting in collating business requirements for TU4Dublin's end state ICT infrastructure. This work is supported by ongoing projects collating contracts and licensing arrangements and by close collaboration between business units, suppliers and procurement services.

Meanwhile ICT departments are working towards a unified statement of service in relation to ICT services across sites and are defining access arrangements for staff and students. The development of a single roadmap is under way, and this will identify timelines towards integration of systems and

services. Other projects are in development to provide connectivity across sites, unified communications and common support technologies. Through collaborative working a number of staff training strategies have been identified that will enable ICT strategy and empower staff through personal development. In total approximately ten working projects will be under way prior to September 2018.

Library services

Library services are integral to the learning, teaching, research and engagement activity of the three Institutes. Library resources, print and online, are heavily used by staff and students alike; library spaces are important as informal learning spaces and as locations for academic writing centres, maths learning support centres and assistive technology rooms. Library staff teach digital and information skills, liaise with academic staff, provide online support material and respond to information requests. Researchers are supported by Arrow, the shared institutional repository, and by bibliometric analysis tools (both managed by library staff). Outreach to schools and the local community is provided via access for second level students preparing for state examinations, through the hosting of an international short story competition, as well as numerous local and international exhibitions.

Libraries have changed and continue to change at an unprecedented rate, so that the resources, spaces and services we provide can continue to meet the changing needs of our users in innovative ways. Existing plans for new or refurbished spaces at all three institutes and the new digital campus all offer great opportunities for further developments.

Learning, Teaching and Technology Centre (LTTTC)

The LTTTC will continue to promote and recognise teaching excellence in TU4Dublin. It will work to raise the profile of teaching and to maintain the strong reputation for teaching that fosters student success. The Centre currently provides a range of academic professional development opportunities, from short training workshops and webinars to postgraduate CPD modules leading to masters' programmes. These will be extended in the future to enable academic staff, at whatever stage of their career, to engage in high-quality, practice-based CPD that is recognised within a national professional development framework.

3.4 TU4Dublin's People Strategy

TU4Dublin's People Strategy builds on and draws from work already completed, or in progress, taking the best of the experiences from the three amalgamating institutions. The strategy will focus on the additional initiatives and benefits that TU4Dublin can offer, over and above those that the three individual institutes can offer individually or collectively. It is designed to support the mission, vision and values of TU4Dublin and focuses on three key objectives:

- ▶ To make TU4Dublin the university of choice for students and staff
- ▶ To distinguish TU4Dublin for its investment in its people
- ▶ To lead HR best practice for strategic change

Each of these objectives is explored in more detail immediately below.

The university of choice for staff

TU4Dublin is committed to supporting a positive challenging and stimulating working environment where all staff and students are treated with dignity and respect and are supported to engage with their work through support for the following:

- ▶ A positive work and physical environment
- ▶ Equality, diversity and inclusion

- ▶ Staff engagement and retention
- ▶ Staff wellbeing
- ▶ Staff recognition

Positive work environment

TU4Dublin is committed to promoting equality of opportunity, diversity and inclusion for all employees. It is committed to being an employer of choice and to providing an inclusive environment where everyone feels they are valued, treated fairly, and respected regardless of difference.

TU4Dublin is committed to supporting a positive working environment where all staff are treated with dignity and respect and are supported to engage with their work and with their colleagues in the TU4Dublin community. The People Strategy recognises the changing nature of the 21st century workplace, not least because of the impact of technology, self-service, remote working (including location-independent working) and the need for flexibility in employment arrangements. The People Strategy recognises that when, how and where people work is changing. We support our staff in their work–life balance choices, and seek to accommodate different and flexible working patterns.

Equality, diversity and inclusion

Our People Strategy will support the development of a compelling *Equality, Diversity and Inclusion Strategy* for TU4Dublin. We will ensure that equality is considered, measured and incorporated into all decision-making forums to ensure we complete the implementation of the recommendations of the HEA’s *Expert Report on Gender Equality* (2016).

TU4Dublin will implement changes to foster a culture of gender balance, and to improve processes and structures that embed gender-balance and equality of opportunity for all, at all levels within the organisation.

We are committed to supporting gender equality, including through Athena SWAN accreditation.

The staff of TU4Dublin have a right to be treated with dignity and respect and we are committed to ensuring that staff have a positive and safe working environment, which is free from all forms of bullying, harassment and discrimination.

Staff engagement and retention

TU4Dublin is committed to fostering a culture of open and supportive staff engagement and staff empowerment by maintaining good internal communications and promoting formal, informal and regular systems of staff feedback, as a way of promoting organisational improvement.

TU4Dublin is committed to supporting staff so that they engage with their work and with a community of fully informed colleagues who are inspired and supported to invest their talents and abilities within TU4Dublin.

TU4Dublin will consult with staff on the periodic implementation of targeted engagement initiatives. Data gathered through these surveys will be used to inform the implementation and continuous improvement of the People Strategy.

The Performance Management Development system (PMDS) is identified as a key process that will encourage staff to share challenges, aspirations and development opportunities, and also to explore promotion and career progression within TU4Dublin rather than seeking such opportunities elsewhere. This is a two-way process and staff are encouraged to use PMDS to provide feedback to TU4Dublin about their experiences. PMDS will be reviewed to meet the needs of TU4Dublin.

Staff wellbeing

It is the responsibility of TU4Dublin to provide a safe place of work for all staff, and we are committed to identifying and addressing behaviours, policies and practices that adversely affect the health and wellbeing of our staff and are committed to continuously exploring how we can best support staff wellbeing.

TU4Dublin is committed to providing an inclusive and supportive environment with regard to personal situations and the work–life balance of staff – as a way of encouraging staff to remain part of TU4Dublin in the short, medium and long term.

We will promote staff welfare policies and the employee assistance programme for TU4Dublin. We will work to support the development of a work–life balance policy for TU4Dublin, recognising that some family friendly policies are already in place.

Staff recognition

TU4Dublin acknowledges the value of recognising the contribution that staff members make and the part this plays in staff retention. As part of our People Strategy, TU4Dublin will constantly review our practice in recognition initiatives and will explore the introduction of such initiatives where they benefit staff members and TU4Dublin as a whole. Currently DIT, ITT and ITB have a number of initiatives in place. To acknowledge the contribution that our staff make to the success of TU4Dublin, we will support a culture of feedback and recognition within formal and informal settings. A number of recognition schemes currently exist and will be consolidated within TU4Dublin. The strategy provides an opportunity to explore further initiatives, such as opportunities for sabbatical leave and the introduction of recognition schemes for outstanding achievement.

Investment in people

TU4Dublin will attract and recruit the highest calibre of staff to create a diverse and high performing workforce and empower them to fulfil their potential with learning and development opportunities that are flexible, relevant and accessible to every staff member.

Attract and select from a diverse candidate pool

TU4Dublin is committed to attracting, recruiting, developing and retaining the highest calibre of staff, to build a multidimensional, diversified and inclusive workforce reflective of the wider community. We will show this commitment by the investment and consideration we give prospective employees from initial contact, through an online application process that is easily accessible, streamlined and direct, and allows candidates an opportunity to see the career that TU4Dublin has to offer them.

We recognise that everyone has a contribution to make to our community and a right to equal treatment. We will adopt positive policies to promote equality of opportunity. We aim to ensure that no job applicant, staff member, volunteer or organisation/individual for whom we provide services will be discriminated against by us on the grounds of gender, civil status, family status, age, disability, race, sexual orientation, religious belief, or membership of the Traveller community.

To ensure we attract the best talent and support equality of opportunity, diversity and inclusion, we are committed to implementing recruitment and selection practices that are free from any inherent or potential bias. We will promote good practice and accountability by training managers and employees involved in these processes.

Career development

The ongoing process of education and development enables staff to maintain their competence and increase their proficiency and expertise. TU4Dublin supports continuing staff development (CSD) covering the widest range of education and development, recognising and understanding the value

of staff members' skills, knowledge and behaviour, and how these underpin our success. We are committed to the promotion of an ethos that supports all staff to fulfil their professional and academic potential. We will support our people to develop the competencies they require for their current roles and to develop agility and adaptability for future career progression.

The People Strategy comprehends the development of a competency based framework for all staff, which will be critical to support recruitment, promotion, leadership development, induction and probation, performance management and leadership development.

Leadership development

All staff who are responsible for managing people and projects will be supported through a *Leadership Development Programme* that will help them become more effective leaders of their people and projects.

Talent management

TU4Dublin will develop an overarching talent management strategy to nurture talent early and to provide reassurance to all staff that they will be supported in their career progression and development. This will apply particularly to underrepresented groups.

Knowledge management: mentoring and coaching

A key component of our People Strategy in the area of knowledge management will be the establishment of mentoring and coaching frameworks. These programmes will primarily recruit staff who are due to retire soon to act as mentors or coaches to new or mid-career staff. The objectives of the scheme will be to give assistance on any issues of concern, to improve performance and satisfaction levels, to pass on understanding of key decision-making within TU4Dublin, to build relationships, and to help those being assisted to manage the integration of job, career and personal goals.

HR best practice for strategic change

TU4Dublin will lead HR best practice by ensuring the initiatives, protocols and policies underpinning our People Strategy will empower our leaders and managers and facilitate implementation. TU4Dublin will ensure positive engagement with the external regulatory environment, with our social partners, and with information technology to drive change.

HR values

Every staff member is responsible for living our HR values in what we do and how we interact both inside and outside TU4Dublin.

TU4Dublin will design its policies and practices to support and protect these values.

- ▶ We value, respect, trust and support each other
- ▶ We listen and value diverse views
- ▶ We learn by challenging and sharing our experience
- ▶ We value openness, creativity and honesty
- ▶ We take pride in recognising our achievements and those of others
- ▶ We work with integrity and accountability

We make work meaningful and work to professional standards.

HR model and decision-making

It is our aim to ensure that managers will have easy access to a set of simplified HR procedures that underpin policy and ensure that they are empowered to manage their staff within a devolved HR

model. Furthermore, investment in the infrastructure to facilitate human resource planning and management is recognised as a priority.

TU4Dublin will support managers to understand the range of HR policies, procedures, processes and systems that will enable them to implement good practice, make effective decisions, and treat all staff equitably and in a caring and supportive manner that fosters a positive working environment.

We will ensure our staff have input into the development and revision of HR policies, interventions, supports and initiatives. In developing and reviewing HR policy, we will use collaborative working teams across TU4Dublin to ensure ownership, understanding and effective policy implementation.

The strategy will focus on the delivery of a Data Management Plan for ongoing monitoring and auditing of equality, diversity and inclusion at every level in TU4Dublin and will inform our future recruitment strategy.

HR technology

Effective HR technology is integral to the effective management of our people, and HR data analytics is a critical element for decision making.

Our HR information System will be a key enabler to deliver HR changes, to share information and inform HR policy and the People Strategy, which will remain as an iterative process. Managers need autonomy to make decisions on staff matters and HR information must be easily accessible, accurate and consistent.

The People Strategy will endorse prioritisation of, and investment in, consistent upgrade of the core HR information system to enable and facilitate managers to deliver critical HR initiatives such as workforce planning and management of staff. This will allow maximum opportunities for employee self-service and manager self-service, both of which will be streamlined and automated to provide access to the most up-to-date information possible.

Consistent, reliable, responsive HR reporting will empower and enable managers to plan effectively and manage existing resources in a caring and responsive manner.

3.5 TU4Dublin's campuses

TU4Dublin will ultimately be located at Grangegorman (following relocation from multiple city centre sites), Blanchardstown and Tallaght. Coherent masterplans have been developed for each of these campuses, including provision for future growth. Taken together, the current estate is at lower limits of norms for space per student, especially given the nature of provision, and for that reason can be viewed as providing a very efficient operation. Significant developments are under way on all three campuses.

- ▶ The consolidation of the existing DIT activities is continuing at the Grangegorman campus
- ▶ There is continuing growth and development at both the Blanchardstown and Tallaght campuses
- ▶ There is rationalisation and transition to common operating systems across all three campuses
- ▶ There is increased joint procurement and contract rationalisation of goods and services

Grangegorman campus

DIT has been engaged in a process of continuing consolidation of campus locations as it moves towards the new campus of Grangegorman. In addition to numerous smaller sites, significant campus buildings remain at Aungier St, Bolton St, Cathal Brugha St and Kevin St. Building work has commenced for two quads at Grangegorman, with completion scheduled in time for the start of the 2020 academic year. Additional quads are in planning stages and are expected to be completed by the end of 2022 / start of 2023. The development of the Grangegorman campus is managed through a separate statutory agency, the Grangegorman Development Agency (GDA). The GDA is separately

funded through the Department of Education and Skills to manage the development of the site on behalf of DIT, the Department itself and the Health Service Executive (HSE). The Grangegorman campus masterplan has effect through an approved statutory Strategic Development Zone planning scheme.

On the Grangegorman campus basic site-wide infrastructure has been installed and existing protected structures were brought into use for approximately 1,000 students in 2014. In 2016 the newly built Greenway Hub research and business incubation building was opened. Construction has just commenced of the Central and East Quads. These will open in summer 2020, and will provide for the relocation of 50 per cent of the student body to a new purpose-built provision of 52,000m².

Plans are advanced for the construction of the Academic Hub, incorporating the first phase of a central library provision, and the West Quad, which will support the relocation of an additional 25 per cent of the student body. So, by 2022 75 per cent of the existing DIT student body will be consolidated in new purpose-built accommodation, with the balance of Bolton St students having direct access to Grangegorman via Broadstone Gate.

FIGURE 3.1: AERIAL VIEW OF GRANGEGORMAN



Options for the procurement of an initial tranche of on-campus student accommodation for approximately 1,200 students are currently being explored.

Tallaght campus

The original IT Tallaght building was built in 1992 and extended in 1999–2001. A Student Union building was constructed in 2005 and extended in 2009. A campus crèche opened in 2009. The Synergy Incubation Centre was completed in 2006 and the building was extended by the addition of the Centre of Applied Science for Health in 2012. An off-campus teaching facility, Premier House, was opened in 2015. IT Tallaght is progressing with the construction of a Sports Science, Health and Recreation building which is due for completion in 2020. A new facility, to be procured under the current third-level PPP scheme, will provide additional teaching space in the areas of Culinary Arts, Hospitality & Tourism and Mechanical & Electronic Engineering, and is due for completion in 2021.

FIGURE 3.2: AERIAL VIEW OF IT TALLAGHT



Blanchardstown campus

The main buildings on the Blanchardstown campus were completed between 1999 and 2002 providing 21,000m² of space. A Student Services building is currently in construction for completion in 2018. Procurement of new space under the third-level PPP will expand its general teaching facilities to support growth in student numbers across a range of disciplines. It is expected the new building will open in 2021.

FIGURE 3.3: AERIAL VIEW OF IT BLANCHARDSTOWN



4. Meeting the Criteria of the Technological Universities Act 2018

Chapter overview

This chapter sets out how TU4Dublin meets each of the criteria for designation specified in section 28 of the Technological Universities Act 2018.

The figures used for student numbers, staff percentages etc. are those that relate to the three institutions as at March 2018.

4.1 Student profile criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>1.1 S.28 (1) (a) of the students of the applicant institutes registered on a programme that leads to an award to at least honours bachelor degree level—</p> <p>(i) at least 4 per cent are research students registered on a programme which leads to an award to at least masters degree level, and</p>	<p>The total number of students is 17,284 of whom 727, 4.2 per cent are research students.</p>
<p>1.2 (ii) at least 30 per cent fall within one or more than one of the following classes of students:</p> <p>(I) students who are registered on a programme that is provided on a flexible basis, such as by means of part-time, online or distance learning;</p>	<p>The 30 per cent threshold is exceeded for sections (II) and (III).</p> <p>The total number of students is 17,284 of whom 3,042, 18 per cent are registered part-time, distance education or e-learning programmes</p>
<p>(II) students who are registered on a programme that has been designed, and is being delivered, with the involvement (which shall be construed in accordance with subsection (2)(b)), of business, enterprise, the professions, the community, local interests in the region in which the campuses of the applicant institutes are located;</p>	<p>The total number of students is 17,284 of whom 6,132, 36 per cent are registered on programmes so defined.</p>
<p>(III) students who are not less than 23 years of age.</p>	<p>The total number of students is 17,284 of whom 5,446, 32 per cent are not less than 23 years of age.</p>
<p>1.3 (b) the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university to increase within 10 years of the date of the making of an order under <i>section 36</i>, from at least 4 per cent to at least 7 per cent, the proportion of their research students referred to in paragraph (a)(i);</p>	<p>TU4Dublin has a detailed plan to meet the research capacity requirements described here.</p>

4.2 Staff profile criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>2.1 S.28(1) (c) of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level—</p> <p>(i) at least 90 per cent hold a masters degree or doctoral degree,</p>	<p>Currently, 90 per cent of staff hold a masters or a doctoral degree.</p>
<p>(ii) at least 45 per cent hold—</p> <p>(I) a doctoral degree, or</p> <p>(II) subject to subparagraph (iii), a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably be viewed by the advisory panel as equivalent to a doctoral degree, and</p>	<p>Currently, 45 per cent of staff hold a doctoral degree or equivalent.</p>
<p>(iii) not more than 10 per cent hold only the qualifications referred to in subparagraph (ii)(II);</p>	<p>Currently 1 per cent hold only the qualifications so described.</p>
<p>2.2 (d) the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university, to increase, within 10 years of the date of the making of an order under <i>section 36</i>, from at least 45 per cent to at least 65 per cent, the proportion of their full-time academic staff referred to in <i>paragraph (c)(ii)</i>;</p>	<p>Currently 45 per cent of staff possess a doctoral degree or equivalent.</p> <p>TU4Dublin has a detailed plan to increase the proportion of full-time academic staff who will meet this requirement.</p>
<p>2.3 S.28 (1) (e)...Of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80 per cent hold a doctoral degree ...</p> <p>(i) The provision of a programme that leads to an award at doctoral degree level, and</p>	<p>Currently, 95 per cent of such full time academic staff hold a doctoral degree</p>
<p>(ii) The conduct of research;</p>	<p>Currently, 95 per cent of such full time academic staff hold a doctoral degree</p>
<p>2.4 S.28 (1) (f) (i)...Each of the full time academic staff of the applicant institutes engaged in the supervision of students registered on a programme that leads to an award to doctoral degree level ...</p> <p>(i) Holds –</p> <p>(I) A doctoral degree, or</p> <p>(II) a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably be viewed by the advisory panel as equivalent to a doctoral degree, and</p>	<p>Currently, 96 per cent of such full time academic staff hold a doctoral degree</p> <p>Currently, 4 per cent of such full time academic staff hold a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates</p>
<p>(ii) has a record of continued conduct of research in an area relevant to the programme;</p>	<p>Currently 100 per cent of such full time academic staff have such a record.</p>

4.3 Research activity criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>3.1 S.28 (1) (g) In respect of not less than 3 fields of education ...</p> <p>(i) The applicant institutes provide programmes that lead to awards to doctoral degree level, and</p> <p>(ii) the academic staff and students of the applicant institutes conduct research;</p>	<p>Programmes leading to doctoral degree level are provided in the following 6 fields, in all of which academic staff and students conduct research:</p> <ul style="list-style-type: none"> ▶ Arts and Humanities ▶ Social Sciences, Journalism and Information ▶ Business, Administration and Law ▶ Natural Sciences, Mathematics and Statistics ▶ Information and Communication Technologies ▶ Engineering, Manufacturing and Construction
<p>3.2 S.28(1) (i) all programmes provided by the applicant institutes that lead to an award to doctoral degree level comply with any policy relating to doctoral education as may be agreed from time to time between An tÚdarás and the Qualifications and Quality Assurance Authority of Ireland following consultation with bodies representing the interests of an institute, a technological university or a university specified in paragraphs (a) to (d) of section 4(1) of the Universities Act 1997;</p>	<p>Each institute in the TU4Dublin alliance is compliant with associated procedures relating to quality assurance regarding the provision and award of doctoral degrees as required by the Qualifications and Quality Assurance Authority of Ireland. Transitional arrangements are provided in s.61(1)(2), and ss.63,64 of the <i>Technological Universities Act (2018)</i>.</p>
<p>3.3 S.28 (1) (j) The applicant institutes have a plan that demonstrates to the satisfaction of the advisory panel that it would have the capacity, as a technological university to increase within 5 years of the date of making of an order under section 36, from at least 3 to at least 5, the fields of education referred to in paragraph (g);</p>	<p>Programmes leading to doctoral degree level are provided in 6 fields of education.</p>

4.4 Engagement criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>4.1 S.28 (1) (h) in relation to a programme referred to in paragraph (g), the applicant institutes demonstrate, to the satisfaction of the advisory panel—</p> <p>(i) that they carry out innovation activity and conduct research to a high standard, and</p> <p>(ii) that the innovation and research has positive social and economic effects on business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located;</p>	<p>Evidence to support this is contained in <i>The Socio-Economic and Cultural Impact of TU4Dublin</i> (included as an ancillary document with this application)</p> <p>Evidence to support this is contained in <i>The Socio-Economic and Cultural Impact of TU4Dublin</i> (included as an ancillary document with this application)</p>
<p>4.2 S.28 (1) (k) The applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time it applies under <i>section 29</i> for an order under <i>section 36</i>, the capacity to effectively perform the functions of a technological university and in particular demonstrates ...</p> <p>(ii) That they have strong links with business, enterprise, the professions and other stakeholders in the region in which the campuses of the applicant institutes are located</p>	<p>Evidence to support this is contained in <i>The Socio-Economic and Cultural Impact of TU4Dublin</i> (included as an ancillary document with this application)</p>

4.5 Governance criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>5.1 S.28 (1) (k) (i)...The applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time it applies under <i>section 29</i> for an order under <i>section 36</i>, the capacity to effectively perform the functions of a technological university and in particular demonstrates ...</p> <p>that they have integrated, coherent and effective governance structure in place concerning academic, administrative and management matters,</p>	<p>TU4Dublin’s governance structures will consist of a unitary Governing Body and a unitary Academic Council which will ensure integrated, coherent and effective governance of academic, administrative and management matters.</p>
<p>5.2 S.28 (1) (k) (iii) ...The applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time it applies under <i>section 29</i> for an order under <i>section 36</i>, the capacity to effectively perform the functions of a technological university and in particular demonstrates ...</p> <p>(iii) that they have, under section 28 of the Act of 2012, established procedures in writing for quality assurance in relation to which –</p> <p>(I) no notice has been furnished by the <i>Qualifications and Quality Assurance Authority of Ireland</i> under section 36(1) of the Act of 2012, or</p> <p>(II) approval has not been withdrawn under section 36 of that Act,</p>	<p>Each Institution has had its QA procedures approved by the QQI under section 28 of the Act of 2012.</p> <p>No such notice has been furnished by the Qualifications and Quality Assurance Authority of Ireland under s.36(1) of the Qualifications and Quality Assurance of Ireland Act (2012) to the applicant institutes.</p>
<p>5.3 S.28 (1) (k) (iv) ...The applicant institutes ...</p> <p>develop and have procedures in place for the development of programmes that respond to the needs of business, enterprise, the professions and other stakeholders in the region in which the campuses of the applicant institutes are located,</p>	<p>TU4Dublin will develop programmes under the direction of its Governing Body and Academic Council, and will ensure that they respond to the needs of business, enterprise, the professions and other stakeholders in the region in which the campuses of the applicant institutes are located.</p>

4.6 Internationalisation criteria

Legislative criteria	How TU4Dublin meets the criteria
<p>6.1 S.28 (1) (k) (v) (I) ...The applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time it applies under <i>section 29</i> for an order under <i>section 36</i>, the capacity to effectively perform the functions of a technological university and in particular demonstrates ...</p> <p>that they –</p> <p>(I) provide opportunities for staff and students of the applicant institutes to teach, learn or conduct research at institutions that provide higher education outside the State, or to obtain relevant work experience outside the State,</p>	<p>There are currently over 800 international agreements in place offering such opportunities, which in 2017/18 were availed of by over 650 students and staff.</p>
<p>6.2 (II) provide opportunities for staff and students of institutions that provide higher education outside the State to teach, learn or conduct research at the applicant institutes, and</p>	<p>There are currently over 800 international agreements in place offering such opportunities, which in 2017/18 were availed of by over 1,500 students and staff.</p>

6.3 (III) collaborate with institutions that provide higher education outside the State, including on joint research projects and for the purpose of provision of programmes.

There are currently over 800 international agreements in place offering such opportunities to students and staff.

5. The financial viability of TU4Dublin

Chapter overview

This chapter sets out the basis for establishing financial viability of the proposed Technological University upon granting of an order under section 36 of the Technological Universities Act 2018. It does this by:

- ▶ Showing the financial projections of income and expenditure of the TU4Dublin partner institutions based on the Higher Education Authority budgetary templates for 2018; this is presented in the form of a TU4Dublin Consolidated Programme and Budget Financial Model 2018
- ▶ It presents a financial overview of the TU4Dublin Programme of Work, with costs projected against each of the HEA's cost centre categories
- ▶ It describes the constraints and assumptions under which the financial projections are made

5.1 TU4Dublin's financial resources and sustainability

The financial viability of TU4Dublin is based on figures consolidated across the three institutions, with projected figures for future years based on current figures. In the future, however, it should be noted that TU4Dublin will require a new funding model more appropriate to the requirements of a technological university.

TU4Dublin consolidated programmes and budgets 2018

The consolidated financial details contained here are based on an aggregation of the individual programmes and budgets 2018 prepared by DIT, ITT and ITB respectively and which are returned to the Higher Education Authority on an annual basis.

The TU4Dublin Consolidated Programme and Budget 2018 projects a balanced budget position to the year 2021/22 as reflected in the summary table below.

FIGURE 5.1 – TU4DUBLIN ALLIANCE CONSOLIDATED FINANCIAL BUDGET TO 2021/22

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
FINANCIAL OVERVIEW	Audited €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000
Income	227,101	230,662	231,553	236,476	239,452	241,089	241,987
Expenditure	217,647	220,490	229,910	235,875	238,890	239,740	239,971
Exceptional Capital Expenditure		9,158	0	0	0	0	0
Surplus/Deficit	9,454	1,014	1,643	601	562	1,348	2,016

Increases in revenue relate to increased student numbers impacting grant allocations and student contributions. There is no provision made for incremental revenues as a result of achieving designation as a technological university.

Similarly, incremental costs that may arise as a result of achieving designation are not reflected in the consolidated budget. In so far as these costs have been identified and can be estimated they are shown below in section **5.2 Programme financial overview**. Otherwise they will be referenced in section **5.3 Financial projections, assumptions and constraints**.

The reduced surplus reflected in 2018/19 and 2019/20 reflects modest increases in state grant and tuition fees in line with projected student growth numbers. Coupled with increases projected for pay restoration there is a reduced surplus reflected within these two years.

Further detail of Income and Expenditure analysis projected to 2021/22, including assumptions can be found in the **TU4Dublin consolidated financial summary** on page 74.

TU4Dublin consolidated student number growth

FIGURE 5.2: TU4DUBLIN ALLIANCE CONSOLIDATED STUDENT NUMBERS TO 2021/22

Student Numbers	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Full Time Enrolments Undergraduate	18,236	18,001	17,859	18,103	18,289	18,444
Full Time Enrolments Postgraduate	1,164	1,171	1,427	1,630	1,677	1,681
Part Time Enrolments Undergraduate	6,947	6,050	6,116	6,179	6,208	6,239
Part Time Enrolments Postgraduate	1,804	2,090	2,206	2,352	2,354	2,356
Remote Enrolments Undergraduate	259	345	359	373	378	384
Remote Enrolments Postgraduate	60	78	83	89	91	93
TOTAL	28,470	27,735	28,050	28,726	28,996	29,198

Student numbers reflect the consolidation of projections across the TU4Dublin partners. They are conservative projections and do not reflect any potential growth in student numbers arising from technological university designation.

- ▶ Student numbers increase from 27,735 in the current year 2017/18 to 29,198 in 2021/22, representing a 5.3% increase
- ▶ This comprises increases within categories of student from 2017/18 as follows:
 - Full-time enrolments – 5.0 per cent increase
 - Part-time enrolments – 5.6 per cent increase
- ▶ This comprises increases within categories of award from 2017/18 as follows:
 - Undergraduate – 2.8 per cent increase
 - Postgraduate – 28.3 per cent increase

Assumptions

Whole Time Equivalent (WTEs) of part-time student numbers based on credits earned per course.

TU4Dublin consolidated staff numbers

FIGURE 5.3: TU4DUBLIN ALLIANCE CONSOLIDATED STAFF NUMBERS TO 2022

Staff Numbers	31 Dec 2017	31 Dec 2018	31 Dec 2019	31 Dec 2020	31 Dec 2021	31 Dec 2022
Academic and Research	1,411	1,475	1,479	1,483	1,485	1,486
Professional, Management & Support	1,000	1,041	1,043	1,042	1,042	1,042
TOTAL	2,411	2,516	2,522	2,525	2,527	2,528

- ▶ This represents an overall increase of 4.8 per cent over 5 years
- ▶ Academic staff increases also include projections relating to increased research activity
- ▶ Academic and research posts account for approximately 59 per cent of total staff, with professional services posts at approximately 41 per cent.

Assumptions

Current cohort of staff working towards achieving Technological University designation are included in projections, with an assumption that the related costs will continue to be funded.

TU4Dublin consolidated financial summary

FIGURE 5.4: TU4DUBLIN ALLIANCE CONSOLIDATED FINANCIAL SUMMARY TO 2021/22

FINANCIAL SUMMARY	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	Audited €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000
Income							
State grant	91,986	88,439	96,197	99,940	102,003	102,892	103,125
Tuition fees	45,925	36,946	38,768	39,464	40,284	41,110	41,943
Student registration charge	46,358	49,558	49,298	49,518	49,903	50,209	50,428
Amortisation of capital grants	11,901	11,693	11,892	11,914	11,935	11,957	11,980
Research grants and contracts	17,073	17,143	18,653	18,946	18,952	18,959	18,967
Other income	11,388	24,587	14,389	14,334	14,010	13,594	13,173
Student support	1,949	1,936	2,024	2,028	2,032	2,036	2,040
Interest income	256	76	54	54	54	54	54
Ancillary activities	265	284	278	278	278	278	278
Total income	227,101	230,662	231,553	236,476	239,452	241,089	241,987
Expenditure							
Pay	152,724	155,516	161,766	167,746	170,739	171,396	171,427
Non pay	52,517	52,765	56,120	56,082	56,080	56,251	56,427
Depreciation	12,406	12,209	12,024	12,047	12,070	12,094	12,118
Exceptional capital expenditure	–	9,158	–	–	–	–	–
Total expenditure	217,647	229,648	229,910	235,875	238,890	239,740	239,971
Operating Surplus/Deficit	9,454	1,014	1,643	601	562	1,348	2,016

Overview and assumptions

- ▶ State Grant is calculated by consolidating relevant grants awarded to TU4Dublin partner institutes.
- ▶ Tuition Fees are calculated by consolidating relevant grants awarded to TU4Dublin partner institutes.
- ▶ State Grant unit of resource notified for 2018 will remain at the same level for the period of projections from 2018/19 to 2021/22 inclusive
- ▶ The RGAM funding mechanism will not change for period 2018/19 to 2021/22
- ▶ No impact of performance funding arrangements have been included
- ▶ There will be no change to the current Level 6/7/8 tuition fee levels for period 2018/19 to 2021/22 (Levels 6 and L7 €250, Level 8 €819)
- ▶ There will be no change to the current level of student contribution for period 2018/19 to 2021/22 (€3,000)
- ▶ Conservative assumptions regarding student growth deliver minor increases in tuition fees

- ▶ Devolved Grant is not provided for or included in the future consolidated projections (note some devolved grant figures may be included if received to date as part of Audited or Actual figures to date)
- ▶ There is no provision for Part M/Public Access Building Works
- ▶ Pay includes budget figures for full pay restoration as agreed with social partners. In conjunction, there is an assumption of partial recovery from the HEA by way of recurrent grant.
- ▶ Superannuation is calculated in the normal way based on retention of deductions from relevant staff
- ▶ There is no provision for income is included based on achieving technological university designation
- ▶ There is no provision for increased cost efficiencies is included based on achieving technological university designation
- ▶ There is no provision for increased operational expenditure based on achieving technological university designation
- ▶ There is no provision for increased capital expenditure based on achieving technological university designation
- ▶ There is no provision for potential changes to funding that may arise as a result of the Review of the Resource Allocation Model for Funding

TU4Dublin consolidated capital expenditure budget 2018

FIGURE 5.5: TU4DUBLIN ALLIANCE CONSOLIDATED CAPITAL EXPENDITURE 2021/22

CAPITAL EXPENDITURE	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	Audited €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000	Draft €'000
TOTAL DIT	5,400	4,128	10,058	900	900	900	900
TOTAL ITB	2,959	1,173	5,048	2,174	0	600	0
TOTAL ITT	0	0	500	3,000	3,000	0	0
Total TU4Dublin consolidated	8,359	5,301	15,606	6,074	3,900	1,500	900

Assumptions

No capital expenditure for Grangegorman has been included, as this is being carried out through the Grangegorman Development Agency.

Any future financing of PPP arrangements will be met through cost savings relating to existing buildings and other efficiencies.

5.2 Programme of work: financial overview

TU4Dublin programme costs incurred from July 2016 and projected to December 2020 have been categorised with reference to the programmes of work under which supporting projects and activities are taking place. The total cost estimated on the programmes of work for this period totals €23,122,951.

See also

The programme of work is set out in detail in the *TU4Dublin Programme Plan* (included as ancillary document as part of this application)

FIGURE 5.6: TU4DUBLIN ALLIANCE PROGRAMME OF WORK FINANCIAL OVERVIEW JULY 2016 – DECEMBER 2020

Programmes of work	Total cost
Programme 1 –The New University Graduate	€7,678,419
Programme 2 – Student Experience and Wellness	€971,337
Programme 3 – Engaged International Institution	€428,578
Programme 4 – A Force for Innovation	€3,115,492
Programme 5 – 21st Century Workplace	€4,136,440
Programme 6 – Efficient Use of Resources	€3,643,270
Programme 7 – Digital Campus	€3,149,416
Total	€23,122,951

Within the supporting projects and activities, the costs above comprise the following:

- ▶ Pay-related costs incurred July 2016 – December 2017
- ▶ Non-pay costs incurred July 2016 - December 2017
- ▶ Projected estimates of pay related costs January 2018 – December 2020
- ▶ Projected estimates of non-pay related costs January 2018 – December 2020
- ▶ Costs indicated here do not include projections of costs relating to the integration of ICT software systems and data currently in use
- ▶ Costs do not reflect potential increases arising from software licence contracts.
- ▶ Conversely, these costs do not reflect potential efficiencies or economies of scale that may arise as a result of achieving TU designation

Concurrently, these costs have been further aligned to the categories as set out in the HEA call for submissions regarding ‘Support for Higher Education Landscape Reforms’. The alignment of both categories enables submissions for funding, and subsequent reporting, to be made to the HEA which directly map to the activities undertaken within the Programmes of Work.

Table 5.7 sets out the costs of each programme of work under each of the HEA’s cost centre categories.

FIGURE 5.7: TU4DUBLIN ALLIANCE PROJECT COSTS JUL16-DEC20 CATEGORISED PER HEA APPLICATION & PLANS

PROGRAMMES OF WORK	HEA cost centre categories								TOTAL
	Academic Affairs	Student Administration and Support	Research	Engagement	Corporate Affairs	IT and Communication	Programme and change management	Engagement and Communication	
Programme 1 –The New University Graduate	3,798,216	496,199	0	0	259,411	0	0	3,124,593	7,678,419
Programme 2 – Student Experience and Wellness	0	971,337	0	0	0	0	0	0	971,337
Programme 3 – Engaged International Institution	0	232,208	0	196,370	0	0	0	0	428,578
Programme 4 – A Force for Innovation	0	0	2,900,133	215,359	0	0	0	0	3,115,492
Programme 5 – 21st Century Workplace	0	0	0	0	395,579	0	3,740,861	0	4,136,440
Programme 6 – Efficient Use of Resources	0	940,298	0	0	2,296,340	406,632	0	0	3,643,270
Programme 7 – Digital Campus	0	0	0	0	0	3,149,416	0	0	3,149,416
Total	3,798,216	2,640,041	2,900,133	411,729	2,951,330	3,556,048	3,740,861	3,124,593	23,122,951

5.3 Financial projections: assumptions and constraints

The TU4Dublin **consolidated programmes and budgets financial model 2018** is an amalgamation of the 2018 programmes and budgets prepared by the three institutes for submission to the Higher Education Authority.

The TU4Dublin **consolidated programmes and budgets financial model 2018** is prepared to the year 2021/22 on the basis of an 'as is' state of the partner institutes. It seeks to demonstrate the projected financial viability of the partner institutes irrespective of any potential long-term benefits that may accrue from designation as a technological university.

It does not contain projections of additional revenue streams, additional costs, potential economies of scale, or additional capital expenditure that may arise upon TU designation.

The longer term potential changes to student numbers, income and expenditure, and revenue streams are captured in section 5 of the ancillary document, *The Socio-Economic and Cultural Impact of TU4Dublin* (commissioned from 4-Consulting). That document includes details of projected additional sources of revenue that may be available to the technological university. It also makes the assumption that the expenditure pattern will be similar to what it is currently within the three institutes, with pay costs continuing to account for the majority of expenditure.

The **Programme financial overview** presented in section 5.2 above reflects the costs and related funding of the TU project to date. It also projects expected costs and related funding required to support the programme further, from designation through the foundation period and beyond to the year 2020.

These projections represent estimated costs that have been identified through the programmes of work as contained in the ancillary document, *The TU4Dublin Programme Plan*.

The details as shown provide the basis of submissions made to the HEA in response to issued calls for support for Higher Education Landscape reforms.