

Strategic Dialogue Cycle 4

# **DIT Self Evaluation Report**

Submitted to Higher Education Authority

16<sup>th</sup> May 2017



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### **Case Study Outline**

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## **Overview of institutional progress**

### **Overarching Statement**

DIT is a purpose-driven research-informed higher education institution. We have maintained major provision in STEM subjects at over 40% of total students, with engineering, manufacturing and construction students constituting just over 26% of all students and nearly 14% in science including information and communication technologies. DIT is also a key provider of higher education to the retail, marketing and hospitality sectors, with 28% of the students in social sciences, business and law and 11% in the services sector. DIT is a major provider of music education and more broadly for the creative industries with nearly 14% of students in the arts and humanities. Fully committed to flexibility and diversity of provision, part-time student numbers have grown from just under 4,000 in 2012-13 to nearly 6,400 in 2016-17. 31% of students are now studying in a part-time mode. Of the new entrants about 9% of undergraduate students enrol at DIT through 'Access' pathways.

DIT has focused its strengths in research and innovation in:- (i) new materials devices; (ii) energy, environment and health; (iii) information communication and media technologies; and (iv) society, culture and enterprise. Research in these areas produced over 900 outputs in 2016 compared with 588 in 2013. More importantly, outputs in the top 10% citation percentile increased from 12.7% in 2015 to 21.2% in 2016 - DIT is the leading researching institution in Ireland by a field-weighted citation impact in bio chemistry, bio engineering, catalysis, process chemistry and technology, electro-chemistry, environmental sciences, engineering and toxicology. The Institute has made strategic leadership appointments in the areas of environment, energy and health and information communication and media technologies. It also opened a new PRTLI-funded research facility housed in the new Greenway Hub building at our Grangegorman campus. The Greenway Hub also houses our 'Hothouse', new incubation and business development activity, responsible for the creation of 1,600 jobs to-date and attracting €160 million in external investment in the period 2001-2016.

The Technological University for Dublin (TU4Dublin) initiative, with our partner Institutes of Technology, Blanchardstown and Tallaght, is well advanced towards the point of the Alliance ready to seek technology university designation. Substantial ground work has been done and the Alliance now awaits finalisation of the legislation to proceed to the final stage of the process.

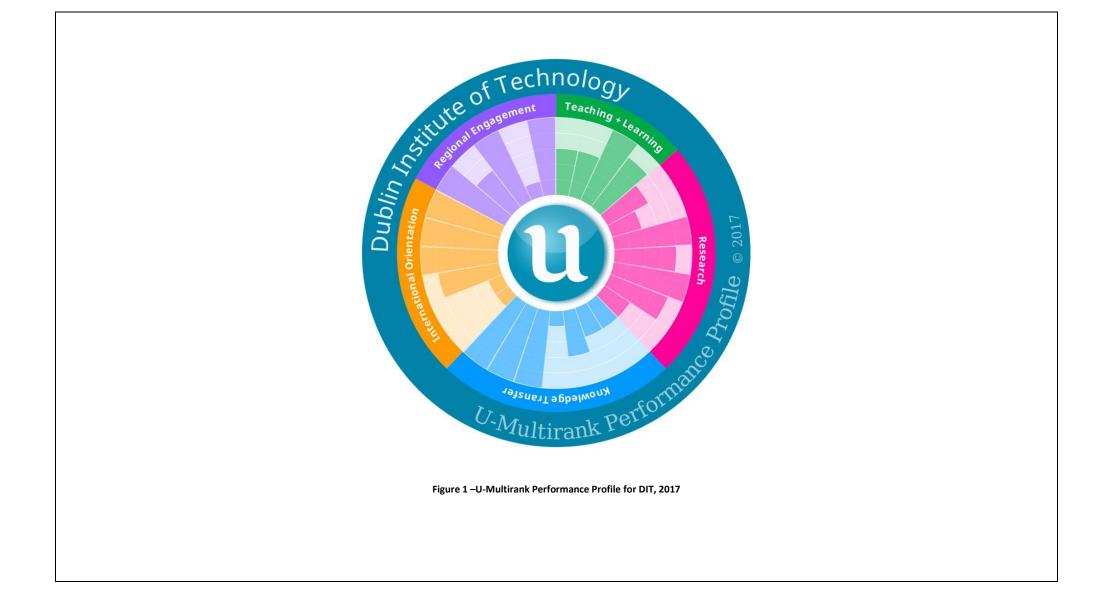
Our Grangegorman campus has been a major development over the course of this Compact. The new DIT campus at Grangegorman is critically important as it contributes to urban regeneration, local enterprise and increased access to higher education. The student experience in DIT has been enhanced with the provision of new playing fields at Grangegorman and Broombridge enabling greater participation in sports and recreation. In cooperation with other key stakeholders we operate a Labour and Learning Forum, who's Grangegorman Employment Charter ensures significant local employment in the construction of the campus.

Substantial growth across all student cohorts has been experienced by DIT in the last six years. This growth (over 25% of total enrolments) will become more modest, as financial constraints and the pressure on space and facilities continue. To that end the timing of the delivery of the different phases of the new DIT campus at Grangegorman will be a critical facet in future developments.

Overall, DIT has performed very well over the period of this Compact and in line with its stated plans. It has:-

- a) increased its overall student numbers
- b) increased international student numbers
- c) increased its research student numbers one of the few HEIs in the country to do so
- d) improved retention rates across its undergraduate programmes
- e) continued to be a leader in 'access' and part-time provision
- f) continued to out-perform other HEIs in terms of technology transfer and new venture creation
- g) delivered the plans for the Grangegorman campus the largest development of its kind in higher education in Europe
- h) delivered the plans for the TU4Dublin project a new and complex initiative in the Irish higher education landscape, and
- i) achieved the above within a planned balanced budget.

DIT is pleased that such performance is recognised externally and this can be reflected in the recent outcomes of the 2017 U-Multirank process, where it received (along with UCC), 13 As out of the 39 indicators in the scheme. This is highest performance of the Irish HEIs among the 1,500 international third-level colleges that took part. The profile of DIT is contained in the following diagram, with the detail of the performance indicators available at: - http://www.umultirank.org



# 1. Regional Clusters

### **Overarching Statement**

It was agreed with HEA that DIT, along with its Technological University for Dublin (TU4Dublin) partners would focus on the development of the TU4D Alliance as its goal for participation in the Dublin/Leinster Pillar II cluster. Hence in 2015, DIT agreed to continue to maintain engagement in collaborative initiatives with TU4Dublin and Grangegorman as the priority projects. These form the main planks of DIT's regional development agenda.

The **TU4Dublin Alliance** is an initiative by the three partners Dublin Institute of Technology (DIT), Institute of Technology, Blanchardstown (ITB) and Institute of Technology, Tallaght (ITT) to create a new technological university for the Dublin region. Substantial progress has been made in advancing the TU4Dublin initiative over the period of the Compact and a summary of the most recent developments is provided in Section 7.

As a consortium, TU4Dublin is already a major player in Irish higher education, representing 12% of all new entrants (*HEA data 2015/16*). The Alliance continues to be an active participant in the Dublin region, contributing to the knowledge capital of the region through supporting technologically skilled students and graduates. In the academic year 2016/17, TU4Dublin had a total of 29,339 students, of which 6,742 were new entrants. This is a significant cohort of the student population in the region. Comparatively, for the year 2015/16 (for which the most recent HEA data is available), in the Dublin region TU4Dublin supported

- 25% of all students
- 25% of all new entrants
- 34% of new entrants in STEM disciplines and
- Over ½ (54%) of all learners on Level 6 & 7 programmes

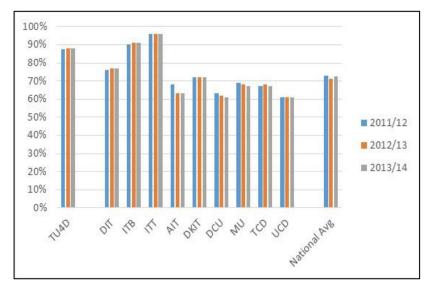
Figure 2 shows that TU4Dublin has more than 3 out of every 4 students from the institution's county or bordering county, both a higher figure than (i) the national average and (ii) higher than the other institutions in the Dublin region. One important outcome of the TU4Dublin work to date has been the establishment of the joint Graduate Research School and the development and delivery of the structured PhD programme, whereby students from across the consortium can access and share greater knowledge and expertise.

The second strand of DIT's regional development agenda, i.e. the consolidation of the institution at its campus in **Grangegorman**, continued through 2016. This relocation will enable the Institute better respond to key sectors of the Irish economy with particular emphasis on (i) human capital and skills development,(ii) innovation and technology transfer, (iii) enhancing Dublin's social, cultural and sporting infrastructure and (iv) contributing greatly to the regeneration of Dublin's north inner city. By cooperating with the National Transport Authority and Dublin City Council, key synergies between higher education, location and transport are being harnessed to develop a major hub for Foreign Direct Investment (FDI) at Broadstone in Dublin's north inner city. DIT through the Grangegorman Labour and Learning Forum leads a wide range of initiatives through an integrated response to major social challenges within the north inner city. The success of the Grangegorman Employment Charter has been recognised by Government; today it forms part of all procurement contracts for capital infrastructure by the Government. DIT is committed to environmental sustainability in its teaching, research, operations and community engagement. It achieved over 20% savings in energy consumption and has delivered extensive work on public transport access to the campus by bus, Luas and Dublin Bike.

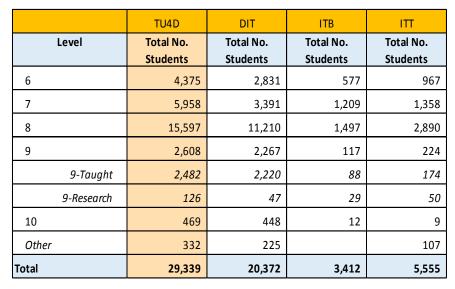
The relocation of 1,250 students to the new campus at Grangegorman has provided an enhanced student experience for those students and for those accessing the campus on a more irregular basis. But it has also resulted in important impacts on the local area, with already increased economic activity amongst existing and new retail, catering and other small businesses. The opening of the Greenway Building has allowed DIT's Hothouse activity to relocate from the Docklands Industry Park to a new on-campus facility, integrating this activity into the fabric of the Campus – an important precursor to the development of the Science Park, that in time will provide 50,000 m<sup>2</sup> of space for knowledge-led firms directly on campus. Over 100 PhD students are in the process of relocating to Grangegorman into new purpose built facilities, creating a knowledge powerhouse in what has historically been a disadvantaged area of the city. At a management level the Senior Leadership Team has worked closely with all colleges and functional units to explore ways of further enhancing the overall student experience and the benefits to the local community. Significant resources have been devoted to delivering student counselling, career guidance, medical centres, access and disability supports, as well as sports & recreational facilities that are also available to local residents, groups and clubs.

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be an active participant in the Dublin/Leinster Pillar II cluster, so as to enhance DIT's contribution to Dublin's regional development.	Number of active collaborative initiatives	Four initiatives, namely: 1. DRHEA 2. The Green Way 3. The Global City Innovation Initiative, 4. The Creative Dublin Alliance.	Target for 2016 - Progress the implementation of TU4Dublin and the Grangegorman campus development in line with the project plans. TU4Dubin In 2016/17, the TU4Dublin Alliance continued its work on preparing for technological university designation, whilst maintaining the consortium's presence in the Dublin region as a major multi-level higher education provider. Over the period of the Compact, some growth has been seen in both level 8 students and postgraduate research student numbers. At the same time student populations in both levels 6 and 7 have remained broady constant. The breakdown of student numbers for 2016/17, by NFQ level, is given in Figure 3. In 2016/17 TU4Dublin also saw almost 8,000 students successfully graduate, 15% at postgraduate level. The breakdown of the disciplines for TU4Dublin partners have constantly supported students from the nationally targeted under-represented groups. As a consortium, TU4Dublin accounts for over '1, of new entrants from 'non-manual, semi-skilled and unskilled socio-economic' backgrounds. Drawn from the HEA's Equal Access Survey (EAS) for the years 2010/11 to 2013/14, this subtantial and consistent contribution can be seen in Figure 5. In addition, TU4Dublin partners account for 15% of the total national figure new entrants of mature students. This level of participation in 'access' groups continued in the TU4D partners throughout the period of the Compact. Research and innovation are important facets of the TU4Dublin profile. The consortium has been growing its research student population in recent years and currently accounts for 10% of this student cohort within the greater Dublin region (HEA data - 2015/16). In 2016, TU4Dublin partners were the only HEI/HEI grouping where significant growth in research student enrolment took place. Research capability building initiatives amongst the TU4D partners has resulted in important activity in the Alliance's areas of research strength: (I) Environment, Energy and Health; (II) Information, Communications and Media Tech	

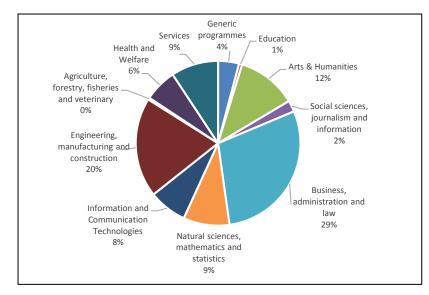
Grangegorman	
The Grangegorman Campus is a major national higher education project that will contribute enormously to the rejuvenat a key area of Dublin's inner city underpinning the educational, economic, social, creative & cultural and environmental fai the city overall. A joint development with HSE, on completion the campus will have almost 350,000 m <sup>2</sup> of building on the acre site in the centre of the city. The breakdown of space planned is provided in <b>Figure 6</b> . The campus will accommodat full student population of the current DIT, bringing together 25,000 students, 2,000 staff from over 30 existing locations of one new state-of-the-art campus.	oric of 73 te the
Following the completion of the Greenway Hub in late 2015 the building fit-out and commissioning was carried out. The Hothouse team relocated the incubation programme to the building and as of spring 2017 ~75% of the incubator space is to clients.	let
In 2016 pitches and grounds have transferred to DIT and has facilitated use by local clubs and schools. The opening of the playground and walking paths has seen significant local community use. A joint estates governance has been agreed and implemented between the DIT, HSE and GDA, with the DIT Estates team providing day to day operation and management behalf of all the stakeholders.	
On-going legal delays to the procurement of facilities that will house 10,000 students from a range of disciplines, were fin resolved by a positive judgement in favour of the state in late 2016. In April 2017 engagement with the preferred tenderer fully re-established, with detailed design progressing. The expected date of completion is now the 2019/2020 academic y	r is
In order to support the core academic provision, design teams have been appointed and are working on an Academic Hub/Library and an Energy Centre. In addition planning to provide interim measures and accommodation to cover the ph relocation and staged delivery of individual elements of the project is advancing. These formed the core of the DIT submit to the recent higher education capital review process.	
Procurement of the first phase of student accommodation has proceeded.	
An aerial view of the campus (as at Sept 2015) is provided in Figure 7.	



**Figure 2 - Regional intake from the Institution's county & bordering counties** (% of full-time enrolments) Source – HEA Statistics



**Figure 3 – TU4Dublin Student numbers by NFQ Level, 2016/17** Source – TU4D Database



**Figure 4 - TU4D Graduates 2016/17, by discipline** *Source – TU4D Database* 

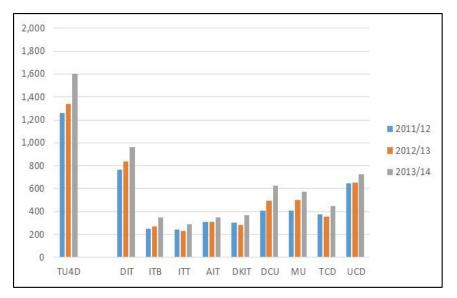


Figure 5 - New Entrants from Non-Manual, Semi-Skilled and Unskilled Socio-Economic Backgrounds for TU4D and selected HEIs (Headcount) Source – HEA (EAS) Statistics

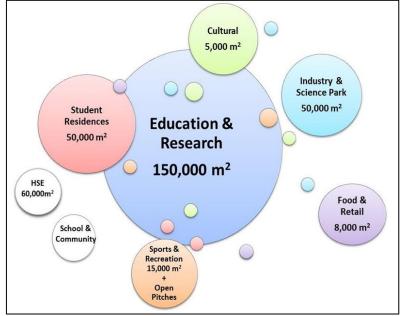


Figure 6 – DIT Campus @ Grangegorman -Planned space



Figure 7 – Aerial view of the new DIT Campus @ Grangegorman –Sept 2015

# 2. Participation, equal access and lifelong Learning

### **Overarching Statement**

In the last seven years, DIT has been through a period of major growth in student numbers. From 2010/11 to 2015/16, the Institute saw an increase of over 25% in total enrolments. This compares with a national average of 12% for the same period. Except for the full-time postgraduate cohort, which remained steady, all categories of students showed dramatic increases over the six years. Again in 2016/17, DIT showed a further growth of 3% in total full-time undergraduate enrolments. The growth has been experienced across all disciplines except for programmes in construction, which were originally impacted heavily by the recession, but have rallied again in the last couple of years. In the STEM disciplines generally, DIT has continued to maintain its provision and position in this category, with just under 40% of its full-time undergraduate provision in STEM programmes.

Overall, undergraduate new entrants were up by 29% in the period from 2010/11. This growth is one of the highest in the Dublin region, with only DCU and Maynooth University seeing greater increases. In addition, DIT has continued to maintain its position as the largest provider of part-time education in the State and added to this with a 40% growth in part-time numbers in the period. This is particularly noteworthy, as nearly all the universities in the greater Dublin region have shown significant decreases in the part-time undergraduate cohorts in the same period. DIT's tradition to help widen participation in higher education, not only in the nationally targeted under-represented groups, but generally through the provision of part-time education, is reflected in these numbers. The substantial provision (over 6,000 students) continues DIT's commitment to this type of education since its foundation in higher technical education over a century ago.

Indeed, DIT recognises the key role that participation in higher education plays within Irish society. Given its many locations across Dublin city DIT has, over many decades, promoted and led at sectoral level many initiatives targeting the promotion of participation, equality of access and lifelong learning in Irish higher education. The DIT Access & Civic Engagement Office plays a central role in coordinating initiatives to widen participation from economically disadvantaged students to students with disabilities or traditionally under-represented groups such as mature students and travellers - these initiatives reflect the complex nature of the challenge. Each year DIT supports the processing of circa 4,000 applications under the DIT Access & Disability entry routes. Each year DIT supports 1,000 'Access' students and a further 1,300 students with disabilities, making DIT the largest provider in this area.

The DIT Access & Civic Engagement Office (ACE) interacts with 120 community partners to facilitate greater engagement in higher education. Since 2008 over 6,000 students within DIT have completed a Students Learning With Community (SLWC) component of their programme of study and a further 1,000 students volunteer on a variety of causes. Through ACE, DIT works with 29 DEIS schools across Dublin and beyond. It also leads the Grangegorman Area Based Childhood (ABC) Programme, a programme targeting interventions to improve the quality of early year's supports in the Grangegorman area and to make a significant difference to children, families, and service providers in the area by addressing socio-economic disadvantage and gaps in services to help children to reach their full potential. The initiative is made up of a consortium of 29 organisations working in the area with DIT as the lead agency. The initiative secured almost €1 million in funding for early childhood programmes from the Department of Children and Youth Affairs (DCYA) and Atlantic Philanthropies across the duration of the project.

In terms of other learning collaborations, DIT has always worked closely with industry and community groups to provide life-long learning opportunities. Examples are provided in the table below of such partnerships and the indicative student numbers involved.

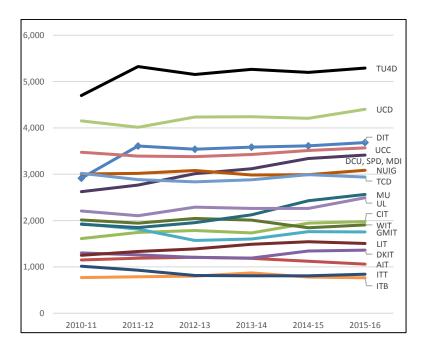
Partner	Student Nos
Irish Business and Employers Confederation (IBEC)	250
Marketing Institute of Ireland	83
Ericsson and ICT Ireland	20
Institute of Advertising Practitioners in Ireland	27
Society of Chartered Surveyors Ireland	250
Musgrave	115
Irish Air Corps	40
Irish Software Association	21
Engineers Ireland	51
Sherkin Island Development Society	33
Simon Communities	57

#### Table 1 – Examples of Life-Long Learning Collaborations

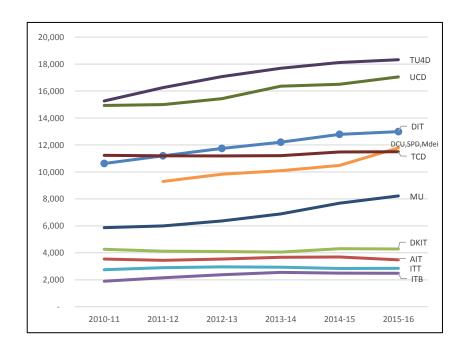
The provision above includes short CPD programmes to Masters programmes, providing continual upskilling opportunities in a wide range of sectors. For instance, the programmes developed jointly with organisations such as Musgrave, Intel, Institute of Advertising Practitioners are designed for individuals at work, deepening their skills for the task at hand or developing capacity for positions of greater responsibility. These programmes are delivered to accommodate individuals in employment and the range of part-time Masters provision has been expanded to facilitate more widespread access to lifelong learning.

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be the HEI of choice in arts, tourism, business, engineering, built environment, science & health for career-focused education	Numbers of students recruited under selected categories:-	Year 2010/11	Year 2016/17	
	<ol> <li>Number of new full-time undergraduate entrants</li> </ol>	1. 2,900	<ol> <li>3,700 = Target for 2016/17</li> <li>In 2016/17, DIT had 3,748 new full-time undergraduate students, slightly exceeding its target for this cohort. This is a 2% increase on the previous year and is consistent with a steady pattern of previous years for DIT and the sector as a whole (See Figure 8).</li> </ol>	
	2. Number of full- time undergraduates	2. 10,600	<ul> <li>2. 12,750 = Target for 2016/17</li> <li>In 2016/17, DIT had 12,914 full-time undergraduate students, again exceeding its target for this cohort and shows a 3% increase on the previous year. This is a pattern similar to universities in the greater Dublin region as seen in Figure 9, with a 22% growth experienced by DIT since 2010/11. This growth can be attributed to both increased numbers of new entrants and the improved retention across programmes as a result of the implementation of the Institute's strategy on this issue. Arts &amp; Tourism and Sciences &amp; Health saw steady growth in full-time undergraduates in the period, whilst the College of Business showed dramatic growth of almost 40%. Because of the recession, the College of Engineering &amp; Built Environment experienced decline in many of the construction programmes initially, but that trend has now reversed and the numbers have shown year-on year growth in the last couple of years.</li> <li>DIT has continued to perform well in the STEM areas over the years, representing about 40% of its full-time undergraduate provision and now has the largest number of STEM undergraduates nationally. Figure 10 shows the change in STEM undergraduate numbers between 2015/16 and 2008/09 for DIT and selected HEIs.</li> <li>DIT has made a significant contribution to the development of ICT talent, with over 1,000 students currently studying in these disciplines. Figure 11 shows the change in ICT undergraduate numbers between 2015/16 and 2008/09 for DIT and selected HEIs.</li> </ul>	
	3. Number of all part- time undergraduate students	3. 3,700	3. 3,500 = Target for 2016/17 In 2016/17, DIT had 3,856 part-time undergraduate students, exceeding its target for this cohort and showing a 15% increase on the previous year. There has been growth in the construction programmes and in dynamic industry areas such as digital skills. Traditionally DIT has been the largest provider of part-time education in the State and comparative figures for DIT and selected HEIs for the period 2010/11 to 2015/16 (excluding apprenticeship), as given in Figure 12 show this fact. It is also useful to note that in the period from 2008/09 to 2015/16, except for CIT, DIT along with its TU4D partner, ITT were the only HEIs to show a significant increase in part-time undergraduate numbers – see Figure 13.	

4.	Number of postgraduate students (FTE)	4. 1,700	<ul> <li>2,000 = Target for 2016/17</li> <li>In 2016/17, DIT had 1,967 (FTE) postgraduate students, reaching its target for this cohort and in line with the general trend in post-graduate participation for the sector.</li> </ul>	
5.	Number of postgraduate research students (FTE)	5. 400	<ul> <li>5. Target for 2016/17 = estimated 650 (FTE) or 4% research student enrolment for TU designation – Target is for the TU4Dublin consortium.</li> <li>As of April 2017, the total number of research students enrolled across the three partner institutions was 595 (headcount) or 491 (FTE). This is below the target of 650 set for 2016, but represents on current student numbers approximately 3.6% of total L8-10 enrolment.</li> <li>Further commentary on this is provided in Section 4.</li> </ul>	



**Figure 8 - New entrants for selected HEIs - 2010-11 to 2015-16** Source – HEA Statistics



**Figure 9 – Fulltime Undergraduate Enrolments for HEIs in greater Dublin region- 2010-11 to 2015-16** *Source – HEA Statistics* 

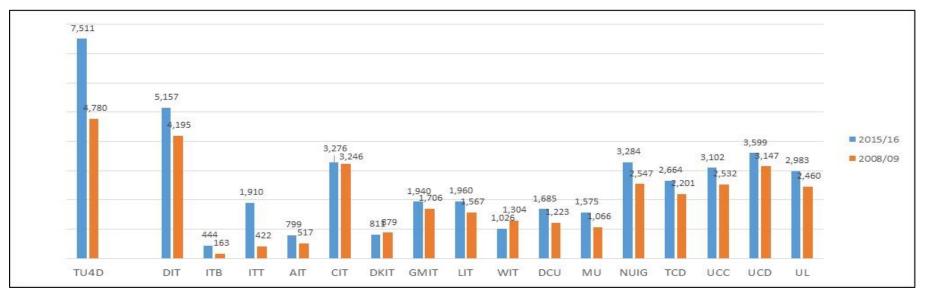


Figure 10– STEM Undergraduates (excl. ICT) - 2015/16 headcount with change since 2008/09, for selected HEIs Source – HEA Statistics

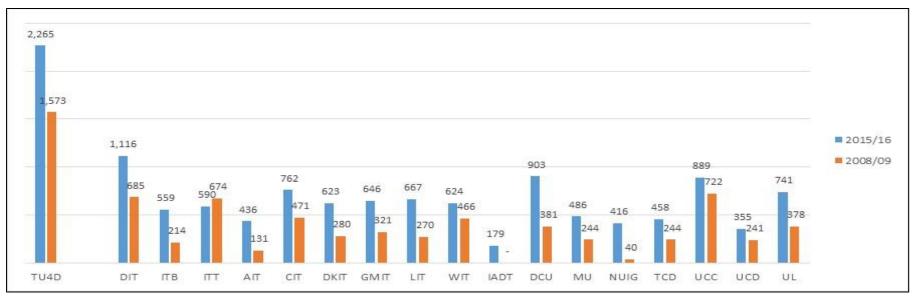
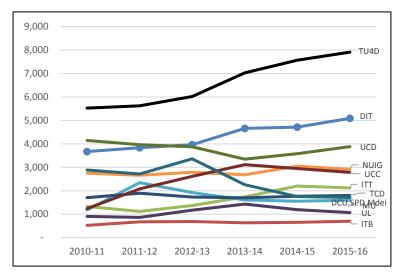


Figure 11 – ICT Undergraduates 2015/16 headcount with change since 2008/09, for selected HEIs Source – HEA Statistics



**Figure 12 – Part-time enrolments (UG & PG) for selected HEIs - 2010-11 to 2015-16** *Source – HEA Statistics – (excludes apprentices and junior music)* 

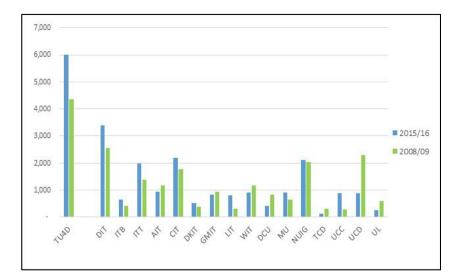
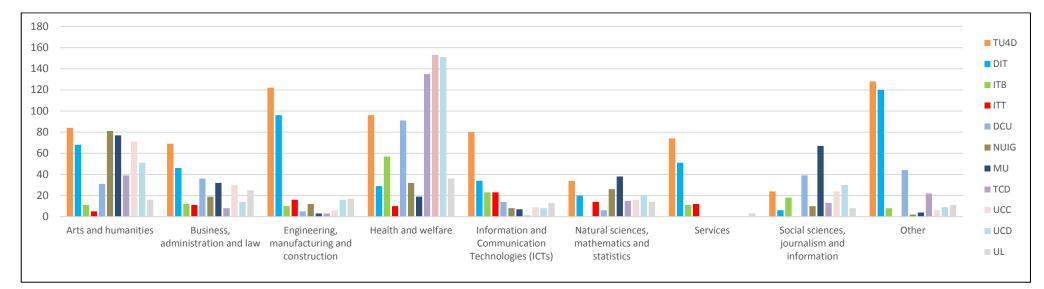


Figure 13 – Part Time Undergraduate student numbers for Selected HEIs, 2008/09 and 2015/16 Source – HEA Statistics

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To provide professional, career- focused learning and discovery for a diverse range of students	Diversity of student population as indicated by percentage of new entrants from traditionally under- represented groups, as set out in the National	2012/13	<u>Commentary</u> DIT has a long tradition in addressing disadvantage and diversity in higher education. DIT has fully supported, participated and assisted in resourcing the HEAR and DARE initiatives for the sector and fully supports existing moves to incorporate some of this student application activity within the CAO system. In incorporating elements of this recruitment activity within the CAO system it helps to mainstream this process to make it easier to access programmes. In 2016/17, targets for diversity in new entrants have been met.	
	Access Plan		An interesting development that took place in 2016 under DIT's diversity agenda was the 'Access to Apprenticeship' initiative, developed in partnership with JP Morgan and the ESB. DIT has a long successful track record in providing access programmes for undergraduate education and is also the leading provider of apprentice education in Ireland. The Access to Apprenticeship programme uniquely combines these two areas of strength in DIT to create this novel pilot programme. The first students will join DIT in September 2017.	
	1. Mature students as percentage of new entrants	1. 12%	Target - Year 2016/17 - 13%         Commentary         The percentage of mature students in 2016/17 was 12%, slightly down from 13% in the previous year. A similar reduction in mature student participation has been experienced at a national level (HEA National Plan for Equity of Access 2015-2019) and this is reflected in DIT's performance here. DIT aims to maintain the level of participation at broadly this level, although it is recognised that there tends to be a particular attraction for mature students in areas such as Health & Welfare and Arts & Humanities, rather than the core STEM disciplines. This can be seen in Figure 14, which shows over 40% of the new entrants are in these fields.	
	2.Students with disability as percentage of new entrants	2. 6%	Commentary         In 2016/17 10% of new entrants were students with a disability, (8% as funded under FSD) and so DIT met its target for this cohort	
	3. Young students (under 25) from socio-economic disadvantage (SED) backgrounds as percentage of new entrants	3. 7%	Commentary         In 2016/17, 9% of new entrants were in this category, surpassing the target	
	4.Travellers as percentage of new entrants	4. <1%	Target - Year 2016/17 - <1%         Commentary         In future a target for the Traveller Community will be set as a student number, rather than percentage because the cohort is so small. In the period, no students self-identified to the Access service as Travellers. The DIT Access Service did some outreach work focused on the Travelling community in the past, however a very focused approach is needed both at national and Institute level to have impact. The Travelling community needs an outreach approach specific to their needs and circumstances, along with targeted entry routes to support their entry and transition into DIT and other HEIs. This matter will be taken up in future plans.	



**Figure 14 – Mature New Entrants (Headcount) by Field of Study, 2015-16, for selected HEIs** *Source – HEA Statistics* 

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
focused learning and discovery for a diverse range of students	Flexibility of accessing provision as indicated by the percentage of part-time, distance and e-learning students	Year 2010/11 24%	Target Year 2016/17 – 30%         Commentary         In 2016/17 the percentage achieved was 31%         As indicated in previous sections, there was a growth in DIT part-time student numbers from 2015/16. Large increases were experienced in areas such as hospitality; ICT & digital technology, and in music.         In terms of e-learning, a high volume of academic content is made available to students through the DIT virtual learning environment (VLE). In 2016/17, students accessed over 3,000 separate subject modules online. The VLE is heavily used as a means of supporting and managing the assessment and feedback process – for example, 26,894 assessment items were submitted online from 1st April 2017 to 12 <sup>th</sup> May 2017.         Online project supervision is provided for some cohorts of students, who complete a semester or full academic year abroad as part of their studies. A distance learning accounting module is also delivered for students who opt to study abroad, to provide the necessary pre-requisite learning for students who wish to study on an accounting stream in the final year of their honours degree.         'Blended' learning is the approach most heavily adopted by DIT staff currently, and use of webinar technology is becoming increasingly evident with a small but growing cohort of academic staff delivering classes online. There is a move towards providing fully online opportunities - including a Springboard programme in pharmaceutical science delivered to students nationally; and the Dublin School of Architecture is facilitating an EU-wide 10-ect professional programme in energy retrofitting.         DIT is the educational partner for the IBEC Global Graduates programme (formerly known as the Export Orientation Programme). DIT has delivered a Postgraduate Diploma programme to students on this	

# 3. Excellent teaching and learning and quality of the student experience

### **Overarching Statement**

In 2014, DIT updated its strategy for teaching, learning & assessment so as to enhance the overall student experience. This is encapsulated in Figure 15.

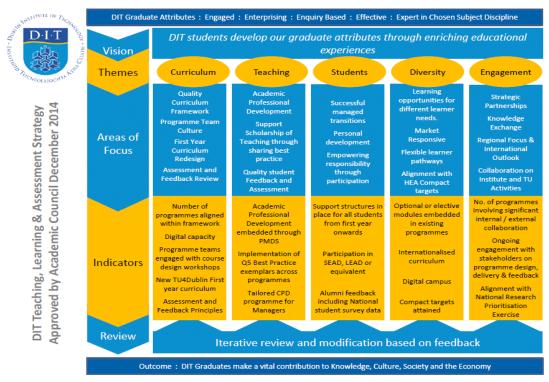


Figure 15 – DIT Teaching, Learning & Assessment Strategy - 2014

Over the period of the Compact this strategy has been implemented and the associated goals achieved. Deliverables include:-

- The development of the suite of 'Graduate Attributes' along with a range of supporting material for academic colleagues DIT Graduate Attributes and Toolkit
- Work on the First Year Experience and recommendations with respect to the transition into higher education see report on best practices Transition Report to Academic Council
- Development of 'General Entry' programmes to address the First Year Transitions agenda as part of DIT's continuing academic planning and review to a single common entry in certain disciplines the introduction of a common entry first year programmes has taken place as follows:-
  - Science & Health In 2013 a Common Entry for nine (Level 8) Science & Health programmes in 1<sup>st</sup> year through CAO with continuing denominated entry.
  - Arts & Tourism In 2017 a Common Entry into six (Level 8) Tourism & Language programmes through CAO without denominated entry. In 2017 a Common Entry into six (Level 8) Business & Language programmes through CAO without denominated entry.
  - o Business For many years there has been at (Level 8) a Common Entry into Business whilst maintaining denominated entry.
  - Engineering In 2014, a Common Entry for all seven (Level 8) Engineering programmes in 1<sup>st</sup> year through CAO with continuing denominated entry up to 2016 with the removal of Bachelor of Engineering (Level 8) denominated entry programmes from the CAO in 2017

- Work on the First Year Framework for Success see First Year Framework for Success and a Checklist for First Year Student Success , and
- 1<sup>st</sup> Year Experience projects, as part of the TU4Dublin initiative
- Implementation of recommendations arising from Provision of Structured Placement Report
- Enhancement of DIT Assessment practices
- Teaching Fellowships designed to address concerns/ provide research to underpin teaching and learning approaches and practice
- A series of light lunches to support academic tutors <a href="https://dit.ie/update/22-02-16/lightlunchesforfirstyeartutorsmarchapril/">https://dit.ie/update/22-02-16/lightlunchesforfirstyeartutorsmarchapril/</a>
- Support for the use of technology to support and integrate with teaching and learning, such as mobile apps <a href="http://www.dit.ie/lttc/elearning/12appsofchristmas/">http://www.dit.ie/lttc/elearning/12appsofchristmas/</a> and digital badges <a href="http://www.dit.ie/lttc/elearning/digitalbadges/">http://www.dit.ie/lttc/elearning/12appsofchristmas/</a> and digital badges <a href="http://www.dit.ie/lttc/elearning/digitalbadges/">http://www.dit.ie/lttc/elearning/12appsofchristmas/</a> and digital badges <a href="http://www.dit.ie/lttc/elearning/digitalbadges/">http://www.dit.ie/lttc/elearning/digitalbadges/</a>

Internal student performance statistics are routinely considered at College Boards, Academic Quality Assurance Committee and other fora, providing the necessary analysis for action and development. For example, college level consideration of first year student progression data for 2014/15 triggered a number of programme reviews in 2015/16, focusing on specific issues relating to progression and pass rates.

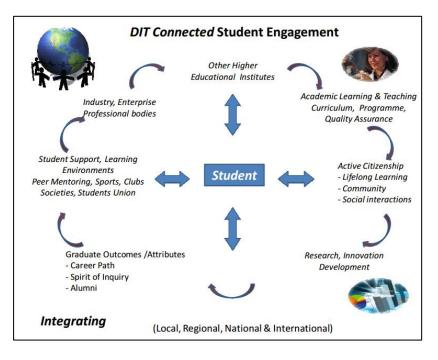
The Institute also takes on board feedback from other sources such as the Irish Survey of Student Engagement (ISSE). Initially DIT focussed on increasing the response rates of this survey amongst its student base and that has been achieved. More importantly the feedback received from the survey has been analysed and where possible issues addressed. This is reflected in the results from the 2017 survey for DIT, summarised in the table below.

Theme	Engagement Indicator	DIT Mean	Compared to National	DIT 2016	Δ 2017 to 2016	Change +/-
Academic Challenge	Higher-Order Learning	35.06	$\downarrow$	33.947	1.11	+
	Reflective and Integrative Learning	29.55	$\downarrow$	28.869	0.68	+
	Quantitative Reasoning	19.99	=	18.91	1.08	+
	Learning Strategies	29.30	=	28.538	0.76	+
Learning with peers	Collaborative Learning	32.00	$\uparrow$	31.355	0.64	+
Experiences with Faculty	Student-Faculty Interaction	13.52	=	13.272	0.25	+
Faculty	Effective Teaching Practices	33.08	$\checkmark$	32.387	0.70	+
Campus Environment	Quality of Interactions	37.76	=	34.73	3.03	+
	Supportive Environment	26.37	$\downarrow$	23.622	2.75	+

#### Table 2 – Irish Survey of Student Engagement 2017 – DIT Summary Results

In the 2016 survey, DIT was on par with national average for some indicators, behind on others and ahead on one. It can be seen from the table above that on a year-to-year basis (2016 to 2017), the results show improvement on all indicators, providing validation for the actions taken and some indicator of the positive impacts of the Teaching, Learning & Assessment Strategy. Indeed, the DIT Student Engagement Model (Figure 16 below) has been a cornerstone in enhancing the student experience.

The 'Campus Environment' theme emerged again as an issue in the survey and obviously presents a particular challenge for the Institute, as many of the items of concern can only be addressed through the relocation and consolidation of services to the new DIT campus at Grangegorman and the provision of state-of-the-art facilities, comparable with others in the higher education sector. Progress on the development of the new campus and maintenance of existing facilities as appropriate, will remain as key priorities for DIT.



#### Figure 16 – DIT Student Engagement Model

Source – Internal DIT paper 'Towards a DIT Strategy on Student Engagement 2012-15'

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students	All programmes provide students with the opportunity to develop key	Year 2012/13 Suite of graduate attributes agreed	Target - Year 2016/17 Programmes revised to close any gaps and graduate attributes for all programmes made visible on the website and within other programme material	
acquire skills and develop as independent learners	employability skills or graduates attributes as set out in the approved policy document		<u>Commentary</u> Target achieved. This is now part of the Institute's ongoing process of programme validation and review, with a requirement to have graduate attributes articulated in programme handbooks and related material. Support is provided to programme teams by the Learning, Teaching & Technology Centre (LTTC) to help embed graduate attributes , through regular workshops and events and a series of guides – see <u>http://www.dit.ie/teaching/graduateattributes/usingthegraduateattributes/</u>	

http://www.dit.ie/teaching/graduateattributes/



Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students acquire skills and develop as independent learners	Percentage of programmes with work placement/internship element	Year 2012/13 17%	Target Year 2016/17= The target is changed from 25% to 50%CommentaryIn 2016/17, the percentage of programmes with work placement/internship element was 45%. This is slightly down on the previous year and short of the target set for 2016/17. However, it is known that there are a number of programmes to commence in September 2017, that will have placement as a part of the programme and this will bring the figure close to the target of 50%.The DIT work-placement model is being implemented across the Institute by programme teams as they introduce placement in their portfolios and examples of current practice from across the Institute to enhance the student experience. One such example is in the BA Visual Merchandising where students have the opportunity to work within different retail firms in Dublin.Examples of their work are given in the Figure 17 and the benefits of the activity is articulated in the paper <sup>1</sup> on the item.	

<sup>&</sup>lt;sup>1</sup> Meakin, K.: The Benefit of Work Placement in Tertiary Design Education. *DIT LTTC Graduate Student Conference*. June, 2010.

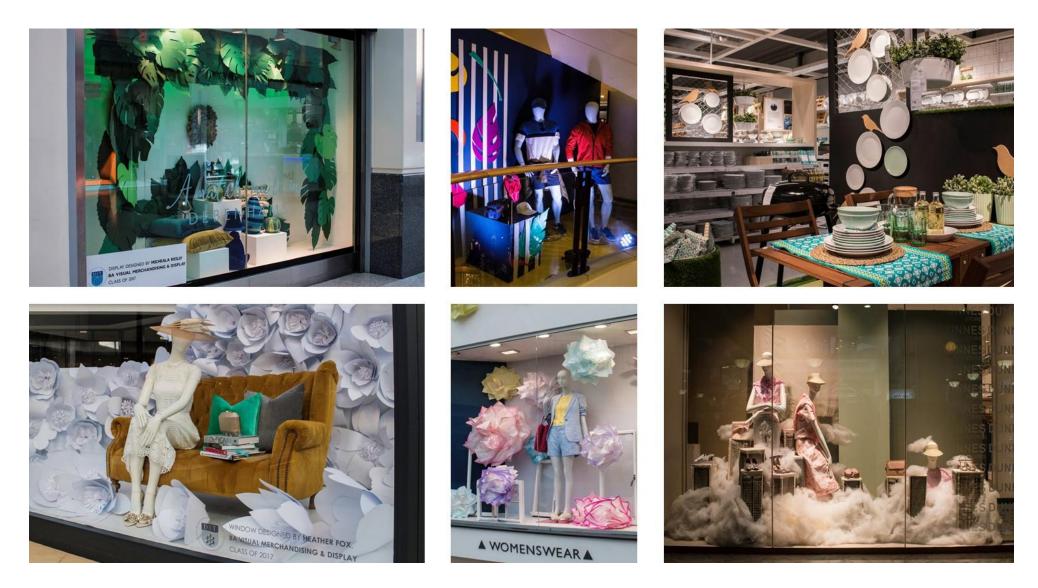


Figure 17 Examples of work of the students of the BA Visual Merchandising, from their work placements

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students acquire skills and develop as independent learners	Percentage of programmes with 'Students Learning with Communities (SLWC) element	Year 2012/13 14%	Target Year 2016/17 - The target is changed to 25%The target has been exceeded with the percentage of programmes with SLWC at 30% in 2016/17Service learning and community-based research is a feature within DIT programmes, with an average of 1,000 students involved every year over the course of the Compact. The Institute embraces the internationally validated philosophy2 that integrating academic work and community engagement delivers greater student leadership development, enriched learning, and improved academic performance, as well as building capacity in local communities.This research-informed activity (see link below3 for list of peer-reviewed publications), provides another practice-based element to the DIT learner's experience. While we have exceeded targets over the course of the Compact, the total number of modules and programmes offering community-based learning and research projects to students went into a period of decline from a peak in 2011/12 due to the challenging economic climate, but started to increase again in 2015/16 – reflecting economic growth. The Institute has built strong links with local communities where the co-creation of projects and achievement of real-life deliverables has brought positive contributions on both sides - For examples, see link below 4	

<sup>&</sup>lt;sup>2</sup> <u>https://www.mnsu.edu/cetl/academicservicelearning/Service-Learning.pdf</u>
<sup>3</sup> <u>http://www.dit.ie/ace/studentslearningwithcommunities/wherecanireadmoreaboutstudentslearningwithcommunities/peerreviewedjournals/</u>

<sup>&</sup>lt;sup>4</sup> http://www.dit.ie/ace/studentslearningwithcommunities/whatprojectshaveditstudentsworkedonwithcommunities/

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students acquire skills and develop as independent learners	Percentage of programmes with formal entrepreneurship element	Year 2012/13 10%	Target Year 2016/17 = 30%The target has been achieved - The percentage of programmes with formal entrepreneurship element in 2016/17 was 32%.As previously reported, in addition to DIT Hothouse provision (See link below <sup>5</sup> ), where graduates are supported in new venture creation, a large number of DIT students now have the opportunity to experience some element of entrepreneurship within their programme. The Hothouse Incubator facility was established on campus in Grangegorman in 2016 (see brochure at link below <sup>6</sup> ), where heretofore this service was located in the Dublin Docklands, remote from the main college sites. It is planned that better access to the Hothouse expertise & services will enhance the embedding of entrepreneurial activity across programmes. DIT, will seek to grow this further as more disciplines co-locate at Grangegorman.The target for 2016/17 was to maintain the percentage of programmes with formal entrepreneurship element at about 2015 levels (30%) and in 2016 there was just a slight increase. It is useful to note that during the year a new initiative promoted and supported by DIT Hothouse was launched – the 'Student Entrepreneur Academy', a 3 month summer student entrepreneurship programme provides training, incubator space and some funding to help students in the early stages of their business development. The inaugural group took place in 2016 and included students from the culinary arts, chemistry, computer science and product design.Further details are available at :- <a href="http://www.dit.ie/hothouse/newsevents/newsarticles/headline.133645,en.html">http://www.dit.ie/hothouse/newsevents/newsarticles/headline.133645,en.html</a> One of the students, David Henderson, went on to win the Best Business Idea category in the Dublin City County final of Ireland's Best Young Ent	

<sup>&</sup>lt;sup>5</sup> <u>http://dit.ie/hothouse/start-upcompanysupport/</u> <sup>6</sup> <u>http://dit.ie/hothouse/media/dithothouse/DIT%20Hothouse%20NextGen%20Incubator.pdf</u>

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students acquire skills and develop as independent learners	Non-presence rates of undergraduate full- time new entrants	Year 2011/12 Varied non-presence rates across different DIT programmes	Target Year 2016/17 - Achieve non-presence rates at or below the national average for comparable disciplines and levels Overall the target has been achieved. In the "education' field of study the DIT rate is an outlier because of the characteristics of one particular programme. However, in the areas of significant DIT provision the rates are at or below the national average for comparable disciplines and levels. Figure 18 below shows the general trends in DIT non-presence rates by NFQ level, from 2012/13 -2013/14 to date. Overall the impact of DIT's targeted retention strategy is evident with a reduction across the levels. The level 6 increase for this year, is attributable to one particular programme with small student numbers. Efforts under the retention strategy will continue within the Institute and it is hoped that greater results can be achieved over time.	

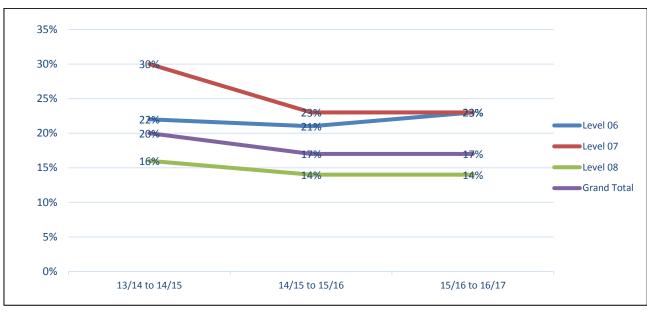


Figure 18 – Trends in DIT non-presence rates by NFQ level

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To improve continuously the learning experience so that all students acquire skills and develop as independent learners	Delivery of the actions contained in the Quality Enhancement Plan (Jan 2012)	Year 2012/13 Actions identified and some implemented	Target Year 2016/17         -       Continue activities in line with the DIT Quality Enhancement Plan         -       Progress on the alignment of QA systems in line with TU4Dublin plans         Commentary       Target achieved.         Emerging from the completion of the DIT Quality Enhancement Plan, a DIT 'Quality Enhancement Issues Log' has been developed in order to mainstream the monitoring and actioning of items by the different units of the Institute. The log records actions required, responses and updates to ensure visibility for students and staff. It is submitted regularly to the Senior Leadership Team (SLT) for consideration and monitoring. Those issues from the Quality Enhancement Plan that remain under continuous development have been captured within the Issues Log or are being directly monitored by the relevant sub-committees of Academic Council or SLT.	

# 4. High quality, internationally competitive research and innovation

### **Overarching Statement**

Over the four cycles of the Compact, DIT has secured and invested over €80m in research activity, significantly increased its research student numbers, awarding on average 100 research degrees annually, made substantial improvements to research infrastructure and expanded its provision in enterprise support and knowledge transfer.

The DIT Research Action Plan was developed as part of the strategic planning process in order to:

- Strengthen and develop DIT research capacity and capability in terms of scale and international recognition
- Meet and benchmark against TU criteria
- Align DIT with national policy objectives and new funding/competitive environment
- Provide support for researchers through a series of initiatives
- Grow the number of research students
- Ensure a high-quality research training environment for all researchers
- Enhance the leadership, management and governance structure for research

Notably over the period, DIT has concentrated and consolidated its research activity in 4 strategic areas of verifiable strength in:

- Environment, Energy and Health
- Information, Communications and Media Technologies
- New Materials and Devices
- Society, Culture and Enterprise

Research Institutes have been established in these key signature areas, coordinated by an Academic Leader to champion and lead an ambitious research programme in each respective field. Most recently, DIT and its partners the Health Services Executive (HSE) and Dublin City Council (DCC), have with the support of PRTLI Cycle V successfully launched the *Environmental Sustainability and Health Institute* (ESHI) in a flagship research facility on its Grangegorman campus. This, combined with the unrivalled suite of instrumentation in the *Focas Research Institute* (PRTLI Cycle I and IV), supports the common needs of research activities across Science, Technology and Engineering, underpinning cross-disciplinary collaboration and a commitment to a dynamic and supportive research culture. Two further Research Institutes in ICT and Arts, Humanities and Social Sciences are in development and will further consolidate research provision for DIT and its partners.

The DIT research community collaborates with a range of research groups, nationally and internationally. It is involved with 2 Science Foundation Ireland Centres:- CONNECT and ADAPT; Enterprise Ireland/IDA Technology Centres:- CeADAR, the Meat Teachnology Centre, the Dairy Processing Technology Centre, the Pharmaceutical Manufacturing Technology Centre and a Technology Gateway centre, CREST. International research collaboration is reflected in **Figure 19**.



Figure 19 – Map of location of international researchers with whom DIT has collaborated

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be an important source of research and discovery and underpin DIT's education programmes and its contribution to the economy and society.	KPIs set in order to reflect research capacity in terms of numbers of research active staff, qualified supervisors as well as research performance in key output areas of numbers of students, research income and publications.	Year 2012/13		
	<b>KPI 1</b> - % of Academic Staff with PhD	<b>39%</b> of DIT academic staff had a PhD at the baseline year of 2012/13.	Target 2016/17       - 46%         Commentary       DIT has grown the number of academic staff with a PhD from 39% to 45% over the period of the Compact, in line with our objective of achieving the staff profile TU criteria.         Targeted measures introduced under the DIT Research Action Plan (RAP) have provided opportunities for staff to upgrade qualifications, to support staff currently undertaking PhDs and to provide assistance through teaching buyout in the crucial pre-submission write up period.         An important new initiative introduced in 2016 is the <i>'Empowering Our Schools'</i> Research Capability Building Programme. This initiative has adopted a strategic approach to working with individual Schools to develop their research capacity over a 2 to 3 year timeframe. Additional support is provided to enable Schools to identify and attain specific targets for research active	
			staff, upgrading of staff qualifications and research supervision capacity within the academic staff cohort. Thus, regardless of the starting point, all Schools have engaged in a process of strategic planning to allow them to develop enhanced capacity and to tailor specific measures to support this development, taking into account research strengths, Institute priorities and wider national and European opportunities. This initiative is, we believe, an important further contribution to The DIT People Strategy further supports this approach to support for academic career development. Schools are empowered through the drafting of Candidate Briefs to highlight areas of particular research specialisation, recruiting in areas of niche strength and growing the next generation of research talent. Research active Schools have thereby aligned their strategic interests in research, including participation in SFI-funded research centres, with a strategic approach to recruitment and academic staff development. Through the implementation of this approach, the proportion of research active staff with PhDs contributing to research capacity is projected to increase steadily over the next phase of the Compact process.	
	<b>KPI 2</b> - Research Students (FTE)	<b>300 FTE</b> research students at the baseline year of 2012/13	Target Target for 2016/17 = estimated 650 (FTE) or 4% research student enrolment for TU designation – Target is for the TU4Dublin consortium.	
			<u>Commentary</u> As of April 2017, the total number of research students enrolled across the three partner institutions was <b>595 (headcount)</b> or <b>491 (FTE).</b> This is below the target of 650 set for 2016 and represents on current student numbers approximately <b>3.6% of</b> <b>total L8-10 enrolment</b> .	27

Over the period of this Compact, DIT, ITT and ITB have substantially increased research student enrolment and put in place a series of initiatives to build critical mass in areas of key research strength. The evidence shows that this has been successful,
growing the research student base from 300 (FTE) to approximately 500 (FTE) or close to 600 research students (headcount).
This significant increase has occurred against the backdrop of a decline nationally in PhD enrolment. In 2016, the only
significant growth nationally in research student enrolment was in the IOT sector, representing a 25% increase in enrolment,
the majority of which was accounted for by the TU4Dublin partners. It also reflects a strong performance in research student
graduations averaging approximately 100 awards at Level 9 and 10 each year.
DIT and its partners have sought to implement a sustainable and balanced approach to growing its research numbers with a series of devolved targets to areas of research capacity and recruitment initiatives focused on:
Competitive externally-funded initiatives
International research student recruitment
Self-funded research enrolment
Industry supported research collaborations
Enterprise-oriented co-funded initiatives
Own-funded College and Institute scholarship programmes, awarded on a competitive basis
Philanthropic grants reinvested in signature research areas
Innovative research programmes including PhDs by Prior Publication and practice-based PhDs
Own-funded initiatives have been internationally peer-reviewed to underpin the highest standards of research. Schemes such as the Fiosraigh Dean of Graduate Research Students Award as well as the President's Awards scheme in IT Tallaght and IT Blanchardstown have attained a strong international reputation, attracting high calibre candidates.
Investment has also been targeted towards early stage academic researchers. For example, a DIT Fiosraigh First Time Supervisor award has been introduced to support early career academics gain appropriate supervision experience. This scheme, which incorporates mentoring by experienced PIs, supplements other career development initiatives and supports
the development of increased capacity and ability to compete in international funding opportunities.
The Joint Graduate Research School has established a Task Force comprising the Heads of Research in each of the Colleges. This Task Force oversees the implementation of a TU-wide Action Plan, leads the recruitment drive, targets areas of research capacity and identifies new opportunities.
Over the course of the Compact period, DIT and its partners have managed the growth in research student numbers in a strategic and sustainable way with quality enhancement as a primary emphasis. The Joint Graduate Research School Board oversees all aspects of quality assurance related to graduate research education in line with QQI sector guidelines as well as the Statutory Quality Assurance Guidelines developed by QQI for Providers of Research Degree Programmes.
The Graduate Research Regulations, now in their 7 <sup>th</sup> edition, include measures for the quality assurance, enhancement and improvement of research programmes, continuous quality monitoring, supports for maintaining and enhancing quality of supervision, mentoring staff, joint supervision, and training and career preparation. In conjunction with the Staff Learning & Development Office, measures to support researchers include: <ul> <li>'Licence to Supervise' training programme for all new supervisors</li> </ul>
<ul> <li>Mentoring programme coordinated by the DIT Staff Learning and Development, including training for mentors and mentees, with a focus on research development and supervision skills</li> </ul>
<ul> <li>Research and Professional Development Planning embedded within the Structured PhD programme</li> </ul>
<ul> <li>Progression of the research programme integrated within quality assurance arrangements overseen by the</li> </ul>
Graduate Research School and College Boards
An important feature of the growth in research student numbers has been the enhancement of quality through development of critical mass in key research areas, enabling sustainable clusters of research expertise to develop, supported through an
organisational framework that integrates research activity within Research Groups, Centres and Research Institutes. A
organisational framework that integrates research activity within Research Groups, Centres and Research Institutes. A fundamental objective of DIT research strategy has been to concentrate and consolidate research activity, including doctoral

		<ul> <li>have access to leading expertise and experience within their research field. Accordingly, research students are accommodated within high quality research environments, including the Focas Research Institute and the Greenway Research and Innovation Hub, to ensure their integration within the research community.</li> <li>DIT recognises that its targets for research student numbers are ambitious but is confident these can be achieved and sustained in advance of application for TU designation. With its partners, DIT has approached the growth of the research student base in a holistic way, looking towards the long-term strategic goal of a trajectory to increase to 7% research student enrolment as integral to its vision of TU4Dublin as a significant source of research and discovery aligned with best international practice.</li> </ul>	
<ul> <li>KPI 3 - Research Income (€M) (Original Compact Indicator)</li> <li><i>Revised to:-</i></li> <li>KPI 3 - External Research Award Value (€M) per annum</li> </ul>	The baseline for research award value in 2014 was €5M	Target         In Cycle 3, we amended the KPI to 'research award value' as the more appropriate indicator with a target of €5.75m research award value in the final target year of 2016.         Commentary         In 2016, the total value of externally funded competitive research grants was €5,774,795, thus approx. €25k above the target.         This good performance reflects the outcome of measures implemented under DIT's Research Action Plan aimed at enhancing capacity and capability to secure external competitive research grants. Over the course of the Compact period, there has been a steadily rising performance year-on-year with improved performance in the number of grants above the €100k threshold.         Additional measures have included increased grant writing support, investment in research information systems to support more efficient research administration and management, and improved data analytics. This, allied with the support provided directly to proposal writers and Principal Investigators has assisted in prioritising research opportunities of scale and focused greater attention on strategically targeting areas of particular strength.         The adjustment of the KPI to record external research award value rather than total research income, as agreed with the HEA in Cycle 3 of the Strategic Dialogue, has borne fruit and brought about a more strategic approach with targets that are transparent and more amenable to planning and achieving results. DIT is committed to continuing this approach.         DIT's Academic & Research Committee closely monitors the research award pipeline as well as research expenditure as reported annually in the Annual Knowledge Transfer Survey (AKTS). Progress by funding stream and by research thematic are assessed each month and interventions put in place to e	
KPI 4 - Publications per year	The baseline in 2012/3 was a total of <b>588</b> <b>publications per annum.</b>	Target 2016/17       - The final target is 1000 publications per annum         Commentary         The total publication count in 2016 was 906 outputs as returned in sources including DIT's repository (Arrow), Scopus, Web of Science and Google Scholar. While this is below the absolute target by less than 10%, there is strong evidence of a shift in the balance from quantity to quality in research publications and outputs, with a consequent significant increase in impact. There has also been a year-on-year increase from the base of 588 publications in 2013, 823 outputs in 2015 and 906 recorded in 2016.         DIT has maintained a good performance in scholarly output over the period of the Compact. We have implemented a publications strategy to target higher impact journals supported by investment in researcher training and learning resources, bibliometric tools and publishing expertise to assist academic staff in developing their publication and dissemination strategies.         Over the period 2013-2016, DIT recorded a total of 1330 scholarly outputs in Scopus, maintaining a steady performance over each year. In this period: <ul> <li>International collaboration went up from 48.9% in 2015 to 54.5% in 2016</li> <li>Scholarly output increased from 315 in 2015 to 321 in 2016</li> <li>Over all field weighted citation impact increased from 1.11% in 2015 to 1.19% in 2016.</li> <li>Outputs in top 10% citation percentile went up from 12.7% in 2015 to 21.20% in 2016</li> </ul>	

	Publications in top 10% of journals increased from <b>33.2%</b> in 2015 to <b>36.10%</b> in 2016
	The shift towards higher quality outputs is reflected in a greater emphasis on scholarly articles over conference papers with 213 articles as against 58 conference papers recorded in Scopus in 2016.
	Importantly, DIT has improved its citation performance with a number of areas in which DIT researchers are leaders in field weighted citation impact in their respective disciplines in Ireland ( <i>Source: SciVal</i> ). Where 1 = world average, examples include:
	• <b>Biochemistry</b> , DIT leads at 2.16 field weighted citation impact (8.1% in top 10% of journals) followed by UCC at 1.88% field weighted citation impact.
	• <b>Bioengineering</b> , leader at 2.75% field weighted citation impact (45% in top 10% of journals), followed by University of Limerick at 2.14% field weighted citation impact.
	• <b>Catalysis</b> leader at 4.08% field weighted citation impact (11.1% in top 10% of journals), followed by Maynooth University at 2.56% field weighted citation impact.
	• <b>Process Chemistry and Technology</b> , leader at 4.69 field weighted citation impact (57.1% in top 10% of journals), followed by DCU at 2.79 field weighted citation impact.
	• Electrochemistry, leader at 2.26% (6.7% in top 10% journals) followed by Galway at 1.83% field weighted citation impact
	• Environmental Sciences leader at 2.15 (47.5% in top 10% of journals) followed by Maynooth University at 1.97% field weighted citation impact.
	• Environmental Engineering, leader at 3.26% (71.4% in top 10% of journals) followed by UCD at 1.96% field weighted citation impact.
	• <b>Toxicology</b> leader at 2.30 (23.1% in top journals), followed by University of Limerick at 1.96% field weighted citation impact
	DIT remains a leader in Open Access publishing in Ireland, demonstrated in the mandating of deposit of scholarly outputs in the institutional repository <i>Arrow</i> (Digital Commons). Over the period 2012-16, 6,387 items were uploaded to the repository and 4,139,286 items were downloaded across a full spread of disciplines. The top article was downloaded a total 79,864 times.
	DIT is unique among the educational institutions in Ireland in publishing a number of peer-reviewed, open access journals involving DIT Editors hosted on Arrow. There is also a broad spread of disciplines. Publishing journals demonstrates engagement with the scholarly communication process and the dissemination of research. It is also a practical means of educating students in the journal submission process.

# 5. Enhanced engagement with enterprise and the community and embedded knowledge exchange

#### **Overarching Statement**

Knowledge transfer and enterprise support play a central role in DIT's goal to be an engaged institution, embedded with its stakeholders, with high quality engagement creating impact and influence. DIT's research and innovation activity supports the development and growth of enterprise in the region and is mapped according to KPIs and targets that are at the level of the best performing universities in Ireland. Through the Hothouse enterprise programmes, DIT has helped to create over 200 new ventures and 1,600 jobs. This activity which has been a pioneer in Irish higher education for many years, moved into a new phase during the period of the Compact, through the establishment of the Hothouse incubator on the new DIT campus at Grangegorman. Adjacent location now enables DIT to take full advantage of the Hothouse expertise and experience and create greater entrepreneurial activity amongst the academic and student community in the future.

DIT also has a very strong track record in technology transfer. DIT leads the Dublin Region Innovation Consortium (DRIC) which consists of DIT, ITT, ITB, IADT, NCI and DIAS. DRIC was recognised in 2016 by Knowledge Transfer Ireland (KTI) as the top performer in commercialising research. DRIC has consistently out-performed other consortia every year for the last 4 years. On average for every €10m of research funded, DRIC closed 10 Licences, Options or Assignments (LOAs) of the technologies to companies and launched at least 2 new start-up companies.

Of course DIT is probably best known for its work with established companies, be it in terms of student scholarships; work placements, continuing professional development or research collaborations. All of these continued during the period of the Compact, with many of the relationships becoming more embedded. Some examples are given in the detailed commentary.

In terms of community engagement, DIT has a special role in Dublin inner city. In addition to work mentioned elsewhere, such as the Grangegorman Learning & Labour Forum, the Grangegorman ABC programme and the 'Students Learning with Communities' programmes, DIT engages with many community groups with the aim of enhancing educational opportunities and impacting positively on the lives of its citizens. DIT is committed to continuing this work, particularly around the new campus at Grangegorman.

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
objective To be valued by academic, industry, community and other partners, nationally and internationally, for the transfer of knowledge and skills relevant to sustainable development	indicator Number of participants in the DIT Corporate Partnership Network	Year 2012/13 20 Organisations	Final target, end 2016, commentary and data source         Target - Year 2016/17 - 30 Organisations         The target has been achieved.         The Corporate Partnership Network has been a key relationship management initiative in DIT for the past five years.         In 2016, the focus has been on ESHI Connect. Based on the Environmental, Sustainability and Health Institute (ESHI) at DIT's new campus at Grangegorman, ESHI Connect aims to engage all relevant stakeholders in addressing key environmental and sustainability lisuses, sharing knowledge to create collaborative solutions and creating opportunities to advance the development of environmental technologies and solutions. Current participants in ESHI Connect include:-         Bord na Mona       Collite Teo       IBM       Intel Ireland         Enterprise Rent a Car       Veolia       Radisson Blu       Microsoft Ireland         Kerry EMEA       Abbott Nutrition       Gas Networks Ireland       ESB         Transdev Ireland       Est       Forstgraduate Sponsorships - including two Masters programmes supported by IBM in the area of Internet of Things, a PhD programme in STEM Education with Intel, and two PhDs with Bord na Mona, one in the area of aquaculture and one focusing on bicchar.         P Programme Accreditation and Development with Gas Networks Ireland (GNI)       Facilities/Equipment Support - An Internet of Things (IoT) Lab has been established in DIT with the kind financial support of Intel Ireland. Based in the Kevin Street campus, the lab has facilitated the roll out of a specific IoT module, which is available on two level 8 undergraduate engineering degree programmes.	Summary
			<ul> <li>Partnerships with professional bodies who have initiated programmes to develop professional competencies among their membership - e.g. Marketing Institute of Ireland; Chartered Accountants of Ireland, Institute of Taxation in Ireland; Association of Chartered Certified Accountants; Chartered Institute of Logistics &amp; Transport; Chartered Institute of Personnel Development; Society of Chartered Surveyors Ireland; Engineers Ireland</li> </ul>	

<ul> <li>DIT partners with government agencies that have initiated programmes to meet national skill deficits - e.g.</li> <li>Enterprise Ireland; National Procurement Service; Irish Air Corps</li> </ul>
<ul> <li>DIT partners with sectoral groups to showcase the work of students – e.g. the Computing Project Fair, involving companies such as:- Amazon; Blue Insurance; Blueface; Cellusys; Devhaus; Docosoft; Equifax; Escher Group; Evros; Fidelity Investments; Fijowave; Google; Guidewire; IBM; Irish Life; KBC; Kerry Group; Liberty; Merrill Lynch; Munich RE; New Ireland; Ocuco; Openet; Patientmpower; RCSI; Recommender X; Salesforce; SAP; SIG; Skylads; Sonalake; Synchronoss; TheKubicle; Thinksmarter; Trimble; Version 1; Workday; WorldNet; Zoo</li> </ul>

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be valued by academic, industry, community and other partners, nationally and internationally, for the transfer of knowledge and skills relevant to sustainable development	Level of technology transfer and enterprise support activity under selected metrics:-	Year 2012/13	Year 2016/17	
	KPI 1: Spin-outs	3 spin-outs during the baseline year of 2012/13	Target - 4 spin-outs per annum to be achieved as a final target         Commentary         2 spin outs were established in 2016 below the annual target of 4. However, this is balanced by an exceptional performance in 2015 with 6 spin-outs (or 20% of the total national activity in spin-out creation).         One of DIT's spin-out companies, Kastus Technologies won the KTI 2016 Spin-out of the year Award. Kastus was also the recipient of the first investment of €1.5m by the Atlantic Bridge University Fund.         At the end of 2016, DIT has a total of 11 active spin-outs in existence. Over the period 2013 to 2015 under the TTSI2 programme, DIT with its partners created 18 Spin-outs, 6 of which have already become High Potential Start-ups (HPSUs) with an estimated 140 new jobs in the economy.	
	KPI 2: Licences/Options/ Assignments	10 LOAs during the baseline year of 2012/13	Target - 10 LOAs per annum to be achieved as a final target         Commentary         11 LOA completed exceeding the target of 10. The total achieved represented 25% of LOAs in the technological sector. The targets for the period of the Compact were ambitiously set at the level of the best performing Universities in Ireland.         License deals completed during this period have led to the market launch of 23 products or services. Examples include 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.	
	KPI 3: Research Agreements with industry	4 Research Agreements during the baseline of 2012/13	Target       -5 research agreements per annum to be achieved as a final target         Commentary       The 5 research agreements signed were specific contracts signed with companies to enable the company to use facilities and equipment at DIT.         16; MNC x 2). The remainder consisted of Innovation Vouchers (IVs) which have represented a smaller portion of DIT activity in this area. With a view to growing the volume of Innovation Voucher activity as a basis for seeding new research collaborations, DIT has appointed a Development Manager to streamline the process of delivering IVs.	

-	KPI 4: Invention Disclosures	38 Invention Disclosures during the baseline of 2012/13	Target- 30 invention disclosures in the final target yearCommentaryWe again achieved 38 inventions disclosed in 2016. This represents just under 10% of all national activity in invention disclosures and 38% of the activity in the technological sector.	
	KPI 5: Priority Patent Applications	5 Priority Patent Applications during the baseline of 2012/13	Commentary         We filed 10 initial patent applications. However, this is balanced by an exceptional performance in 2015 when 15 patent applications were filed.	
	KPI 6: PCT Patent Applications	2 PCT Patent Applications during the baseline of 2012/13	Commentary         5 PCT applications were filed.	
Ν	KPI 7: No. Hothouse New Frontiers programmes	2 New Frontiers Programmes during the baseline of 2012/13	Target       - 2 Hothouse New Frontiers programmes to be offered during 2015         Commentary       2 programmes completed in 2016	
P	KPI 8: No. Participants Hothouse new Frontiers programme	30 Participants HH New Frontiers Programme during the baseline of 2012/13	Target       - 30 total participants in Hothouse New Frontiers programme         Commentary       30 participants completed the New Frontiers in 2016         In 2016, the New Frontiers programme was successfully delivered for the first time from its new base in the Greenway Hub, DIT's flagship research and innovation hub on the Grangegorman campus. Offering state-of-the-art facilities for enterprise support and development, the facility now hosts an Incubator which over the course of 2016 supported 37 new companies.         In 2016, DIT also introduced the Student Entrepreneur Academy, a new student incubator initiative. Through this programme, DIT students who are starting a business can avail of office space, support and business mentoring from DIT Hothouse.	

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be valued by academic, industry, community and other partners, nationally and internationally, for the transfer of knowledge and skills relevant to sustainable development	Active participation in regional/civic networks	<ol> <li>Year 2011/12</li> <li>Founding member of 3 networks: Creative Dublin Alliance, The Green Way &amp; Activating Dublin</li> <li>Active member of Dublin Chamber of Commerce and IBEC's Dublin region</li> <li>Strong relationship with Dublin City Council</li> </ol>	<ul> <li>Target Year 2016/17 <ul> <li>Active participation in: Creative Dublin Alliance, The Green Way below board level, on at least 4 initiatives</li> <li>Four new active collaborative initiatives within the Dublin/Leinster Pillar II, commencing since October 2013</li> <li>Continued participation in Dublin Chamber of Commerce and IBEC'S Dublin region</li> <li>Continued engagement with Dublin City Council</li> <li>Partnership with the Railway procurement Authority on the launch of the LUAS cross-city line.</li> </ul> As other regional/civic initiatives develop, DIT will engage pro-actively as we currently do in:- <ul> <li>The Grangegorman Labour &amp; Learning Forum</li> <li>The Living Knowledge Network</li> </ul> Commentary <ul> <li>In terms of the Creative Dublin Alliance and the Greenway, DIT advised the following in its previous Self-Evaluation Report</li> <li>The Creative Dublin Alliance work completed and DIT connectedness to the creative sector remains strong via music and at at major public venues.</li> <li><u>The Green Way</u> initiatives. See http://sustainable.Nation Ireland. DIT has been an active leader and participant in many of its initiatives. See http://sustainable.nation.ie/</li> <li>DIT continued it engagement with both networks in a similar fashion during 2016</li> <li>DIT's participation in the Dublin/Leinster Pillar II is focussed on the development of TU4Dublin – see sections 1 &amp; 7.</li> <li>DIT has continued its participation in the Dublin Chamber of Commerce (with members on the council) and in IBEC's Dubin region</li> <li>The construction of the DIT Campus at Grangegorman is recognised as a strategic objective for the city within the Dublin City Council, Joubin Chamber of Commerce, IBEC, CDETB, NTA,HSE, Intro and many Government agencies and community related groups. Dublin City Council is a member of the Grangegorman Labour &amp; Learning Forum</li> <li>The Grangegorman Labour &amp; Learning Forum – See next section</li> </ul></li></ul>	

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To be valued by academic, industry, community and other partners, nationally and internationally, for the transfer of knowledge and skills relevant to sustainable development	Active participation in community-related initiatives	Year 2012/13 <ol> <li>14% of programmes with SLWC element, as in section 5.3</li> <li>Founding member Grangegorman Labour &amp; Learning Forum</li> </ol>	<ol> <li>Target - Year 2016/17</li> <li>25% of programmes with SLWC element, as in Section 3</li> <li>Active participation in Grangegorman Labour &amp; Learning Forum, on at least 3 initiatives</li> <li>Commentary</li> <li>As indicated earlier in this Self- Evaluation Report, DIT, through the Access &amp; Civic Engagement Office is maintaining a strong emphasis on embedding SLWC activity with DIT's mainstream programme provision for a variety of reasons. These reasons include promoting student and community engagement, promoting and enhancing the overall student experience and the quality of the education provided by DIT. Through SLWC the overall connectedness of the student with the Institute is enhanced and in turn this contributes to greater student retention. Greater contact with the community assists in resolving problems at community level and also promoting greater mutual understanding and by extension widening participation.</li> <li>The Grangegorman Labour and Learning Forum (GLLF) is a coordinating group for much activity (see - www.gllfie). DIT is a founding partner in GLLF. Its main aim is to ensure that opportunities arising from the Grangegorman Development will benefit and improve the quality of life of local people and communities, primarily but not exclusively in terms of employment, education &amp; training, and business &amp; enterprise. The Chairperson of the GLLF is firgid McManus, a former Secretary General of the Department of Education and Skills. Kathleen McCann is the full-time Employment and Training Coordinator who works with the GLLF to develop and implement projects and initiatives. The GLLF pays a key role in supporting the activity of the Grangegorman ABC Programme and assists in inputting to initiatives and implementing the activity of the Grangegorman site. Under the terms of the Charter, a minimum of 20% of new jobs created on projects are offered to regidents of the Grangegorman neighbourhood in the first instance and, after that, to residents of the surrounding areas</li></ol>	

## 6. Enhanced internationalisation

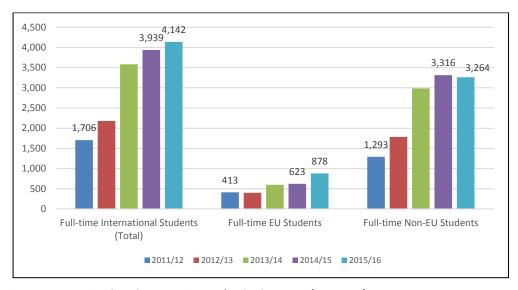
## **Overarching Statement**

DIT has been growing its international student number steadily in the last five years and this has brought many benefits to the Institute and the student body. However, in tandem with colleagues in the TU4Dubin Alliance it was recognised that it was important to move from the recruitment of International students to internationalisation of all Institute activities. Hence an internationalisation strategy for the TU4Dubin partners was developed during 2016. This set out the key aims as follows:-

- 1. Ensure that the university has an international staff and student body;
- 2. Enhance quality in learning, research and engagement activities to become an international university;
- 3. Engage students with internationally informed curriculum, research and cultural and linguistic diversity;
- 4. Build international & amp; intercultural capacity and develop interculturally competent students;
- 5. Ensure that internationalisation is embedded into all core activities of the University;
- 6. Provide an opportunity for every TU4D student across all programme levels to experience an international dimension to their educational experience;
- 7. Build internationalisation on the particular disciplines and strengths of the university; and
- 8. Harness the economic impact of internationalisation for the benefit of the University and the greater Dublin region.

DIT is now pursuing this strategy and expects to deliver on objectives in a phased manner.

Institution Performar objective indicato	Rasolino	Final target, end 2016, commentary and data source	Summary
To ensure a sustainable position for DIT as an international higher education provider Within an overal Strategy on Internationalisat which centres or moving from stu recruitment of international students to internationalisat of all Institute activities from research, learnin teaching - curric staff mobility, industry engage community – set learning, regiona engagement, placements, internships and offshore delivern well as in develor strategic partnerships.	I DIT ion dent on g & ila, nent, vice I	Target - Year 2016/17 - 1,025 Commentary 775 Non EU international students were enrolled in in DIT 2016/17 along with 102 Full time EU students (paying the reduced EU fee), with a further 279 DIT Erasmus students going abroad. In 2015/16 DIT accounted for over ½ of all full time non-EU students enrolled in the IOT sector – See Figure 20. In establishing a target of 1,025 for 2015/16 DIT was conscious that the very successful 'Science Without Borders' (SWB) international student programme would be concluding and would not continue into 2016/17 with a loss of circa 230 Brazilian students. Hence, the target figure was set at 1,025 for Non EU International students. The feeling within DIT was that while the SWB scheme was being dropped underlying numbers would continue to grow in alternative markets enabling overall targets to be met. This did happen in some market areas most notably China. However, the economies of the Middle East in particular Saudi Arabia and Kuwait did suffer and resulted in a reduced number of students coming to Ireland and to DIT. Over recent years there has been a move to diversify our markets to target students and for the academic year 2016/17 20 countries are represented within our Non-EU student cohort. In diversifying markets the DIT has attended International Recruitment fairs in Mexico where visa arrangements are good between Ireland and Mexico is yielding more applications as is India & Pakistan. In addition the potential to capture scholarship schemes targeting Non E.U. International Recruitment fairs in Mexico where visa arrangements. In 2016, DIT, ITB & ITT approved a TU4D International Research Students;      Internationalization of the Curriculum;     Already, DIT advertises all full time staff positions international Research Students;     Internationalisation of Non-EU students to study, as the concept of an Institute of Technology has limited recognition for potential students. This continues and in 2015/16 DIT received 357 students v5 279 outgoing. DIT is seeking to develop	



**Figure 20 - International Enrolments- Institutes of Technology - 2011/12 to 2015/16** *Source – HEA Statistics* 

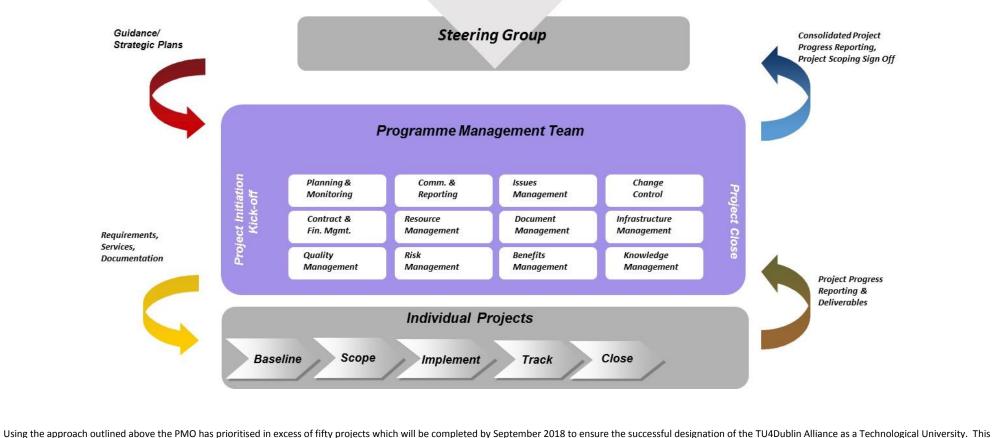
Country	Higher Education Institutions					
Argentina	Universidad Argentina de la Empresa					
Australia	University of Canberra	Royal Melbourne Institute of Technology				
Canada	Bishop's University	University of Guelph				
	Concordia University	University of Ontario Institute of Technology				
	Memorial University Newfoundland	University of Prince Edward Island				
	Ryerson University					
Korea	Yonsei University	Pukyong in Busan				
USA	City University of New York	University of Texas				
	Seton Hall University	University of Central Florida				
	Florida Atlantic University	Southern Utah University				
	Southeast Missouri State University					

Table 3 – DIT Study Abroad Partners

## 7. Institutional consolidation

## **Overarching Statement**

The TU4Dublin Alliance has a stated aim of creating a new Technological University for Dublin through consolidation of three existing Institutes namely Dublin Institute of Technology, Institute of Technology Blanchardstown and Institute of Technology Tallaght. The Alliance has successfully completed three stages of the four stage process for designation as a Technological University as set out by the HEA. The TU4Dublin Alliance is on target to achieve designation in 2018 subject to enactment of the required legislation in accordance with the legislative timetable published by Government. To ensure that the final phase of this exciting project is completed in a timely manner the Alliance has now set up a formal Programme Management Office the operation of which is depicted below.



Using the approach outlined above the PMO has prioritised in excess of fifty projects which will be completed by September 2018 to ensure the successful designation of the TU4Dublin Alliance as a Technological University. This work is being undertaken through the management of seven programmes which deliver on the agreed strategic vision of the TU4Dublin. These programmes are also integral to the delivery of the three individual strategic plans which were prepared collaboratively by the partner institutions with the oversight of a joint Governing Body Strategy Group. Work has now commenced on the strategic plan for the new University. A schematic showing the high level goals of the three strategic plans and how the TU4Dublin programme office is assisting in delivery is included below.

Pri	ITB mary Strategic Goa	als	DIT Strategic Themes	ITT Strategic Pillars
	Transform into a TU		TU Designation	TU Designation
	Teaching & Learning		Distinctive Experiential Student Experience	Career oriented Quality Teaching & Learning
	Research, Enterprise, Innovation		Force for Research and Innovation	Research, Innovation, Enterprise
	Engagement		Engaged Institution	Enhance Engagement with Industry and Community
	Internationalisation		International Institution	Internationalisation
	People		Great People, nurture, support and harness talent; <u>Grangegorman</u>	People & Culture Campus Development
	Structures and Systems		Effective Organisational Arrangements Efficient Operations, Systems, Facilities	Build organisational capability Enable staff Raise quality of services brive professional excellence

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
Enhance DIT's national and international positioning through appropriate designation, mergers and collaborations	Establishment of a Dublin technological university with formal designation, with TU4D Alliance partners, ITB and ITT - Implementation of priority actions as set out below:-	<ul> <li>MOU in place</li> <li>Proposal to HEA regarding positioning within the HE landscape submitted and accepted by Minister</li> <li>Programme plan for TU4D development in train</li> </ul>	Original targets         1.       Implementation of priority actions within TU4D programme plan         2.       Application for designation as a Technological University         Revised targets       1.         1.       Implementation of priority actions within TU4D that do not require legislation         2.       Application for designation as a Technological University when legislation permits         2.       Application for designation as a Technological University when legislation permits         Commentary       1.       The TU4Dublin Alliance is on target to achieve designation as a Technological University in 2018. Implementation of priority actions are set out below         2.       Work in preparation for application has been substantial and is reflected in the profile of the TU4D with respect to the criteria.	
	- Establishment of joint Graduate Research School	None	Target 2016 - Full implementation of the joint Graduate Research School as set out in the joint Collaboration Agreement.         Commentary         The joint Graduate Research School (GRS) is now fully operational and functions under the leadership of the Head of the Graduate Research School and a Director, with a mandate across the 3 TU4Dublin partners.         The inter-institutional signed by all three partners in 2015 provides the basis for GRS operations to facilitate module delivery, student mobility and credit exchange for research programmes according to an agreed common framework.         The Graduate Research School Office provides a common support service to all members across TU4Dublin including: - <ul> <li>marketing of PhD and MPhil opportunities,</li> <li>recruitment of graduate research students,</li> <li>maintenance of the graduate research registers,</li> <li>administrative support for the programmes,</li> <li>provision of events to enhance the graduate research student learning experience and</li> <li>promotion of the achievements of the graduate research community.</li> </ul> The GRS Board with representation from all three Institutes meets monthly to oversee quality assurance of graduate research. The joint GRS Board has responsibility for developing and monitoring the administration of the regulations for postgraduate studies through research.         The GRS operates an agreed system of transitional arrangements for the conduct and awarding of research degrees prior to TU designation. It provides an important opportunity to offer an integrated approach for delivery of Masters and doctoral education, including provision for joint supervision and collaborative research.	
	- Development and implementation of Structured PhD programme	None	Commentary         The Structured PhD programme was successfully validated in 2014 and rolled out on a pilot basis throughout 2015. The programme was implemented in full from Sept 2016 with all new students registered at DIT, ITT and ITB have enrolled on the	

 -			
		structured PhD programme. The Structured PhD programme is fully aligned with the National Framework for Doctoral Education.	
		Student registering to the programmes are initially registered to MPhil Programme, and transfer to the PhD upon successful completion of a confirmation examination at the end of Year 2 of the programme. <u>http://www.dit.ie/researchandenterprise/graduateresearchschool/</u>	
		The registered students must gain the following credits in their first year: 7.5 ECTS Credits for the Research and Professional Development Plan (RPDP); 10 ECTS Credits employability skills training, and; 10 Credits for discipline specific training. The modules contributing to the employability skills training and discipline specific training are electable from NFQ Level 9 modules delivered by the alliance members. See examples of selection range from Semester 2 Module Descriptors at: <a href="http://www.dit.ie/researchandenterprise/graduateresearchschool/currentresearchstudents/">http://www.dit.ie/researchandenterprise/graduateresearchschool/currentresearchstudents/</a>	
		The Structured PhD Programme is designed to enhance graduate employability within the economy, both within a graduate's discipline area but also in sectors and roles not directly linked to their academic background. The programme includes formal induction, progress monitoring, regular professional development, and access, in accordance with individual needs, to disciplinary skills development opportunities.	
		The programme structure is designed to be flexible so as to facilitate both full-time and part-time modes of study and also incorporates masters and postgraduate diploma students.	
		A success of the programme to date has been the creation of a common framework for the 600 DIT, ITT and ITB research students from diverse disciplines, enabling the sharing of experience, the fostering of interdisciplinary modes of problem solving and discovery and the support for learning at the interface between different knowledge domains.	
		The annual Graduate Research School Symposium is an illustration of this approach. Research students and supervisors from all three partner institutions join together in an inspiring event with oral and poster presentations spanning the four designated research themes: Environment, Energy and Health - Information, Communication and Media Technologies - New Materials and Devices - Society, Culture and Enterprise.	
 - Delivery of joint	None	Target 2016 - Please refer to Section 5	
technology transfer measures		<b>Commentary</b> As partners in the Dublin Region Innovation Consortium (DRIC), DIT, ITT and ITB have longstanding successful experience of working together in the delivery of joint technology transfer measures. The DRIC consortium was established to maximise the impact of research in the member institutions. The consortium has an outstanding record in the licensing of new technologies and support for start-up companies achieving overall four times more commercial licences and four times the number of spin-out companies compared to higher education institutions generally in Ireland and internationally.	
		The DRIC consortium has a particular focus on the translation of research into new products and new services that have real economic impact. A mid-term review by an international panel commissioned by KTI noted that this "was a gold standard consortium with a good sense of purpose, where all partners are treated with equality. The panel noted good staff management practices at the lead institution implementing a full range of staff management processes resulting in a high performing TTO team." (KTI Mid-term review, 2015).	
		Following a successful bid under the TTSI3 programme, the partnership now includes the Dublin Institute for Advanced Studies (DIAS) and has developed a specific focus on the SME sector, with easier access to knowledge transfer expertise and improved engagement with the start-up ecosystem supported by each of the partners.	
 Drogross with	Nora	Full details of the achievements under agreed targets are set out in Section 5 above.	
<ul> <li>Progress with respect to the development of</li> </ul>	None	Target 2016 -         1.       Progress re; implementation of identified aspects of the overall TU4Dublin curriculum framework.         2.       Identified 'Programmes of the Future' in place.	

the overall curriculum framework for TU4Dublin		<ul> <li>Commentary</li> <li>Academic Policies Reviews</li> <li>Quality Assurance and Quality Enhancement Policies &amp; Procedures (QA-QEPP), including Marks and Standards (M&amp;S)/General Assessment Regulations, will provide the overarching framework for the development and delivery of the TU4Dublin programmes.</li> <li>The specific work that has been undertaken in the area is as follows:-         <ul> <li>Terminology review and standardisation of terms for QA, incorporating M&amp;S</li> <li>Building on internal review and setting out current processes/ steps/ policies &amp; practices in respect of QA and M&amp;S for taught programmes;</li> <li>Building on internal review and setting out current processes/ steps/ policies &amp; practices in respect of QA and M&amp;S for Research activities.</li> </ul> </li> </ul>	
		<ul> <li>TU4D Curriculum Framework <ul> <li>The Graduate Attributes for the TU4Dublin have been developed.</li> <li>The underlying characteristics of the Curriculum Framework for all TU4D programmes - including practice based teaching and learning, research informed teaching, progression pathways, work based learning, employer links in curriculum design, strong professional/vocational focus, flexible delivery, regional provision, multi- and transdisciplinary themes in programme design and delivery, and a commitment to lifelong learning have been developed.</li> <li>Alignment of existing L6-L8 programmes to the TU4D Curriculum Framework, has commenced with a pilot in the Architecture, Engineering and Construction (AEC) provision. The Pilot initiated work in 6 thematic areas, including:         <ul> <li>(a) Taught masters programmes;</li> <li>(b) Internationalisation;</li> <li>(c) Working at existing programme level;</li> <li>(d) Industry &amp; professional engagement;</li> <li>(e) New opportunities for enterprise and innovation (including new academic programmes), and;</li> <li>(f) Research</li> </ul> </li> <li>The outcome of the AEC working-group on Mechanical Engineering (MechEng) developed new arrangements to deliver MechEng programmes in the new TU and proposed a three year, phased approach to the consolidation of delivery.</li> </ul></li></ul>	
		TU4Dublin 'Programmes of the Future'         Seven programmes and modules across a range of NFQ Level 6 to Level 9 programmes were developed collaboratively between the TU4Dublin partners. These included:- <ul> <li>Masters in Applied Culinary Nutrition;</li> <li>MA in Management for the Non-profit Sector</li> <li>MEng in the Internet of Things Technologies;</li> <li>MA in Social Research.</li> </ul> Modules in mathematics to support the transition from further education to higher education were developed. The following links provide examples of the developed content: <ul> <li>https://www.youtube.com/channel/UCjZlIX9YZuEyljLWefruaHg</li> <li>https://www.youtube.com/channel/UCToDUyU4j6rCNBOEuouD0EQ</li> </ul> In addition a module on, "Emotional and social competency training for final year students" was developed and delivered. Details are available at:.	
- Development and implementation of 1 <sup>st</sup> Year Experience	None	Commentary	

(FYE) strategy		<ul> <li>Strategies for 1st year experience have been developed and implemented.</li> <li>Examples of the projects that have been delivered include: <ul> <li>Group Work, Research and Presentation Workshops;</li> <li>Virtual learning community &amp; environments;</li> <li>The Global Classroom</li> <li>Peer mentoring &amp; peer-assisted learning programmes<sup>7</sup>;</li> <li>Web-based Stimulating Learning System;</li> <li>Transitioning support systems such as; learner profiling, creativity boot camp, digital library welcome-pack,</li> <li>Introduction to integration of Professional Practice in teaching and learning;</li> <li>Transitioning Mathematics for STEM Programmes.</li> </ul> </li> </ul>	
Identification of issues pertinent to integrated student services in TU4Dublin	None	Target 2016 - Continue to develop student services transition plan. This will be implemented upon confirmation of merger date.         Commentary         The student services transition plan is under development. The work is being carried out within seven identified work packages as listed below.         • Application to Acceptance process for applicants.         • Student recruitment and marketing of programmes.         • Registration and Fee Payment.         • Identification of Enhanced Programme Opportunities for Current Students         • TU Exams Process         • Induction and Orientation         • Access and Widening Participation         25 projects are currently underway and will be delivered by September 2018.	
- Development of strategy for embedding engagement and enterprise characteristics in TU4Dublin	None	Target 2016 - Implementation actions to be mainstreamed across the TU4D partner institutions.CommentaryThe TU4Dublin alliance considers engagement as significantly important because it offers multi-lane opportunities for meeting its mission. A key challenge is for engagement to be a central force to illustrate institute wide commitments. Embedding of engagement requires development of KPIs to measure success in terms of co-ordinated responses to requirements and opportunities for multi-level collaboration with the diverse communities.Work undertaken in the TU4Dublin Foundation Theme, Dublin's Globally Engaged University: The Enterprising University, has drawn together institutional strengths and commitment to engagement previously established in DIT, ITB and ITT to explore how best the nature, rationale, extent and centrality of an engagement and enterprising culture can infuse the work of the technological university. To do this each working group explored and shared knowledge, experience, and insights through a process of consultation, research and discussion with a very wide cross-section of stakeholders of all types, from staff and students to external organisations and individuals, in the period from September 2014 to June 2016. The process took the draft TU4Dublin Mission, Vision and Values as the starting point. The progress to-date, which includes identification of implementation actions to be mainstreamed across the TU4D partner institutions are covered in the TU4Dublin 2016 report, Creating an Engaged University.Examples of actions that are being implemented include:-The Agreed Actions, as follow-on to the Engagement Report are:	

<sup>&</sup>lt;sup>7</sup> Webb, N., Carthy, A. and Cox, D. (2016) You've got a friend in me – peer mentoring and the first year experience. Paper presentation at the Higher Education in transformation conference, November 2-4, 2016 Oshawa, Canada.

		<ul> <li>Complete the pilot of the Carnegie Community Engagement Framework in Ireland (pilot completed and reported at:         <ul> <li><u>http://www.itb.ie/AboutITB/documents/CarengieFirstTimeClassifcation Document-</u><u>ITBreportforTU4DsubmissionR1.pdf</u> ), and build on the cross-campus collaboration to identify synergies and agreed metrics for civic engagement;</li> <li>Deliver on the outputs of the Carnegie Community Engagement Framework in Ireland;</li> <li>Agree and develop a co-ordinating structure for all engagement activities for the technological university, including</li> </ul> </li> </ul>	
		<ul> <li>a one-stop-shop interface for all stakeholders to manage all engagement activities for the technological university;</li> <li>Develop a "sources of revenue model" for the technological university;</li> <li>Introduce the model for student internships into the Technological University Curriculum Model as part of the process in transforming programme provision;</li> <li>Develop cross-campus staff development programmes for engagement;</li> <li>Integrate cross-campus engagement activities, to include careers and internship programmes, under one coordinating organisational unit;</li> </ul>	
		<ul> <li>Develop an optimal model in conjunction with the Finance workgroup to reward areas of the technological university that deliver on strategic targets in such areas as innovation, student recruitment, retention, progression, and collaboration with both internal and external clients;</li> <li>Work with academic teams and stakeholders to develop engagement modules and content appropriate by level, stage and discipline as features of the technological university Curriculum Model;</li> <li>Work with student services to develop a plan for implementing student engagement within the technological university;</li> <li>Conduct a socio-cultural and economic impact of TU4Dublin.</li> </ul>	
- Joint prospectus and entry in CAO handbook/ website	None	Target 2016 - Subject to confirmation of merger date.         Commentary         The TU4Dublin project is on target for designation as a Technological University in 2018. Work has commenced on the design and development of a website for the new University which will provide information on the programme offering and entry mechanisms. The processes are in place to produce a joint prospectus and entry in the CAO handbook on designation.	
- Joint marketing to international student markets	None	Target 2016 - Continue to develop international office transition plan. This will be implemented upon confirmation of merger date.         Commentary         A joint international strategy has been developed and is currently being implemented         As part of the joint activities with international perspectives, the TU4Dublin Alliance signed a Memorandum of Understanding with University of Ontario Institute of Technology, and Durham College to create the Canada-Ireland: Centre for Higher Education Research, Policy and Practice (CHERPP) <a href="http://www.tu4dublin.ie/news/alliance-strengthens-links-with-canadian-partners">http://www.tu4dublin.ie/news/alliance-strengthens-links-with-canadian-partners</a> The centre's key objectives are; to extend Canada-Ireland inter-institutional activities promoting mobility for academic staff and postgraduate scholars, undergraduate students exchange (where appropriate), and maintaining the joint Higher Education in Transformation Conference.	
- Develop a TU position on skills and apprenticeship	None	Target 2016 - Action Plan for Skills and Apprenticeship within TU4Dublin to be developed by end of 2016.         Commentary         A draft position paper developed by End 2016, covering the following key aspects to enable appropriate discussions, leading to strategic decisions on the positioning of the TU4Dublin to support apprentice education:         •       Contextualising of apprentice education within Ireland and review of standards-based apprentice model;	

		<ul> <li>Review of status of apprentice programmes in Ireland with reference to key reports and strategies that have informed policy, and;</li> <li>Identification of strategic issues and considerations for the Technological University.</li> <li>A draft position paper has been published on: <u>The Role of Apprenticeship within TU4Dubin - Strategic Review for the TU4Dublin Steering Group</u></li> </ul>	
<ul> <li>Progress organisation design for academic and services functions of TU4Dublin.</li> </ul>	None	<ul> <li><u>Target 2016</u> - Maintain progress with respect to all aspects of organization design (Governing Body, Academic Council, Senior Leadership Team, Academic Schools and Support Services) to ensure completion in 2017. Governing Body and Academic Council design subject to passage of and final form of TU legislation</li> <li><u>Commentary</u></li> <li>Significant progress has been made in relation to the proposed organisation design for academic and service functions of the TU4Dublin. Specific deliverables include:-         <ul> <li>An organisation design for the academic structure of the University has been developed.</li> <li>Frameworks for the Governing Body and Academic Council of the University have been developed.</li> <li>All functional areas across the partner institutes are now actively working on service delivery and organisation design for the Technological University with a view to phased implementation commencing in September 2018.</li> </ul> </li></ul>	
- Development of TU4Dublin Digital Campus	None	Target 2016 - Completion of project to identify detailed vision. Initial scoping of detailed implementation plan commenced.CommentaryIn July 2016, the Digital Campus & Learning Transformation directorate (DC<) was established in DIT, with objectives to develop and implement the TU4Dublin vision of its Digital Campus (DC). A tender process was undertaken in summer 2016 for support to the development of the Digital Campus vision with IBM Ireland being selected to provide external support. Between October and December 2016 a series of workshops involving staff and students from the 3 TU4Dublin partners was undertaken using IBM's Design Thinking methodology and this underpinned the development of the Digital Campus vision. A detailed implementation plan to underpin the delivery of the vision is in development and will be progressively implemented from September 2017. The status report on the development of the DC has been published.	
- Development of a financial model for TU4Dublin	None	Target 2016 - Complete initial project scoping.         Commentary         The initial project scoping for the development of a financial model for TU4Dublin has been completed. In addition a discussion paper on the financial strategy for the University has been developed. Work has now commenced on detailed financial modelling, using the 2017 Programmes and Budgets documents from the three partner Institutions.	
- Continue work with the multi-party forum to agree key actions to achieve a 'Workplace of the Future'	None	Target 2016 - Subject to lifting of current industrial action by TUI, re-engage a 'Safe Space' process with the engagement of all relevant unions.Commentary A successful national conference on Technological Universities was hosted by the IMPACT trade union and supported by the TU4Dublin alliance. In addition IMPACT continues to contribute to the on-going work of developing a Technological University through one dedicated member of staff seconded to the TU4Dublin Programme.While the TUI are still involved in industrial action across all Institutes of Technology, members of the TU4Dublin alliance continue to work at national level to try to address the issues of concern raised by the TUI. It is envisaged that the "Safe Space" process will be replaced by a National Negotiation Forum for all Technological Universities.	

- Implement a framework for engagement with the collective TU4Dublin student body	None	Commentary         Student Unions from the three members of the TU4Dublin alliance (DIT,ITB, ITT) are well represented in all the project planning and work groups of the TU process. Also, the students out of own initiatives, attended the last USI Congress as one entity.	
Amalgamation of DIT, ITB and ITT within a suitable legal vehicle in preparation for application for Technological University designation		<ul> <li>Target 2016: Substantive progress on this item requires the passage of the TU legislation. Implementation plans and timelines can be identified once the timing of enactment of the TU legislation is known.</li> <li>Commentary         <ul> <li>As a result of significant Government Amendments to the proposed legislation, it is now envisaged that it will no longer be necessary for the TU4Dublin consortium to amalgamate to a suitable legal vehicle prior to application for designation as a Technological University (a previous pre-condition). The consortium is also aware that it is the Government's intent to facilitate the consortium to be in a position to apply for TU status, and if successful, for merger and designation to take place simultaneously.</li> </ul> </li> </ul>	
		• The TU4Dublin alliance has therefore restructured its programme to incorporate all pre-merger activities into a coherent project plan, which is on target for designation in 2018.	
		• Significant development has been achieved in the coordinated development of the three current strategic plans of the members of the TU4Dublin alliance.	

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To progress the necessary detailed planning required to underpin the relocation of DIT to its new campus at Grangegorman	Programmes as set out are completed	(Year 2012/13) Required plans completed	Target - Year 2018/19         Relocation of 10,000 students to Grangegorman as set out in Implementation Programme 2 of the development.         Commentary         On-going legal delays to procurement were finally resolved by a positive judgement in favour of the state in late 2016.         Because to the extent of the delay additional measures and negotiations were undertaken with bidders, but as of April 2017 engagement with the preferred tenderer is fully re-established, and detailed design progressing. However the delay means that the expected date of completion has moved to the 2019/2020 academic year.         Work continues on a number of levels on the related planning around the development of the DIT campus at Grangegorman and on its occupation. As discussed in Section One of this document there are ongoing developments which are important to	
			realising the occupation of the campus over the coming years. DIT has established a number of working groups that are exploring the opportunities that will arise by co-locating with the HSE on campus. To date a joint DIT/HSE working group is exploring the potential to address waiting lists for eye testing in the soon to be opened major Primary Care Centre on site with access to DIT expertise, staff and students in the DIT National Optometry Centre that will be located metres from the HSE facility. The concept of a healthy campus targeting youth and the needs of 20,000 students and 2,000 staff is being investigated. As previously mentioned, the possibility of extending the very successful Students Learning With Communities initiative by DIT to incorporate a link with local small and medium sized businesses is beginning to get traction and it is hoped to be developed and expanded over the coming years. The success of the' ideas' camp for local children is being extended to incorporate a maths learning camp and an arts camp to targeting local children are now being planned. Feedback from student cohorts studying on the DIT campus at Grangegorman indicate above average student satisfaction levels and very positive student feedback. This has translated into improved academic performance and retention. In 2017 the first cohort of students entering DIT and studying on the new campus will be graduating in the autumn.	

Institution objective	Performance indicator	Baseline	Final target, end 2016, commentary and data source	Summary
To complete the structural and process change phases of the Organisation of DIT and (Excellence in Administration) EIA Programmes	Programmes as set out are completed	(Year 2012/13) 80% of elements of programmes completed	Target 2016 - The main elements of the programmes have been completedProgress the Examination Office consolidation, consistent with TU4Dublin plansCommentaryFor the administration and operation of examinations in DIT, a range of items identified under a scoping project have already been completed including:- the review of processes across the DIT offices; review of best practice; implementation of a single electronic system for exam timetabling; standardisation of the use of examination numbers; centralisation of the organisation of graduations; centralised management of human resources; centralised management of budgets; establishment of College Examination Executives to support academic/administration liaison and launching of a single examinations website.Further work will be completed in line with the development of TU4Dublin and subject to the timing of relocation of the different offices to Grangegorman. Detailed planning for this is almost complete, under a Project Definition Report (PDR) within the TU4Dublin implementation programme. It has involved relevant colleagues from across the three partner institutions.	

The 'Access to Apprenticeship' initiative

Further proposals for case studies to follow