



# CONNACHT-ULSTER ALLIANCE

Comhghuaillíocht Chonnacht-Uladh

Expression of Interest  
for  
Re-designation  
as a  
Technological University

Léiriú Spéise in Athainmniú mar Ollscoil Theicneolaíochta

4th March, 2015



lyit





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## 1 Executive Summary

The Institutes of Technology of GMIT, LYIT and IT Sligo, having due regard to their history and achievements, hereby commit to coming together to be re-designated as the Technological University (TU) for the West/North-West of Ireland.

We recognise the leading role the three Institutes have played and continue to play in the social, cultural and economic activities of our regions and believe that in coming together we can bring about a “step change” across these activities in order to realise the full potential of the wider region encompassing almost one fifth of the land mass of the Republic of Ireland.

Our vision is that the TU will be a differentiated organisation, complementary to the existing traditional universities, serving diverse communities of learners and practitioners across a highly dispersed, mostly rural community via its multi-campus. The TU will be a leader in the communities it serves, the key producer of work ready graduates, a key partner and driver of research and innovation, a key attractor of investment to the region and a key partner in the retention of such investment. It will be a driver of change, the key national leader in blended education encompassing traditional methods of delivery coupled with state of the art online and distance learning, a provider of education to more mature learners, a nexus of continuous professional development and the National Centre for Life Long Learning.

Historically, the region had a lower level of higher education qualifications relative to the rest of the country. In recent decades, the three IOTs have had a transformative impact in raising the educational profile of the region. Re-designation as a TU will allow us to further

augment the region’s educational profile and maximise opportunities to attract and retain the best graduates.

Having a long track record of collaboration, the three Institutes appreciate the importance of shared trust among the partners in developing any initiative of this nature. It is also important that the stakeholders of each institution are clear about the benefits accruing to them through this engagement. With a clear focus on these two factors, the alliance has a solid foundation on which to build stronger and closer collaboration.

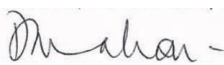
The Institutes are, and will continue to be active participants in the West/North-West Cluster with NUIG, a key objective of which is to ensure rational provision of Higher Education in the region.

While any new entity will face challenges, the important question is: ‘how can this initiative benefit the region and its people?’ The most recent Western Development Commission report December 2014 <sup>[1]</sup>, predicts that while the population of the region will grow, it will have a smaller percentage share of the national population by 2030 and there will be a drop in the working age population. The challenge for the CUA and all its stakeholders is to create a virtuous cycle through higher education provision, graduate employment, industry and community engagement which can reverse these trends and enhance the development of the region.

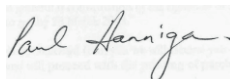
The submission of this Expression of Interest from the Connacht-Ulster Alliance is in compliance with Stage1 of the requirements for Technological University re-designation, as stated in *Process and Criteria for Designation as a Technological University*.



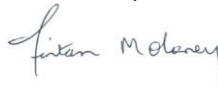
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## 1 Achoimre Fheidhmeach

Leis seo gabhann Institiúid Teicneolaíochta na Gaillimhe-Maigh Eo, Institiúid Teicneolaíochta Leitir Ceanainn agus an Institiúid Teicneolaíochta, Sligeach orthu féin, agus meas cuí acu ar a gcuid staire agus éachtaí, teacht le chéile lena n-athainmiú mar Ollscoil Teicneolaíochta (OT) Iarthar/Iarthuaisceart na hÉireann.

Aithnímid an príomhról a bhí agus atá ag na trí Institiúid i ngníomhaíochtaí sóisialta, cultúrtha agus eacnamaíochta ár gcuid réigiún agus creidimid, ach teacht le chéile, gur féidir linn mórathrú a chur ar bun sna gníomhaíochtaí sin d'fhonn cumas iomlán an réigiúin níos leithne a chomhlíonadh, réigiún a chuimsíonn beagnach an cúigiú cuid de thalamh Phoblacht na hÉireann.

Is é ár bhfís gur eagraíocht dhifreáilte a bheidh san OT, ag comhlánú na n-ollscoileanna traidisiúnta atá ann cheana féin agus ag freastal, trína campais éagsúla, ar phobail ilchineálacha foghlaimeoirí agus cleachtóirí ar fud pobal atá thar a bheith scaipthe agus ar pobal tuaithe é den chuid is mó. Ceanródaí sa phobal ar a bhfreastalaíonn sí a bheidh san OT, beidh sí ar an bpríomhtháirgeoir céimithe atá réidh chun na hoibre, príomh-chomhpháirtí ó thaobh taighde agus nuálaíochta de a bheidh inti agus beidh sí taobh thiar de chuid mhór den dul chun cinn sna réimsí sin, beidh sí ina príomheagraíocht ó thaobh infheistíocht a mhealladh chun an réigiún agus beidh sí ina príomh-chomhpháirtí ó thaobh infheistíocht den sórt sin a choinneáil. Tionscnóir athruithe a bheidh inti, an príomhcheannaire náisiúnta in oideachas cumaiscthe a chuimseoidh modhanna traidisiúnta seachadta chomh maith le foghlaim ar líne agus cianfoghlaim den chéad scoth, soláthraí oideachais d'fhoghlaimeoirí níos aibí, lárionad forbartha gairmiúla leanúnaí agus an Lárionad Náisiúnta d'Fhoghlaim ar feadh an tSaoil.

San am a caitheadh, bhí leibhéal na gcáilíochtaí ardoideachais níos lú sa réigiún seo ná mar a bhí sa chuid eile den tír. Le roinnt deiceanna de bhlianta anuas, bhí tionchar claochlaitheach ag na trí Institiúid Teicneolaíochta i dtaca le hainm an

réigiúin a chur in airde ó thaobh oideachais de. Ach bheith athainmnithe mar OT, cuirfear ar ár gcumas cur a thuilleadh le próifíl oideachais an réigiúin agus cuirfear an méid is mó deiseanna agus is féidir ar fáil chun na céimithe is fearr a mhealladh agus a choinneáil.

Tá na trí Institiúid ag comhoibriú lena chéile le fada an lá agus tuigeann siad an tábhacht a bhaineann le muinín a bheith ag na comhpháirtithe as a chéile agus tionscnamh ar bith den chineál seo á fhorbairt. Tá sé tábhachtach freisin go mbeidh páirtithe leasmhara gach ceann de na hInstitiúidí soiléir maidir leis an tairbhe a bhainfidh siad as an tionscnamh seo. Agus iad ag díriú go soiléir ar an dá chúinse sin, beidh dúshraith dhaingean faoin gcomhghuaillíocht ar a dtógtar comhoibriú níos láidre agus níos dlúithe.

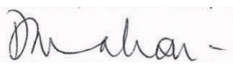
Tá agus beidh na hInstitiúidí ag glacadh páirt i gcnuasach an Iarthair/an Iarthuaiscirt le hOllscoil na hÉireann, Gaillimh. Ceann de phríomhchuspóirí an chnuasaigh seo ná soláthar réasúnach Ardoideachais a chinntiú sa réigiún.

Cé go mbeidh dúshlán roimh aonán nua ar bith, is é an cheist thábhachtach: 'Cén chaoi a rachaidh an tionscnamh seo chun tairbhe an réigiúin agus na ndaoine atá ina gcónaí ann?' S' tuarascáil is déanaí ó Choimisiún Forbartha an Iarthair (Nollaig 2014)<sup>[1]</sup>, déantar tuar, cé go mbeidh fás ar dhaonra an réigiúin, go mbeidh sciar céatadánach níos lú den daonra náisiúnta aige faoin mbliain 2030 agus go mbeidh titim ar líon na ndaoine atá in aois oibre. Is é an dúshlán do Chomhghuaillíocht Chonnacht-Uladh agus dá páirtithe leasmhara ar fad ná fáinne óir a chruthú trí sholáthar ardoideachais, fostaíocht do chéimithe, tionsclaíocht agus rannpháirtíocht an phobail, rudaí a bheidh in ann na treochoí sin a aisiompú agus cur le forbairt an réigiúin.

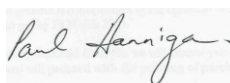
Tá an Léiriú Spéise seo ó Chomhghuaillíocht Chonnacht-Uladh ag cloí le Céim 1 de na riachtanais le haghaidh athainmiú mar Ollscoil Teicneolaíochta, mar atá ráite sna Próisis agus Critéir d'Ainmniú mar Ollscoil Teicneolaíochta.



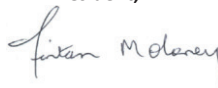
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## 2 Introduction

The evolution of the higher education (HE) sector in Ireland has been pivotal in enabling the country's rapid social and economic development over the past 40 years<sup>[2, 3, 4, 5]</sup>. Underpinning this achievement was the creation of Regional Technical Colleges (RTCs) in the 1970s, their subsequent autonomy in 1993 and re-designation as Institutes of Technology (IoTs) in 1997. Since then, increased academic autonomy has led to dramatic developments in the scale of the IoTs, the profile of the student body, the range and level of programmes, and the extent of engagement with regional enterprises and the community through bespoke programmes, student work placements, RDI activities, and in facilitating greater access to higher education. Continued evolution and development of the sector will be vital for Ireland's future success<sup>[6, 7, 8, 9, 10, 11]</sup>

The National Strategy for Higher Education to 2030<sup>[12]</sup> signals the Government's intention to develop a coherent and sustainable HE system to meet economic and social needs of the country, as part of its broad ambition to create an export-driven knowledge economy<sup>[13]</sup>. The document also offers the possibility for IoTs to achieve re-designation as Technological Universities (TU).

In 2012, the HEA developed a set of criteria for the process of re-designation as a Technological University<sup>[14]</sup>. Also in 2012, GMIT, LYIT and IT Sligo started working together (as the Connacht-Ulster Alliance – CUA), with the ambition of achieving the criteria for re-designation as a TU. The CUA partners have made a substantial contribution to raising the educational profile of the region and to attracting innovative enterprises into the region, and have demonstrated their capability to evolve over the last 40 years to meet regional needs. The CUA is committed to continuous change to meet the future needs of the region. The ambition to become a TU will focus and deepen its regional embeddedness and its level of engagement with enterprises.

### 2.1 CUA Governance

The three Institutes of Technology established the CUA in July 2012, through the signing of a formal MoU (see Appendix 1). This was approved by each Governing Body with the support of each Academic Council. A set of 'Guiding Principles' has been agreed between the three Presidents that provides a framework for engagement (see Appendix 2). More recently, as part of the Mission Based Performance Compact, the three institutions formally stated the common strategic objective<sup>a1</sup> of pursuing a trajectory that achieves re-designation as a Technological University.

Governance and management structures established to date include a **Steering Committee** (Chairman –Martin Cronin, Chairman, InterTradeIreland and past CEO of Forfás, and IDA Director of Operations - , 3 Presidents, 3 Registrars and 3 Senior Executive members) and an **Operational Group** (3 Registrars and 3 Senior Executive members), supported by a **Project Management team**.

### 2.2 Collaborations across the CUA

The steering committee has been meeting monthly since 2012. Operational Plans have been developed to map and achieve the TU criteria and other strategic collaborative objectives. These plans have been reviewed and updated annually. The operational objectives focus on building relationships and establishing a process for working on collaborative projects. Projects substantially completed and implemented across the CUA over the last 2 years are outlined in Table 1.

A meeting with public representatives from the region was held in September 2012, to create awareness and to garner support for a TU. This was strongly endorsed by representatives from across all political parties<sup>b</sup>. Further stakeholder meetings are planned during Stage 2 of the TU application process.

<sup>1</sup> See endnotes on the last 2 pages of the document

Project	Objective
<ul style="list-style-type: none"> <li>• Mapping of programmes and progression across the CUA</li> </ul>	To understand the profile of CUA programmes on offer (now incorporated into the work of the West/North-West Cluster)
<ul style="list-style-type: none"> <li>• Recognition of Prior Learning (RPL) project</li> </ul>	Provision of online tools to make RPL portfolio submissions and assessments easier. In addition, a CUA Level 9 staff training module was developed and accredited. (see: <a href="http://www.myexperience.ie">www.myexperience.ie</a> )
<ul style="list-style-type: none"> <li>• A CUA Institutional Research Repository</li> </ul>	To increase dissemination of CUA research outputs (see <a href="http://cual.openrepository.com/cual">http://cual.openrepository.com/cual</a> )
<ul style="list-style-type: none"> <li>• A system of reciprocal book borrowing for students of the CUA</li> </ul>	To improve access to CUA library facilities for existing students
<ul style="list-style-type: none"> <li>• Students Union Project: 'Fit in Body, Fit in Mind'</li> </ul>	To provide information and support to students and 2 <sup>nd</sup> level pupils on the significant social issue of mental health. This was a promotion by the three Student Unions
<ul style="list-style-type: none"> <li>• Online academic quality assurance</li> </ul>	Implement common online student feedback forms
<ul style="list-style-type: none"> <li>• Scoping of a cross-CUA online exams management system</li> </ul>	To provide a more efficient and secure system of managing exam paper generation, approval and circulation
<ul style="list-style-type: none"> <li>• Joint staff CPD training initiatives</li> </ul>	To share the resources of staff training on an on-going basis
<ul style="list-style-type: none"> <li>• A CUA Data Sharing Protocol</li> </ul>	To ensure good governance of inter-institutional exchange of data
<ul style="list-style-type: none"> <li>• A CUA virtual Careers Fair between the three Careers Offices</li> </ul>	To share Career Services resources and enhance the information available to students about potential employers. see <a href="http://cuacareersfair.prospects.ac.uk/fairs/2014/splash.html">http://cuacareersfair.prospects.ac.uk/fairs/2014/splash.html</a>
<ul style="list-style-type: none"> <li>• Make joint submissions to the National Forum for Teaching and Learning</li> </ul>	To work collaboratively and to enhance the likelihood of success in areas such as the development of a MOOC to improve the transition from 2nd to 3rd level education
<ul style="list-style-type: none"> <li>• Make a joint submission for a Postgraduate Programme in Professional Practice to HEA</li> </ul>	Using blended learning to train employees in business skills such as: working effectively in modern organisations; sustainability in business; products and services; and driving innovation

**Table 1:** CUA Collaborative projects

This document is the formal submission of an Expression of Interest from the Connacht-Ulster Alliance in compliance with Stage 1 of the requirements for Technological University re-designation, as stated in *Process and Criteria for Designation as a Technological University* published by the HEA. This submission document was endorsed by the staff of the three institutions through consultation with Governing Body, Academic Council and Executive Board of each of the institutions.

Section 3 provides an overview profile of the region. Section 4 makes the case for the creation of a technological university in the Connacht-Ulster region that will have a mission to support regional enterprise and community development and to enhance the student experience through collaborative initiatives with regional employers at a scale

and depth that is not possible through individual institutional efforts.

The scale of the institutions and the potential to create an exciting new entity harnessing the combined expertise and strengths of the three institutions can be seen from the *Connacht-Ulster Alliance at a Glance*, in Figure 1. This is discussed in detail in Section 5.

The current status of the three IoTs in the West/North-West region is evaluated against the TU Criteria in Section 6. The more substantive and detailed plan to achieve re-designation as a Technological University will be the subject of a Stage 2 submission.

Within this document, mention of the Technological University (TU) in the West/North-West means a TU for the Connacht-Ulster Region.



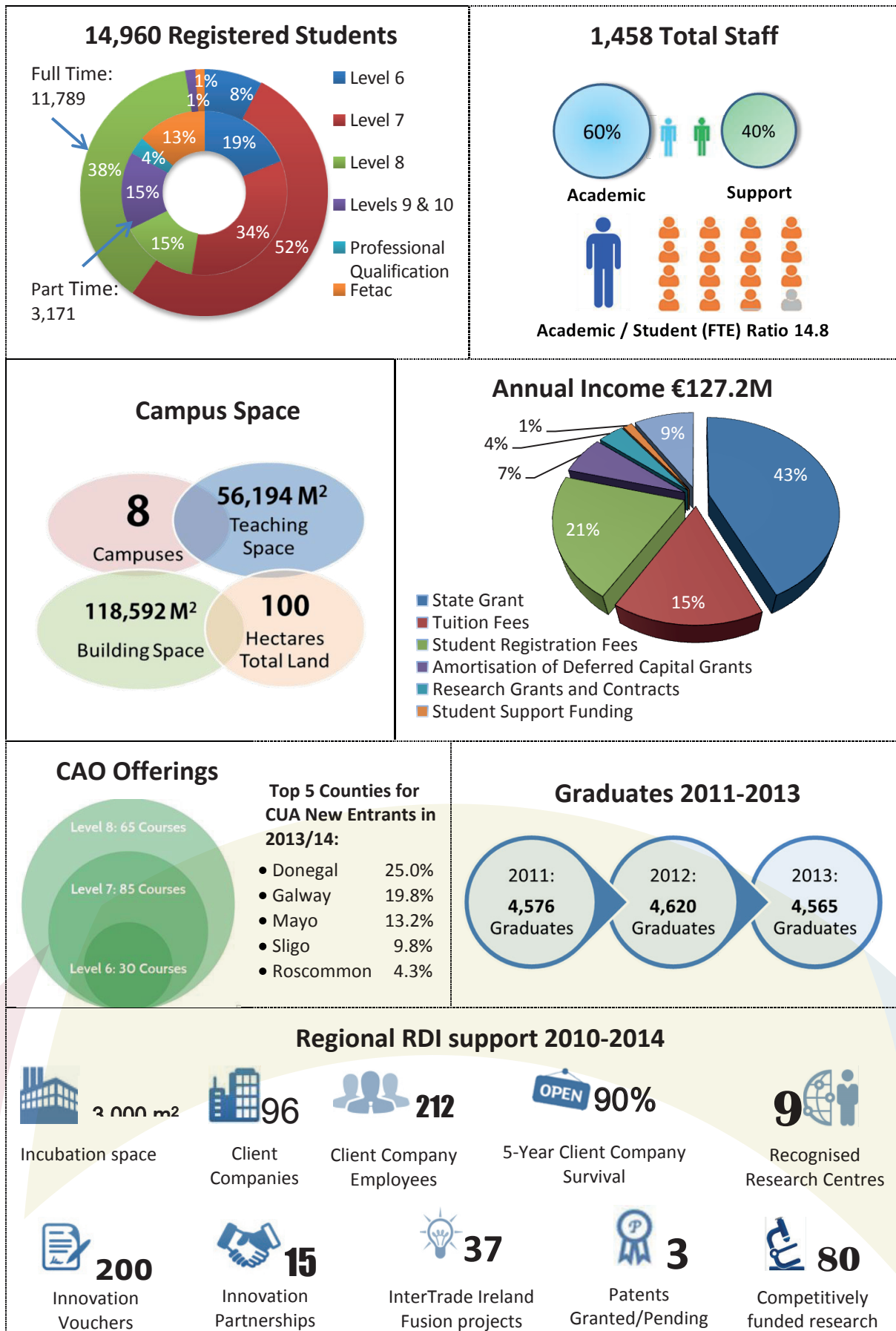


Figure 1: The Connacht-Ulster Alliance at a Glance

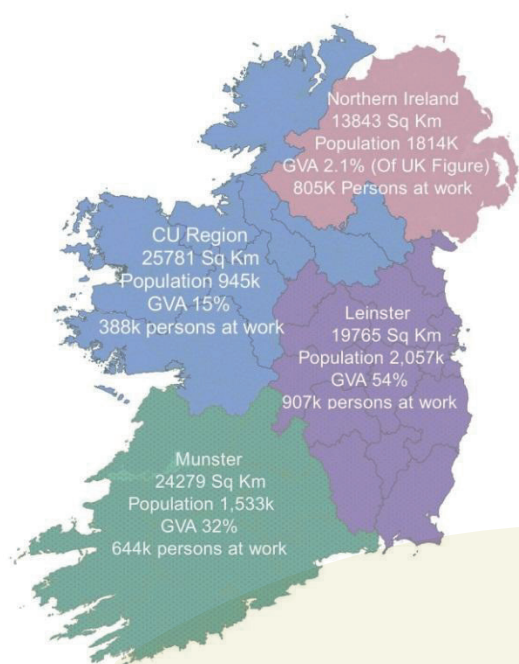


### 3. The Connacht-Ulster Region

#### 3.1 Profile of the Region

The counties of the Connacht-Ulster (CU) region are: Donegal, Monaghan, Cavan, Sligo, Leitrim, Mayo, Roscommon and Galway. It aligns with the Northern and Western Regional Assembly<sup>c</sup>. The region has 37% of the land-mass, 21% of the population, and 20% of the workforce of country and 31%, 21% and 14% respectively for the whole island, Figure 2. It is a rural area with a low population density (25-30/km<sup>2</sup>); Galway city is the largest urban area.

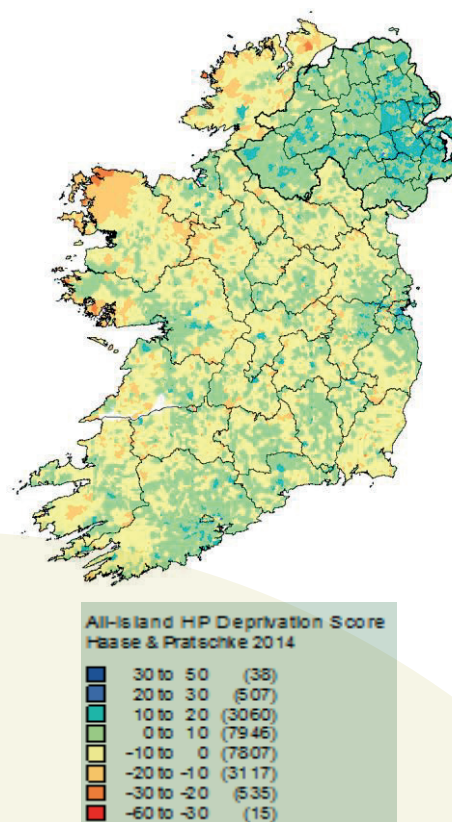
approximately 10% of the regional population. All CU counties have a relatively high percentage working in agriculture and 90% of enterprises employ fewer than 10 people. While the region provides 28% of HE students, only 13% of graduates from the West, and only 4.1% of graduates of all Irish HEIs are employed in the region<sup>[16]</sup>. As a peripheral region with fewer businesses, the transport, energy and telecommunications infrastructure do not compare favourably with more populated regions, providing a weak accessibility proposition for new business start-ups; there is a general outward migration of young people.



**Figure 2:** Demographics and economic profile of the regions of Ireland<sup>d</sup>. Source: CSO 2011: <http://www.cso.ie/en/statistics/>

Compared with other regions, The CU region has a lower Deprivation Index Score<sup>e</sup>, with fewer people in employment or holding higher education qualifications, (Figure 3). A higher proportion of its labour force is engaged in sectors such as Manufacturing, Tourism and Agriculture and a lower proportion in high value business services, ICT and other knowledge intensive services compared to other regions<sup>[15]</sup>.

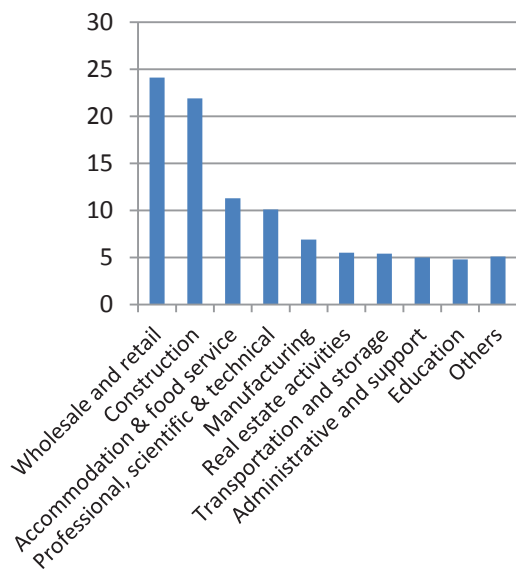
The public sector employs some 25%, and knowledge intensive services (KIS)



**Figure 3:** All Ireland Deprivation Index Score<sup>[17], [18]</sup>

There are 31,668 active businesses in the region of which wholesale, retail, construction, accommodation, food service and professional, scientific and technical sectors account for 67% (Figure 4)<sup>[19, 20, 21, 22]</sup>. Most of the data on the region reported nationally is provided for the BMW region, which includes 5 counties in the province of Leinster. However, the findings for the BMW region are indicative of the performance for the CU region. For example, only 15.3% of all

national companies involved in knowledge intensive services are in the BMW region. There are particular strengths in the following sectors Medical Devices, Processed Chemical and Materials, Computer and Communication Hardware, BioPharmaceuticals, Software and Communication services and Diversified Manufacturing and Processing<sup>[15, 22]</sup>.



**Figure 4:** Regional enterprises as a % of the total number in the CU region, Source: CSO, 2011<sup>[21]</sup>.

The region is characterised by a high level of cultural, artistic and outdoor activities offering excellent quality of life for its inhabitants. Natural resources include, a long coastline, mountains, forests, rivers and an abundance of renewable natural energy resources - including wind, wave, biomass - and natural gas. Three of the country’s seven Gaeltachtaí are located within the region. The importance of tourism in the region is evident by the high share of national income (at 22%) from the accommodation and food sector<sup>[19, 23, 24]</sup>. Hotels and restaurants account for 7% of total regional employment<sup>[23, 24]</sup>. Some 36% of all holiday makers to Ireland in 2013 were visitors to the region, bringing in revenue of over €550M<sup>[23]</sup>. The recent development of the *Wild Atlantic Way* and the *Greenway* is making a positive impact on the volume and duration of the annual tourism trade in the region. There is yet considerable potential to grow the region’s outdoor recreational business<sup>[25]</sup>.

The report ‘Harnessing Our Ocean Wealth’ highlights RDI as being a key enabler in implementing the National Integrated Marine Plan<sup>[26]</sup>. With the proper supports, there are opportunities for SME’s in the region to grow or start new businesses in areas of marine and environmental research<sup>[27]</sup>.

It is estimated that there are 4,779 creative businesses in the region directly employing 11,000 people and have an annual turnover of €534M. These businesses contribute a GVA of €270M in the region. Based on the NACE Index, the creative industries in the West of Ireland host a total of 889 creative organisations in the region<sup>[28]</sup>.

There is an identified need for regional SMEs to develop good business relationships and linkages with KIS supplier. The region demonstrates lower levels of R&D employment and the regional business expenditure on R&D lags behind Europe’s top performing regions. The low level of business innovation is attributed to lack of finance, a perception of poor research quality and relevant expertise, and slow responses from HE institutions. Another perceived barrier is the lack of funding for knowledge transfer and innovation support activities, such as incubation centres, limiting their capacity to sustain delivery of KIS services to business<sup>[15]</sup>.

### 3.2 The Institutes of Technology in the West/North-West Region

#### Overview

Over the last 44 years, the three IoTs of the CUA have made, and continue to make a very substantial contribution to the growth of the regional economy and to improving regional education levels. A summary profile of the three combined IoTs is provided in Figure 1. These IoTs offer an effective, dynamic and applied learning environment; helping students to discover their strengths and potential, developing their lifelong learning skills and preparing them for varied career opportunities. Programmes are designed with a focus on employability of graduates. The ladder system of progression provides a framework for students to enter and leave

the formal learning environment as suits their individual career paths.

### **Student profile**

The range of Leaving Certificate points' of incoming students to the CUA is typically broader than that of the universities. In 2014, 53% of students entering CUA institutions did not come directly from a Leaving Certificate class. New entrants are, in many cases, over 23 years of age (23% in 2013/14), and have experience of the workplace prior to coming to higher education. To meet the needs of this student cohort profile there is an emphasis on small class sizes and a relatively high level of student supports provided by lecturers, IT Services and library facilities, and by learning support staff.

For new entrants to third level in 2013/14, the national average in receipt of a state grant was 44%. In 2013/14, the CUA averaged 62% of students in receipt of grants<sup>f</sup>. Many graduates of IoTs are 1<sup>st</sup> generation third level qualification holders<sup>g</sup>.

### **Regional Engagement and Contribution**

The Institutes play a central role in attracting and retaining Foreign Direct Investment (FDI) and supporting new start-up businesses. The Innovation Centres located at the heart of four of the campuses support regional entrepreneurs, nurture new start-ups and fledgling enterprises and assist established businesses to develop and expand. The three IoTs participated collaboratively in many Enterprise Partnerships and on the EI Technology Transfer Strengthening Initiative 2 and the Ignite West Programme. The Graduate Enterprise Programme and the New Frontiers Programme (with IT Sligo and LYIT jointly) commenced in 2012 and has, so far, brought 28 companies to the market, employing more than 25 people in the region. The HEA funded Lónra initiative<sup>h</sup> has led to increased collaborative research, innovation and enterprise development.

The three IoTs have developed bespoke training specifically at the request of industry. Examples include, flexibly-delivered training of new recruits at Abbott Diagnostics - enabling the company to double their

workforce and capacity, specialist training programmes delivered for Coca Cola, Pramerica, Allstate, Sita, Masonite and Baxter which educated employees across the global business network. The CUA's engagement with training industry extends beyond the region using online and blended teaching methods. Tailored programmes have been developed for clients throughout the country and internationally. Some of these are delivered in collaboration with the National Institute for Biopharmaceutical Research and Training (NIBRT). Online-delivered programmes have also been developed for the medical devices sector and for organisations such as First Polymer and the Irish Prison Service. The CUA partners provided training to 1,495 learners under the Labour Force Activation and Springboard schemes in the period 2011-14.

In 2014/15, the three IoTs have also been engaging with NUIG through the West/North-West regional cluster. A number of specific objectives have been agreed through the Compacts with the HEA, around improving access and progression pathways and in relation to academic planning. It is envisaged that the collaboration between the CUA and NUIG will grow into a more long-term strategic regional alliance of HEIs with the development of a technological university.

In looking at the impact of a HEI on the economy, researchers have analysed how the inputs into the sector impacts on the economy as a whole; this is reported in terms of a multiplier effect<sup>[29]</sup>. The multiplier scores of the income generated by LYIT, GMIT and IT Sligo are 4.25, 4.09, 3.96, respectively<sup>[30]</sup>. Using this analysis, the impact of the combined 2013 income of the CUA, some €127M, was €520M in the region.

#### 4. Rationale for a TU

To sustain themselves economically, regions need to be capable of generating and nurturing innovative people, businesses and organisations on a continuous basis. Innovation and entrepreneurship are identified as the drivers of our national economic ambition<sup>[31, 32]</sup>. These are to be supported by entrepreneurial hubs that provide access to an educational system and by entrepreneurship networks to foster independent thinking, creativity and innovation<sup>[31, 32, 33, 34]</sup>. Universities typically have the resources to provide the stream of knowledge, know-how, and human capital that fuels innovation, entrepreneurship, and regional synergy<sup>[35, 36]</sup>.

There are many studies profiling different types of universities<sup>[37, 36, 38, 39, 5]</sup>. A growing body of literature promotes universities as providers of regional innovation and enterprise supports<sup>i</sup>. The EU policy framework encourages HEIs to increase their responsibility for technology-oriented regional development - particularly in regions with low economic performance - , and to provide the education necessary to grow regional competitiveness and social cohesion<sup>[40, 41, 42, 43, 44, 45, 46]</sup>.

The National Strategy for Higher Education to 2030 offers an opportunity to HEIs to develop a regionally-based TU<sup>( [12], p105)</sup> defined as *'a higher education institution that operates at the highest academic level in an environment that is specifically focussed on technology and its application'*<sup>( [12], p103)</sup>. The TU Bill<sup>[47]</sup> refers specifically to a mission to exploit intellectual property and technology transfer, to support entrepreneurship, enterprise development and innovation, and to develop a skilled workforce, staff and student mobility and service to the community.

Analyses of future trends point to the key role of science and technology to spur innovation, transform industries, create new business models and create entire new sectors<sup>j</sup>. A regional, entrepreneurial TU applies its knowledge, facilities and resources to identify technologies which can be applied

within the region and to develop expertise in their application<sup>[48]</sup>.

Such a TU will be a catalyst for the transformation of the regional economy through its programme design, graduate development, collaborative RDI, technology licencing and spinouts<sup>[32, 33]</sup>.

##### 4.1 The case for a TU in the West/North-West of Ireland

The current concentration of industry on the east coast is not consistent with a long term economic, social and cultural regional balance. There is an opportunity now to create a game-changing framework whereby the region can grow its economic output, its enterprise and its employment levels to become an *advantaged region*<sup>[49]</sup>.

The West-North/West regional enterprises need to become more knowledge-driven with a greater focus on technical innovation<sup>[50, 15]</sup>. Achieving this objective could be underpinned by creating a technological university in the region; a truly regionally focussed, entrepreneurial university with dynamic engagement in partnership with enterprises<sup>[51]</sup> and support agencies, providing leadership and coordination as a catalyst for regional RDI<sup>[52]</sup>.

A second university in the region, focussed on enterprise and innovation, will have a positive impact on the attractiveness of the region as a location for new companies to innovate and grow<sup>[40, 41, 45, 29]</sup>. Companies requiring highly skilled innovative workers typically locate close to a university, particularly one which has active links with industry<sup>k [29, 33, 46]</sup>. This trend is likely to become more pronounced in the future. Student access to higher education is a function of the proximity to a HEI, particularly for those in the lower socio-economic category<sup>[53]l</sup>. A university which offers a comprehensive range of programmes, across a geographically dispersed region, with strong career opportunities through links with regional enterprises will lead to greater employment, and moreover will optimise retention of graduates in the region.



To realise this vision and become a pivotal instrument for transformation of the region, at the fundamental and cross-sectoral level outlined here, the IoTs of the CUA need to evolve into a technological university.

#### 4.2 Scoping the vision and mission for a TU

The TU in the CU region will create new knowledge through research and innovation, will create human capital through teaching, will transfer existing know-how to businesses, government agencies, and other organisations. It will apply knowledge to the creation and commercialisation of new products and processes and improve existing ones, will invest in knowledge-based infrastructure, and will provide leadership in addressing critical social problems. The TU will provide services and supports that address basic and advanced training and education needs, including lifelong learning up-skilling, and business oriented research and innovation.

This TU will bring together the disciplines of humanities, social sciences, and STEM in order to meet the needs of industry, the service sectors, including public services and professional services. Each of these disciplines makes a distinctive contribution to society and the economy in addressing the grand challenges that confront both Ireland and international society<sup>[35]</sup>.

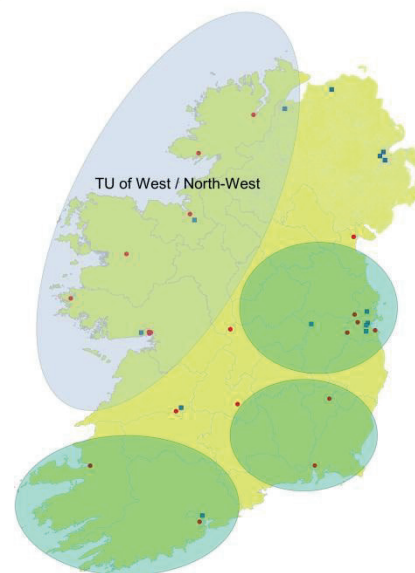
There will be a two-way dynamic relationship between what the TU does and what happens in the regional economy. The TU will play a leadership role in formulating regional economic developmental strategies. The mission and objectives of the TU will be co-dependent with these strategies. The effectiveness of the TU over time will be measured in terms of increased employment within established enterprises, and an increased incidence, and higher rate of survival, of technology-based start-up companies, increased sales, and cost-savings.

The TU will address, head-on, issues of the geographical dispersal of the population by providing comprehensive access routes and delivery across the region. It will address the relatively high regional unemployment and

low HE qualification levels by providing a ladder of progression through the NFQ. New entrants and progressing students will be well supported in their learning both inside and outside the classroom to maximise retention and graduate career success. Graduates of the TU will be ready for careers in complex and challenging environments and will have the entrepreneurial skills and the confidence to engage in new start-up enterprises. Academic entrepreneurship will be encouraged as an integral part of the internal working environment.

The TU in the CU region will draw on many of the successful achievements of the three IoTs, and as a TU will take the opportunity to reconfigure itself and to consolidate and expand its engagement to make an even greater contribution to regional growth than has been achieved so far.

The proposed TU (Figure 5) will achieve regional, national and international standing as an entrepreneurial university. During Stage 2 of the re-designation process, the CUA will engage with, and learn from those more experienced in creating regionally-based, economic development-focussed multi-campus universities. International exemplars are provided in Appendix 3.



**Figure 5:** Future distribution of HEIs across Ireland, as proposed in the TU Expressions of Interest. ● = existing Institute of Technology campus; ■ = existing University campus.

## 5. Proposed Profile of the TU for the West/North-West of Ireland

### 5.1 TU Profile

The regionally-based, enterprise-building, multi-campus TU in the CU region will apply its expertise and knowledge in education, research and innovation to supporting enterprises in growing their businesses and in building the infrastructure, employment, qualifications profile and income generation potential of the region.

The TU will provide undergraduate level 6-8 progression routes as staged pathways for the continuous up-skilling of qualification levels. Apprenticeship and higher certificate qualifications will provide essential skills needed in the region and will enable access, transfer and progression for students to higher level awards. Level 8 programmes will be provided as *ab-initio* full-time and as flexibly delivered part time, facilitating progression routes for learners.

The TU will be a beacon for attracting talented students and entrepreneurs into the region. The additional functions of the TU will include an expansion of Levels 9-10 teaching, an improvement of capacity in both higher level occupational training and in applied research and innovation<sup>m</sup>, increased networking with industry and community organisations, and an expanded portfolio of international activity.

The educational environment and the world of work will interact into and out of the teaching, learning, research and innovation processes. The TU will have a deep understanding of the RDI needs of the region, providing supports for industry, community and societal stakeholders to collaborate directly in designing and conducting RDI. The TU will apply technical and business outputs directly to create sustainable regional economic growth. The TU principle of engagement will be that of interdependence and dynamic interactivity with multiple stakeholders. The quality and depth of this engagement will be a defining characteristic of the TU.

In evolving from the existing IoT sector, the TU will lift capacity and performance and be more effective in regional development than the present IoTs. It will absorb and augment the successful strategies of the existing IoTs, building additional functions as needed and, in the process modernising its practices and structures to meet the needs of stakeholders.

The effectiveness of the services discussed in the following sections will ultimately be dependent on the depth and quality of the engagement by, and the relationships between the TU, employers and enterprises.

### 5.2 Teaching and Learning in the TU

The TU will provide leadership and support for innovative approaches to learning, teaching and assessment. An environment will be created across all campuses to effectively provide learning that is student-centred. Reflective learning practices will be engendered in students so that they become independent, critical and life-long learners. The educational learning outcomes will enable students to develop transferable skills and competencies through wider community and enterprise engagement. TU Programme outcomes will be professionally oriented, designed to prepare students for the workplace and to up-skill those already in employment or those seeking employment. Programmes will be developed in collaboration with employers and representative industry organisations.

TU graduates will be distinguished by their competence in the practical application of knowledge in the workplace, by continuous learning, and by their communication and enterprise development skills. Graduates will be educated as innovators and entrepreneurs, capable of working in complex roles. They will be versatile in meeting the changing professional and technological requirements of business and services in the region.

In collaboration with the West/North-West Cluster (see Section 5.4.1), the CUA is currently reviewing its portfolio of programme offerings to optimise regional provision. In fostering a 'community-of-



learners' model, graduates and regional employers will be consulted to provide a knowledge base for programme planning<sup>[54]</sup>. Many CUA programmes are accredited by professional bodies. Input from these bodies<sup>n</sup> will be sought to develop programmes which meet both the business growth needs of the region and professional accreditation requirements.

The TU will engage with enterprises and the wider community in the region to develop bespoke and labour-market focussed modules and programmes. Short-cycle special purpose and minor programmes will meet specific knowledge needs of regional enterprises. The curricula of most TU programmes will include entrepreneurship<sup>o</sup>. The TU will collaborate with 2<sup>nd</sup> level and further education (FE) schools to plan a holistic programme of entrepreneurial teaching and learning.

Mobility of staff and students (internship and placement) will be promoted to provide experiential learning and to promote knowledge transfer that unlocks the intellectual assets of the TU. Collaborative partnerships with regional and international employers will provide students with opportunities for work-based experiences as part of the learning process and for staff to maintain and develop their competence with current industrial practices.

Involving students in the wider life of the university and in out-of-class experiences is considered essential to achieving a comprehensive 3<sup>rd</sup> level learning experience. The TU will work with community groups in the region to provide opportunities for students to be active and engaged citizens by working on community projects. Building on the TEAM Network, Campus Engage and Gaisce programmes, the TU will foster the formal recognition of student volunteerism.

### 5.2.1 Access, Transfer and Progression

The TU will address the social gap in participation that still remains in Irish higher education<sup>p</sup>. The TU will actively reach out to those who may not be considering HE due to perceived social or economic constraints. It

will provide basic and up-skilling programmes delivered in achievable learning modules<sup>[55]</sup> to facilitate access by students/families new to higher education. Furthermore, in response to the financial challenges experienced by some students<sup>[55]</sup>, the TU will make available student financial support mechanisms.

In partnership with regional Educational Training Boards, FE providers and 2<sup>nd</sup> level schools, the TU will provide clear access and progression pathways in order to increase enrolments from the FE sector<sup>q</sup>.

In the new TU, the lifelong learning portfolio will deliver continued up-skilling of the workforce in the context of regional employment demographics and business development needs<sup>r</sup>.

The CUA is particularly well experienced in open and distance learning (ODL)/blended and online delivery facilitates, teaching and bespoke training when and where it is required<sup>s</sup><sup>[56]</sup>. In many cases, learners could not up-skill without this level of flexible provision. The capability of the TU to deliver lifelong learning (LLL) across all levels will be particularly relevant. The TU will build on its experience to meet the needs of enterprises and communities in a region where the population is widely dispersed. This will be facilitated through access to the multiple campuses of the TU which will provide dispersed teaching facilities and learning supports.

The TU will strive to improve graduate retention within the region by providing a suite of graduate supports during the transition to the workplace.

### 5.2.2 Supports for up-skilling and widening participation

In recognition of the student profile in the region, the TU will provide appropriate supports for non-traditional entrants, such as mature learners and those with vocational rather than traditional academic qualifications, and for remote learners across the geographically dispersed region.

Evidence points to the value of identifying 'at risk' students early in the learning cycle<sup>[55]</sup>.

Pre-entry unpreparedness and inadequate learning supports on entry have been identified as reasons for students dropping out of HE. The TU will address the challenge of transition into 3<sup>rd</sup> level experienced by students. The TU will identify students struggling to meet the course requirements, and provide additional supports, particularly in the early years of courses.

LLL students vary in age, educational background, family circumstances and employment status. A wide range of supports are needed to facilitate their participation. The TU will have systems that facilitate access and exit at various levels, including recognition of prior learning. Flexible modes of delivery, part-time and distance education, along with flexible ways of combining work and study will be provided.

The TU will build on the existing range of supports for particular learning deficiencies, and provide resources to support students experiencing difficulties with, for example, mathematics and literacy. The TU will have a policy of ensuring access to HE by all those who meet its entry standards; access and disability services will ensure students are not restricted from entry due to disability and that they are supported during their learning as necessary.

TU learning spaces will be technology enabled and will include -state-of-the-art laboratories and equipment, and technical supports. Computer-based learning facilities will be provided with cross-campus and external access.

### **5.3 Research, Development and Innovation in the TU**

Research and innovation within the TU will connect the three core strands of (a) teaching and learning, (b) collaborative research and (c) innovation and engagement<sup>[57]</sup>. As noted in Sections 3 and 4, the research, development and innovation needs of the region are distinct from others, requiring innovative engagement models and enabling activities in a range of economic, social and cultural areas. Building on established discipline expertise, and focusing on

interdisciplinary regional challenges, the CUA colleges are already collaborating to engage with industry and society in a number of 'reach out' RDI initiatives, such as MetricIreland<sup>†</sup> (Medical Devices), NIBRT<sup>u</sup> (Bioprocessing), the North West Health Innovation Corridor (Health Care and Social Care), CREST<sup>v</sup> (Environment) and WISAR (wireless sensor technology applied across various products and processes) - an EI funded Technology Gateway. Through these mechanisms, companies and societal groups are invited and encouraged to be directly involved in designing and conducting research, development and innovation at all levels. These initiatives have been proven to be highly successful in creating platforms and networks which add significant value to companies and societal groups, while also unlocking latent potential that could not otherwise be capitalised on because of the dispersed nature of the region's population and due to its economic profile. The TU will bring a high level of focus on the identification of economic and social RDI needs in the region, and will be a more effective driver of creativity and innovation into the future. The critical mass of expert and experienced staff, along with capital and equipment infrastructure will allow the TU to compete more effectively for global funding and to address EU and national objectives of Excellent Science, Industrial Leadership and meeting societal challenges.

In addition to the 'reach out' activities of the TU, the IoTs of the CUA have significant onsite campus incubation facilities and activities. In 2013 the combined colleges had some 100 such companies, with over 210 employees, 90% of whom are in operation five years after start-up. The role of the TU in acting as a key enabler at this critical juncture of economic and societal development will be enhanced significantly by extending the reach of the CUA institutions to the full region, and will foster a culture of enterprise and entrepreneurship throughout.

To enable the CUA to meet the TU criteria, and to establish the optimal TU for the region, the CUA institutions have, amongst other initiatives: initiated a programme of

staff development which focuses on research expertise and qualifications; established a number of Strategic Research Centres which will focus research activities in core areas; designed a joint Graduate Research Education programme; agreed to establish a joint RDI strategy; designed a Post-Graduate Programme in Professional Practice with regional industry partners; participated in a joint Technology Transfer Office. The TU will collaborate with other HEIs, employers and societal groups to maximise its contribution to regional economic, social and cultural development. The TU will identify domains for specialisation that will drive regional advancement<sup>[40, 43]</sup>. The TU will act as a conduit for knowledge and technology transfer and for the adaptation of research and innovation activities for initiating and scaling up regional enterprises and for increasing competitiveness<sup>[58]</sup>. TU central research supports will provide staff with the opportunity to improve and deepen the impact of their regional collaboration.

In HEIs, there is a tendency for teaching and research to prevail over industry linkages, and there are few incentives for staff to engage and limited processes to facilitate engagement<sup>[15]</sup>. Research reward structures are typically based on scientific publications in refereed journals. In the new TU, there will be more evident recognition of research and innovation outputs such as inventions, patents, licenses, and for the provision of technical assistance and technology transfer.

## 5.4 Leadership in Regional Collaboration and Engagement

### 5.4.1 The West/North-West Cluster

Building on the good working relationships across the CU Alliance and with NUIG<sup>[59]</sup>, through participation in the West/North-West regional cluster, the proposed TU will be a valuable contributor in a network of regional HE providers. This regional leadership partnership of HEIs will encompass knowledge creation, technological innovation, know-how transfer, human capital creation and will lead to a convergence provision of a knowledge infrastructure platform that supports the

development and innovation capacity of enterprises and business.

As the existing university in the region, the considerable experience of NUIG in research and in international collaboration is acknowledged by the CUA. The enterprise and entrepreneurial focus of the new TU will complement that of the more traditional university. One of the strategic goals of NUIG is to work in partnership with other 3<sup>rd</sup> level institutions in the region to provide leadership<sup>([60], p42)</sup> in developing an expanded regional innovation strategy. Together, through parallel and complementary collaboration, the new TU and NUIG can make a fundamental and lasting contribution towards the growth of the region and provide a comprehensive and effective range of teaching, research, innovation and enterprise development supports.

### 5.4.2 Enterprise and Innovation

The TU will be an innovation hotspot, providing a one-stop-shop suite of services. The research, development and innovation ecosystem provided by the TU will support entrepreneurial spin outs, start-ups and business development. It will include student and graduate-led projects and commercialisation of research and innovation<sup>[33]</sup>. The TU will develop a regional network of volunteer mentors/coaches from the private sector and alumni of enterprise development programmes to provide support to new start-up companies<sup>[31, 32]</sup>. The ultimate objective is that new and existing regional enterprises become sustainable and that they grow, employ graduates of the TU while attracting inward investment.

The TU will work closely with Enterprise Ireland to address the national imbalance in the provision of RDI supports to regional SMEs<sup>[15]</sup>. There will be a particular focus on supporting SMEs to overcome difficulties in availing of RDI supports due to personnel and time constraints<sup>w[61, 58]</sup>. The TU could potentially create a small business support unit, building on the work of the four existing innovation centres. This unit will provide a suite of interactive tools to support small businesses to access and absorb knowledge and to participate in RDI collaborations

where there is no in-house SME R&D. Academic staff and students of the TU will be involved in the design and development of these support tools.

The concept of the 'incubation laboratory' will be incorporated into a regional cluster of business parks/knowledge transfer centres<sup>[40, 62]</sup>, providing full scale prototyping and innovation supports in relevant technologies to start-ups and developing enterprises. The research and innovation centres of the TU will have a focus on specific technologies, in consultation with employer and regional agency stakeholder groups.

A region's knowledge-based infrastructure consists of the set of institutions and organisations and their synergies that support and increase the region's capacity for knowledge creation and dissemination, technological innovation, and entrepreneurship. The TU will work with regional agencies<sup>x</sup> to establish a national Knowledge Transfer reference centre for entrepreneurs. The TU will participate in the EI review of the impact of the Campus Incubation Programme<sup>[33]</sup>. The TU will engage with Údarás na Gaeltachta and will collaborate with NUIG to ensure participation in the proposed new Coastal Marine Innovation Hub<sup>[26, 27]</sup>. The TU will work with regional agencies to enhance the skills and competencies of their staff working in the field of regional enterprise development.

#### 5.4.3 Cross Border Engagement

The Connacht-Ulster region has an extensive border with Northern Ireland. Parts of Northern Ireland form a natural hinterland to the region. Experience gained in cross-border collaborations will be used to create stronger, economic, cross-border relationships<sup>[63]</sup>.

The TU will forge sustainable cross-border links through strengthening existing relationships and collaborations. It will expand the regional engagement of the CU region, comprising 8 counties of the Irish Republic, to include at least the 3 northern counties of Derry, Fermanagh and Tyrone.

LYIT has a strong track record of cross-border engagement. Most recently, the North West

Regional Science Park has been established as part of the North West Technology Business Zone partnership with UU (at Magee and Coleraine) and the North West Regional College in Derry and Strabane. This st£12M Interreg IV funded project will provide an additional 8,000 m<sup>2</sup> at 2 cross-border locations. The TU will look to developing this as the nucleus of a national science park.

The CU partners have substantial experience of joint cross-border programme provision, including an MSc in Innovation Management in the Public Service between LYIT and UU and the provision of training in the Carpentry and Joinery and Plumbing trades to southern Irish apprentices in Fermanagh College (now North-West College) through IT Sligo. The TU will work closely with the two universities in Ulster and with the Northern Ireland Further Education Colleges to widen access and progression pathways and introduce new collaborative provision of HE programmes. The TU will also build on the working relationships established through the success of the CUA institutions in cross-border funding<sup>y</sup>, with the objective of increasing collaborative RDI projects. In this regard, involvement with NUIG in the W/NW Cluster will enhance the expertise of the CUA and broaden possible funding opportunities.

The TU will continue to participate in cross-border organisations such as the North-West Health Innovation Corridor, North-West Partnership, North-West Workforce Development Forum, North-West Regional Science Park Steering Group, and Derry City Urban Regeneration Company. (ILEX).

#### 5.4.4 Community Engagement

The success of the proposed TU will be measured by its capacity to meet local needs. The proposed TU will build on the relationships with regional communities, enterprises, industries and employers.

Across the CUA, community and industry representatives are routinely involved in the development, delivery and evaluation of programmes. The Institutes are engaged in the provision of training for 2<sup>nd</sup> level maths teachers through the Maths4Teachers



initiative (coordinated by UL). The annual Science Week at each of the Institutes attracts thousands of regional inhabitants to the campuses each year to participate in a wide array of events. The campus amenities of the institutions are frequently made available to local community activities and for promoting participation at 3<sup>rd</sup> level education (e.g. Engineering Dojo, Transition Year learning weeks, 2<sup>nd</sup> level regional Science exhibitions). These initiatives will be maintained by the TU and, by harnessing the critical mass of resources of the combined CU colleges, they will be developed and enhanced to better meet community needs.

The proposed TU will become a focal point for its surrounding communities and will contribute to the formulation of public policy. Staff and students of the TU will be encouraged to work with community groups and 2<sup>nd</sup> level schools to support the transition to 3<sup>rd</sup> level. Capitalising on our existing strengths, the academic curriculum will incorporate community-based projects which will enrich learning and strengthen local communities. The proposed TU will be a catalyst for economic renewal, sustainability and social development through its contribution to national policy development and its regional community-based research and innovation projects.

### **5.5 Staff Deployment and Development**

Staff of the TU will be experienced and trained in the enterprise and entrepreneurial education related to their discipline. Academic entrepreneurship will be encouraged and staff will be expected to actively participate on regional boards and committees.

The TU will provide training programmes that ensure staff are fully supported to maintain their competencies both as facilitators of learning and as researchers of a regionally engaged university. There will be a process of transition from the vocationally-based teaching to professional teaching, incorporating formal training of academic and support staff in best practice pedagogy, including blended learning where necessary. The training plan will lift capacity in

developmental areas for the TU, such as Level 9-10 teaching and research activities and will lead to increased entrepreneurial engagement with regional enterprises. Training will build engagement on cross-campus projects and initiatives. This orientation and training will be equally applicable for academic, management, administrative and services staff and will lead to the application of modern management practices and systems.

Each IoT of the CUA has a staff training plan to meet the TU staff qualifications criteria. Level 10 research is being increased to meet the TU criteria. This requires innovative approaches to facilitate staff to undertake their studies, and to allow them to engage in research funding applications, student supervision and dissemination of Levels 9 and 10 research. Collaborations with other HEIs, research organisations, regional employers and community groups are being pursued to attract inward research investment.

TU structures and policies will be aligned to ensure staff can contribute across teaching & research, administration and community engagement. Allocation models for academic and non-academic staff will be agreed with employee representatives to ensure a balance of workloads and service provision across the many campuses.

TU staff will be encouraged and supported to continue their professional practice and association with professional bodies. This will include the promotion of international sabbatical leave as a means of engaging with world research and teaching centres, and secondments to the private sector to ensure professional and work-based knowledge and competencies are maintained and updated.

### **5.6 International Students and Collaboration**

The national share of international undergraduate entrants was around 8% in 2010/11. This is projected to rise to 14% by 2030<sup>[55]</sup>. TU strategy will be to grow international student numbers by creating long-term international collaborative relationships. International joint awarding arrangements will be entered into (including

curriculum development and delivery). The practical orientation of TU programmes across all levels will be particularly attractive to international students. An international dimension will be embedded in all (partner) programmes. International student work experience opportunities will be developed.

The TU will have a portfolio of international collaborating HEIs which will include bilateral Erasmus+ exchanges and research and institutional developmental initiatives. Existing partnerships with non-EU countries will be developed to increase intakes of fee-paying international students. In addition to the valuable cultural diversity, providing an international dimension for all students, this will bring in a stream of non-exchequer funding to support the internal and regional development work of the TU.

Linkages with international research centres will be facilitated and supported. Staff exchanges will be fostered through international mobility partnerships so as to build a body of learning on international best-practice pedagogy, research and innovation.

The TU will provide a professional international service which is compliant with the Code of Practice for International Students and which attains the International Educational Mark. Strategies and supports will be put in place to ensure that all TU campuses are meeting the educational and diverse cultural needs of international students. The three existing international offices of the CUA will be brought under a single coordinated international plan.

The TU will continue to collaborate with regionally engaged, enterprise development-focussed multi-campus universities across the EU and further afield to learn from their experiences, as it develops the best model for the West/North-West of Ireland.

### 5.7 Planning & Governance

TU governance will follow national and international best practice<sup>[64]</sup>. Stakeholder representation on the Governing Body will be chosen for their involvement and commitment to regional development and

will include state agencies, student and employer representatives. The Academic Council, by agreement with the Governing Body, will have the authority, processes and competence to oversee academic planning and to ensure the quality of programmes of study and the quality and integrity of other academic matters. There will be a common TU academic quality assurance framework and common policies and procedures, building on the work of the Technological Universities Quality Framework (TUQF)<sup>[57]</sup> (and, for example, the policy on RPL already developed by the CUA). Academic structures will provide coherence and consistency of practices across multiple campuses and discipline areas.

The key to the success of the TU will be the quality of its executive leadership. Management training will be provided to support the transition from IoTs to a TU and beyond. This will include topics on strategy making and planning, project coordination, financial efficiency, and entrepreneurship in relation to achieving the vision of the TU.

There will be a single organisational structure for academic and administrative decision-making, performance management and accountability across the TU. This will require common practices and policies for human resource management, financial, IT, estates and other support services. Training will be provided for senior management and administration which will encompass full delegation of responsibility and accountability across all campuses of the TU. Academic and management information systems will be aligned and enhanced to provide relevant management information and to ensure common academic and administrative systems are implemented.

Regular communications with staff and students along with meetings with senior staff will ensure a clear understanding of, and commitment to CUA objectives. This will develop and sustain momentum towards TU objectives during the challenging change process. Similarly, communication and consultation will also be essential with external stakeholders.



## 6 Towards a Technological University for the West/North-West

The CUA is following a work-plan to manage its trajectory towards achieving TU re-designation. In the first instance, this involved collaborating on a number of projects to develop trust and build relationships across the alliance. Work is currently underway to establish baseline data and to identify the gap between where the CUA is now and where it needs to get to – not only for the specific targets of the TU criteria and improving collaboration, but also in terms of wider consultation and communication with students, staff and external stakeholders.

### 6.1 Achievements against the TU Criteria

Data has been collated from across the 3 IoTs to establish baseline statistics. Where possible, the data is based on published information sources such as official returns made to HEA and other state agencies, and records in institutional databases.

An analysis of the combined CUA profile was carried out, incorporating the HEA profiles (for 2012/13), the institutional data as of 2014, and the projected profiles provided in the agreed Performance Compacts. Details are provided in Appendices 4 and 5.

A detailed review of the current achievement against the criteria, the current and projected profiles and planning for optimised closure of

strategic and operational gaps is underway and will form a major part of the Stage 2 submission. Table 2 provides a summary of some of the metrics. The following sections are a summary review of all the criteria and indicate the achievement to date. Refer to Appendix 6 for definitions of the criteria.

### 6.2 Institute and Student Profile

In relation to criterion 2.1 (Appendix 6), as the CUA progresses towards a TU there will be a plan to create a single geographically distributed and multi-campus TU, building on the experience of the CUA partners and on learning from international experiences.

In the period 2010/11 to 2014/15 the CUA experienced an average growth of 1.5% per annum in total undergraduate numbers and this trend is likely to continue over the coming years<sup>2</sup>. The TU criteria 2.1 and 3.1 for programmes refers to the maintenance of provision across NFQ Levels 6 to 10. Figure 6 shows that in 2011/12 the CUA institutions were leading the sector in the provision of Level 6 and 7 programmes and the TU will maintain this trend to deliver its mission to educate and up-skill the regional workforce. Programmes are, and will continue to be, focussed on science and technology.

The first student-related metric in the TU criteria relates to Level 9 & 10 research numbers (criterion 3.2a). As of the March 2014 HEA returns, the CUA has proportionally

Reference	Criterion	2013/14 (HEA Returns)	TU Target
3.2a	Level 9 & 10 research (% FTE L8-10)	2.4%	4.0%
3.2b	Flexible Learners (LLL)	19.1%	30.0%
3.2b	Mature New Entrants	21.3%	
3.2b	Combined Flexible & Mature learners	<b>30.3%</b>	
4.2a	FT Staff delivering HE with at least L9 qualifications*	86.9%	90.0%
4.2b	FT Staff delivering HE with L10 or equivalence in professional experience (estimated)*	31.3%	45% (incl. 10% Prof)
4.2c	Staff supervising @ L10 with L10 qualifications	92%	80%

**Table 2:** Current and projected targets against the TU criteria, as defined in Appendix 6. \*This is a realistic estimate based on available data. Clarification on professional qualifications and on staff delivering HE will be provided in future analysis following agreement with HEA on the definition of professional qualifications.

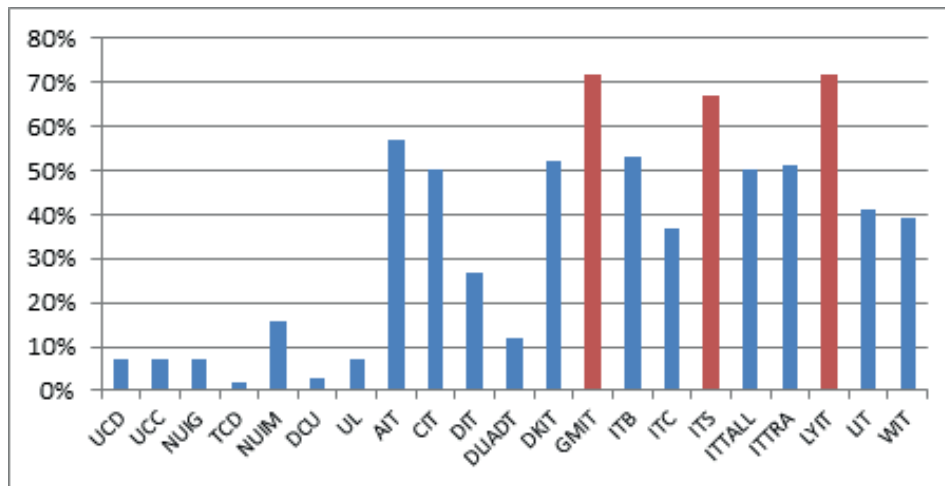


Figure 6: All Level 6 & 7 Enrolments in 2011/12. Source: HEA Institute Profiles 2011/12.

2.36% of FTEs at L8-10 engaged in Level 9 & 10 research. The CUA is working collaboratively to achieve the target, making joint submissions for competitive research funding and providing financial incentives for designated research centres and projects. Particular attention will be required in the planning phase in order to map the achievement of this criterion.

It is noteworthy that TU criteria metrics are based on traditional research models – such as number of postgraduate student enrolments, staff with PhDs etc. While there is some recognition for staff with professional qualifications, these metrics do not fully acknowledge the level of professional practice expertise required to deliver the applied research and innovation needed from a regionally-based, entrepreneurial TU.

The second student-related metric relates to ‘lifelong learning and/or mature students’ (criterion 3.2b). The target is set at 30%, although the definition is somewhat loosely defined in the criterion. For the purposes of this document, LLL will comprise only those designated in the HEA returns as (part time + distance learning + eLearning). Matures (over 23 years old on the date of first entry to HE) will also be recorded, but under a separate heading. As of March 2014, the CUA has 19.1% LLL and 21.3% Matures. An aggregate of these comes to 30.3%, which exceeds the TU target definition. A unique differentiator of the CUA is that the student profile includes a

high proportion of LLL students, many of whom are up-skilling. This provides evidence of strong engagement with regional companies as many of these LLL students are in employment. This is due to the particular strength in the provision of ODL and blended learning and due to the flexible approach taken to meet the needs of employees and employers in terms of timing and location of delivery. It also allows learning to take place across a geographically dispersed region. This will be further exploited by the proposed TU.

Regarding vocational education (criterion 3.3), the CUA is currently delivering apprentice training at Phase 4 & 6 in four trades, traineeships in professional cookery and a number of foundation programmes. As mentioned in Section 5, the TU will continue to provide such vocational programmes and annual discussions are held with the HEA regarding future provision requirements. The TU will lead and promote new apprenticeship models across the region, following from the recent call for new Apprentice programmes.

### 6.3 Staff Profile

There are well established staff appointment processes (criterion 4) that include evaluation of professional practice and engagement. In progressing towards TU status, policies such as these, and other corporate policies in finance, student services etc., will be amalgamated into a single set of overarching operating policies. As mentioned in Section

5.5, allocation models will be agreed and established to provide a balance between teaching, research and engagement activities for all staff (criteria 4.1b).

Ninety per cent of full time academic staff engaged in delivering HE programmes are required to hold a Level 9 qualification or higher for TU Status (criterion 4.2a). The CUA is in the process of verifying the data, but current indications are that this target is close to being achieved (87%, Table 2).

In the TU, at least 45% of full time HE academic staff are required to hold a Level 10 qualification or the equivalence in professional experience, combined with a terminal degree appropriate to their profession (criterion 4.2b). As of March 2014, this is estimated to be at 31.3% (Table 2), although the final figures on academic and professional qualifications have yet to be confirmed. The CUA notes the HEA intention to consider the definition of 'professional equivalence to PhD level' and await the requirements for applicant institutions. Meanwhile, CUA partners are each supporting staff pursuing PhD studies and are actively exploring opportunities for professional PhD staff training with NUIG. They are also reviewing recruitment policies in respect of base-line qualifications for academic staff which will deliver the TU mission and which provides a balance of staff who are research-active and enterprise engaged (criteria 4.1b).

The proportion of staff holding Level 10 qualifications where there is on-going doctoral level training and research is to be in excess of 80% in the new TU (criterion 4.2c). The interpretation of 'doctoral level training' is unclear as it may be referring to supervising students, and/or Principal Investigators and/or post-doctoral and contract researcher. On the basis that the definition is referring to supervisors of Levels 9 and 10 research only, the data shows that this metric is being exceeded by the CUA (Table 2) and is unlikely to reduce significantly.

Criteria 4.2c refers to the importance of staff with PhDs being activity engaged in sustained Level 10 research activity. To achieve this, the TU will provide adequate non-academic

technical and administrative staff resources to support the intended growth in research and innovation activity, underpinned by training of these staff in research methodologies.

#### **6.4 Teaching and Learning & Curriculum Development**

Currently, all programmes are validated by an external panel of academic, employer, professional, and occupational representatives. The latter are selected for their knowledge of the employee profile of the sector (criteria 5.1a). Programmes are validated against the NFQ learning outcome standards in each discipline area. Employability is addressed through market analysis as evaluated by external discipline experts, and learner citizenship through learning outcomes of the wider understanding of the graduate role in society (criteria 5.1b). All programmes are designed to be relevant to the workplace and learning is gained through case studies, problem based learning, work-based projects provided by employers and through work placements (criteria 5.1c). The relevance of work placement in achieving the learning outcomes is determined by the validation panel and Academic Council. Research methods are taught on most Level 8 programmes and, typically, there is a final year project to be completed (criteria 5.1d).

#### **6.5 Research and Innovation**

A review of current Level 9 and 10 student projects and contract research programmes indicates that the CUA is meeting criterion 6.1a; its research is focused on applied, problem-oriented research and social and technological development and innovation, with direct social and economic impacts and public and private benefits in the region. The CUA partners, individually and collectively, have a long and successful track record in designing and delivering RDI activities that are focused on regional needs and have made a significant contribution to building regional economic and social sustainability.

Support (criterion 6.1b) is provided to research staff and the CUA partners are collaborating to increase the level of provision. Recently, a number of Research

Centres have been established in each of the Institutes, with a support package provided. Staff are allocated time to conduct their research. Successes with national and EU level funding have stimulated CUA partner collaboration and leadership of several projects in recent and current rounds of H2020 applications. Obviously, winning such research funding is highly competitive and the CUA will continue developing a strong support platform to afford staff the best chance of success in winning such funding and to sustain and grow their research over time.

The three IoTs of the CUA have all participated in the validation of post graduate training modules to provide generic research skills and competencies for students. The jointly validated programme of Graduate Education in Research Skills provides a foundation for structured Masters and PhD programmes that will ensure the relevance of graduate skills in the workplace. Current partnership in international jointly awarded MSc (EMBC+) and PhD programmes (Erasmus Mundus MARES joint doctorate) has involved the CUA in the transferable, specialist and entrepreneurial skills training programmes that characterise practice-led, professional, and industrial doctorate structures (criterion 6.1c). CUA partners are continuing in this direction through their coordination and partnership in international consortium applications to the Marie Skłodowska-Curie Actions, Innovative Training Network programmes (e.g. co-ordination of a 2015 European Joint Doctoral programme application, and partnership in a 2015 European Training Network programme application). Across the CUA, competitive

funding has been won by researchers from, among others, FP7, European Commission tenders, INTERREG, United Nations FAO, MSCA-ITN European Training Network, SFI, BIM, EPA, HEA, Enterprise Ireland, IOTI, Tesla Project, Marine Institute, Irish Research Council, FIRM, HSE (Healthcare).

In the period 2010-2014, the CUA partners have collaborated with industry on over 200 Innovation Vouchers, 15 Innovation Partnerships, 4 Commercialisation projects and 37 InterTrade Ireland Fusion projects. The current activity in these areas will be maintained as it delivers the intended enterprise-focussed mission of the new TU.

Currently, there are eight recognised centres/research groups being supported by the CUA (see Table 3). These Centres will be reviewed in order to consolidate the alliances' research strengths, differentiation and specialisation, and to identify a limited set of strategic research fields that are driven by, and congruent with the needs of enterprise and communities (criterion 6.2a). The partners have participated in the design of regional networks that use available expertise to meet those needs, including Metric Ireland and the North West Regional Health Innovation Corridor. The TU will strengthen these networks and provide a solid foundation for others, as future needs are identified.

At Stage 2 of the TU re-designation process, the demand for research in various technical disciplines will be identified, with a view to uniting centres operating in complementary disciplines to ensure sufficient capacity for sustained activity in competitive research environments (criterion 6.2b).

Centre	IoT	ISCED2 field <sup>1</sup>
Marine and Freshwater Research Centre (MFRC)	GMIT	85
Medical Device Technology (GMedTech)	GMIT	72
Centre for the Integration of Sustainable Energy (CiSET)	GMIT	52
Centre for Applied Marine Biotechnology (CIMBio)	LYIT	85
Wireless Sensor Research group (WiSAR)	LYIT	52
Renewable Energy Research Centre	LYIT	52
Centre for Environmental Research Innovation and Sustainability (CERIS)	IT Sligo	85
Precision Engineering and Manufacturing Centre (PEM)	IT Sligo	54
Centre for Research in the Social Professions (CRISP)	IT Sligo	31

**Table 3:** Current recognised research centres across the CUA. Note 1: For 2-digit ISCED2, narrow field, code<sup>aa</sup>



## 6.6 International Profile

There are no specific metrics for the international profile of a TU (criteria 7). Certainly, as outlined in Section 5 above, international engagement of the TU in the West/North-West region will specifically reflect a regional and entrepreneurial focus. In the five year period from 2010/11 to 2014/15, CUA international students (based on HEA returns) have grown from 204 to 776 – which represent an average annual growth of 56%. During Stage 2 of the TU re-designation process, the CUA will establish new MoU agreements for the enhancement of internationalisation, as outlined in Section 5.6, including examples related to teaching and learning, research and staff development and collaborations such as joint projects, student and staff exchanges and the collaborative provision of HE programmes.

## 6.7 Leadership, Management & Governance

### *Leadership*

The profile of the three Institutes provided in Section 2 presents a CUA with an external orientation and programmes with a focus on enterprise engagement (criterion 8a).

The members of the CUA Steering Committee bring together strong academic credentials and experience in enterprise and the professions relevant in the region (criterion 8c). In driving the current workplan, the steering committee is providing a high level of committed leadership and good management underpinned by sound governance<sup>[64]</sup>.

Members of the team have already demonstrated their capability of delivering coherence to multiple units and cross-institutional consolidation (criterion 8b).

### *Governance*

The CUA partners each have a Governing Body and Academic Council, properly constituted under the IoT Act, 2006. Academic Quality Assurance procedures are approved and reviewed by Academic Council. QQI conduct annual institutional dialogue meetings and an Institutional Review every 5-7 years which includes approval of QA procedures and of delegated authority. All three institutions are in good standing with QQI. It is expected that

legislation will be enacted to ensure that the TU has self-accrediting powers across all levels and the CUA will prepare itself to function as a self-awarding TU.

As outlined in section 5.7, the TU will develop a single governance model. Development work has already commenced to bring academic processes within one governance framework (criterion 8d).

43% of CUA funding comes from the state (Figure 1). Annual audited financial data is returned to the HEA and reviews are routinely conducted across all functions by internal audit teams, by the C&AG and external consultants. Each of the Institutes are in compliance with the nationally agreed Code of Governance and Internal Controls Framework and operate a Risk Register management process. There is regular dialogue with the HEA in relation to programmes and budgets, compact agreements and other matters that arise from time to time.

### *Management*

The leadership and management structure for the TU will need to be developed. In contrast to the more urban-based universities with campuses in close proximity, the TU in the CU region may need to have a distributed management structure across its campuses. Cross-campus structures and processes will be necessary to facilitate engagement of staff on, for example, programme boards, Academic Council, non-academic functional meetings and other relevant functions. Consensus will be required to provide a single entity process, and for developing policies and procedures to achieve effective operation. At some stage, an overarching proto-TU governance and management team with, potentially, a full-time steering committee may be required.

The workplace practices and employment contracts will be reflective of a modern university (criterion 8e) and will facilitate delivery of the TU mission. This will include provision of flexibly delivered programmes, the availability of educational resources to meet the needs of regional enterprises, and increased engagement in research, innovation and entrepreneurial activities.

### **Next Stage**

Based on the experience of others who have enacted institutional transformation, it is evident that the process takes time <sup>[65, 66, 67, 68]</sup>.

A realistic timeline for meeting the TU criteria is estimated to take a minimum of 5 years.

There are many organisational and cultural issues to be addressed to appease the concerns of stakeholders. This will entail significant levels of consultation across all stakeholders which will begin at the point of submitting this expression of interest.

The establishment of the TU will be costly <sup>[65, 66, 67, 68]</sup>, requiring careful budgetary planning as budget requirements are likely to increase as the proposed TU becomes closer to fruition. Current operational deficits will be addressed within the context of the existing autonomous status of each of the partners. There is no assumption that additional funding will be forthcoming from public finances to progress the ambition. The CUA will endeavour to source greater levels of non-exchequer funding (e.g. international fee paying students, fee paying programmes, alumni<sup>bb</sup>) and use this to support the TU development.

Stage 2 of the TU re-designation project will set out the detailed process for the TU to meet its vision and mission. This will include:

- A clear articulation of the mission and vision for a TU for the CU region
- A project plan including project management, involvement of internal functional leaders and external experts, communication processes and risk analysis;
- A financial plan to deliver the objectives of the plan within existing resources, including the resolution of any budget deficit situations and the process of on-going maintenance of a balanced CUA budget.



## 7. Concluding Remarks

This Expression of Interest signals the ambition of the Connacht-Ulster Alliance (comprising GMIT, LYIT and IT Sligo) to become a Technological University in order to better serve the needs of the West/North-West region of Ireland.

The Technological University for the West/North-West region will have a focus of building a vibrant, attractive and sustainable economic, social and cultural environment which will generate, and retain graduate talent capable of growing the economic base in the region. The TU will be actively engaged with enterprises, employers and support agencies to map out a regional development strategy which will create an advantaged region, and it will work to make this strategy a reality.

The proposed regionally-based multi-campus TU will stimulate economic growth across the geographically dispersed West/North-West region by (i) providing flexible delivery of education and (ii) through collaborative research, development and innovation activities with the objective of growing local enterprises and communities. The proposed TU will foster business networks and developmental clusters, and will enhance the ability of the region to attract inward investment.

This document sets out the high level vision for the TU and maps the achievements of the three CUA Institutes against the TU criteria, to date. The motivation for achieving the criteria for re-designation as a Technological University is evident in the level of commitment and collaboration to date from the three IOTs.

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## Appendix 1: Memorandum of Understanding establishing the Connacht-Ulster Alliance

### Connacht-Ulster Strategic Alliance Agreement

between

the Institutes of Technology at Galway-Mayo, Letterkenny and Sligo

**AGREEMENT:** Made on July 9th, 2012.

**BETWEEN:** Institutes of Technology at Galway-Mayo, Letterkenny and Sligo (the partners).

**WHEREBY:** The partners commit to an alliance to deliver on jointly agreed strategic objectives that meet the higher educational service needs of the business and wider communities of the Connacht-Ulster Region of Ireland. This alliance will be known as the Connacht-Ulster Alliance (or the CONNACHT-ULSTER Alliance).

**Scope:** This strategic alliance agreement is intended to provide a clear statement of the depth and breadth of the proposed collaboration between the three partners. Throughout the collaboration proposed in this agreement, the partners will retain their legal independence.

#### Statement of ambition of the CONNACHT-ULSTER Alliance

The three institutions are forming the CONNACHT-ULSTER Alliance with the stated ambition of achieving re-designation as a Technological University.

The mission of the alliance will reflect the specific socio-economic profile of students in the Connacht-Ulster region, the opportunities presented by the region's magnificent natural landscape, the proximity to the border and the growth in high technology industries. Specifically, the CONNACHT-ULSTER Alliance will provide academic leadership to exploit existing strengths and collaboratively develop new opportunities in areas of strategic importance, in the realms of Business, Engineering, Science and Humanities.<sup>cc</sup>

In particular, the CONNACHT-ULSTER Alliance will bring coherence to higher education in the region by:

- a) Within 12 months, formally agreeing a common mission and vision and developing common, shared strategic objectives, with a focus on collaboration.
- b) Agreeing a trajectory to achieve re-designation as a Technological University.
- c) Forming a cluster with other higher education and further education providers in the Connacht and Ulster regions.

#### Characteristics of the CONNACHT-ULSTER Alliance

- a) Leadership of the social and economic development of the Connacht-Ulster region, through enhanced access and the provision of industry-relevant and professionally focussed programmes of higher education;
- b) Vibrant working relationship with the business community, including employers in the Connacht-Ulster region, who will have a corporate role in providing direction and guidance on the education provision. The collective suite of programmes offered by the CONNACHT-ULSTER Alliance will be developed to meet the needs of employers, students and the wider community;

- c) Flexible teaching and learning platform that builds on its established reputation for cost effective and online delivery;
- d) Enhanced student access, transfer and progression pathways between and through the institutions in the alliance;
- e) Externally acknowledged as a high profile higher education alliance in the European higher education arena in its provision of learning and teaching that is informed by applied research;
- f) A higher education alliance delivering an internationally recognised and valued learning experience for students, leading to greater employment opportunities, as indicated by the demand for its programmes and graduates who are employable upon completion of their programmes of study;
- g) Through partnership, delivering its services more cost effectively and efficiently;
- h) More direct and effective access by the business and the wider community to the full range of knowledge transfer, business support and incubation services.

### Rationale

This agreement arises from the impetus created by the recently published National Strategy for Higher Education to 2030 (DES, 2011) in Ireland that creates a context in which the partners will provide a significantly more focussed range of educational services that respond better to the needs of learners and of the businesses and employers in the region.

The CONNACHT-ULSTER Alliance identifies areas where significant added value to the student experience, student learning, the engagement with the business community, resource management and community collaboration may be achieved. The institutions concerned have a track record of cooperation, for example within Lónra. Other examples include Ignite West – A regional Technology Transfer Consortium (NUIG (Lead), GMIT, LYIT and IT Sligo) and the New Frontiers Programme (LYIT and IT Sligo).

### Alliance Profile

The demographics of the Connacht-Ulster region is particularly characterised by a rural population, on the periphery of Europe, spread across eight counties in the Republic of Ireland in addition to Northern Ireland. The North West is a recognised constituency of the European Parliament. The Alliance between the three Institutions, representing two of four provinces in Ireland, brings cohesion in higher education provision across this region.

The CONNACHT-ULSTER Alliance will maintain the professional and vocational education ethos of the constituent IoTs and will develop its programme offerings in close collaboration with industry. There will be a student-centred approach, underpinned by a shared staff development plan that builds on the existing high calibre pedagogical delivery that supports the currency, relevance and sustainability of programmes.

The alliance will develop a common overarching academic quality assurance framework that will be approved through each of its Academic Councils. The CONNACHT-ULSTER Alliance QA Framework will be aligned to the national QA Framework and the development of the proposed TU Quality Assurance procedures. Policies in the area of collaborative, transnational, and joint awards, in consultation with HETAC/QQAI will also be developed. A specific set of operational procedures for

ensuring the quality assurance of the collaboration between the members of the Alliance will be developed.

The CONNACHT-ULSTER Alliance will form a cluster with universities and colleges of Further Education in the region. The cluster will provide tailored support for regional development, stakeholder engagement and engagement between higher education providers, including cross border. The Alliance partners will explore the validation and provision of joint awards for levels 9 and 10 research programmes with cluster universities.

As part of this agreement, it is proposed to develop common strategies, with a view to consolidating services for the following functions across the alliance:

- Programme Offerings
- Online Provision
- Access Support
- Research and Innovation Support
- Library Services
- International Offices
- Careers Services
- MIS
- Human Resources
- Financial Services

### **Student and Graduate Profile**

The CONNACHT-ULSTER Alliance will be a leader in providing accessible pathways and alternative routes to higher education. Specifically the alliance will further develop access initiatives for students from socio-economic disadvantage, mature, first time education and further education backgrounds and will actively promote and implement admissions based on the recognition of prior learning (RPL).

The portfolio of programmes offered by the CONNACHT-ULSTER Alliance will attract and be relevant to the needs of the growing population of students from the region.

The alliance will be defined by the quality and employability of its graduates. The alliance, through its academic programmes and approach to learning and teaching, will ensure that all its graduates have a comprehensive understanding of relevant disciplines, professional knowledge and skills appropriate to their awards.

### **Staff Profile**

The CONNACHT-ULSTER Alliance acknowledges the achievements and capabilities of its staff and will continue to recruit staff with significant professional work experience and competence in relevant employment roles. The alliance is cognisant of the metrics and profile specified for academic staff in the criteria for TU and will have a heightened awareness of the need for coordinated recruitment of staff with the potential to contribute to teaching and research objectives.

Targeted professional doctorate provision will be established across the alliance for academic staff with potential for up-skilling. Research opportunities will be supported through bursaries and research capacity building initiatives, work allocations and through support for the dissemination of research findings through academic and professional publications and conferences and seminars.

Staff will be trained appropriately and will collaborate with their counterparts across the alliance.

The CONNACHT-ULSTER Alliance will develop administrative and technical support structures that ensure optimal integration of services, where appropriate, and will provide the necessary training and development for administrative staff to achieve this integration. The alliance will review its work practices across the 3 institutions with a view to developing more effective workflow efficiencies and businesses processes.

### **Teaching, Learning and Curriculum Development**

Student centred learning will be the focus of the Learning and Teaching Strategy for the CONNACHT-ULSTER Alliance. The alliance will respond to the unique dimensions of disadvantage in our region. There will be a particular drive to develop part-time, flexible and blended delivery methods appropriate to the learning styles of the student cohort. There will be a high priority given to the development of online delivered programmes with a particular focus on bespoke delivery to meet the needs of industry.

The CONNACHT-ULSTER Alliance will deliver higher education major programmes at levels 6 to 10 on the National Framework of Qualifications (NFQ) and Minor, Supplemental, and Special Purpose Awards, based on the identified needs of students and employers.

As part of the common shared strategic objective, the alliance will collaborate to provide programmes in strategically important areas, in line with the Higher Education Strategy.

### **Research**

The CONNACHT-ULSTER Alliance recognises that there is a significant effort required to achieve the metrics for research in the HEA Technological University criteria.

The alliance, together with regional businesses and the community, will agree a common Research, Development & Innovation Strategy that builds a vibrant and visible research and innovation community. This will be informed by the niche and differentiated research expertise of the three institutions, and the priorities of the geographical regions being served. The alliance will establish a small number of high quality research centres of excellence capable of competing for national and international funding. The alliance recognises that, while there is a high level of research expertise within the three Institutions, it will work towards growing new applied research areas.

The alliance proposes to develop a joint research strategy.

The partners in the CONNACHT-ULSTER Alliance will collaborate with each other in making joint applications for research funding.

### **International Profile**

The partners will combine their resources to substantially grow the number of international students across the CONNACHT-ULSTER Alliance institutions. The alliance supports the objectives, targets and strategic actions outlined in Investing in Global Relationships<sup>dd</sup> and will develop a common International strategy for the Connacht-Ulster region. The objectives of this strategy will be to identify niche markets for the recruitment of international students and establishment of structures to ensure the sustainability of the provision of a quality experience for international students. The strategy will also generate non-exchequer income through the recruitment of non-EU students and will optimise the utilisation of resources in the provision of education to these students.

The alliance will develop a strategy for teaching and research collaborations with international HE providers.

The alliance will also develop collaborations with international partners in the provision of student support services.

**Leadership, Management and Governance**

This agreement has the approval of the Governing Bodies of the three partner Institutions. A CONNACHT-ULSTER Alliance Working Committee will be constituted to consider the governance and management of the alliance. This committee will monitor and report on progress towards the objectives of the alliance, to recommend actions and to oversee the communication process. The importance of coordinated and managed communication is recognised and a common approach will be established.

**Implementation Plan**

An immediate task following the signing of this agreement is the development of an implementation plan. This will clearly set out objectives and timelines. An early element in the process will involve developing and communicating a risk assessment and business plan.

A draft implementation plan will be approved by December 2012.

Signed under seal, on behalf of **Galway-Mayo Institute of Technology**

\_\_\_\_\_ Governing Body Chair

Date: \_\_\_\_\_

\_\_\_\_\_ President

Date: \_\_\_\_\_

Signed under seal, on behalf of **Institute of Technology, Sligo**

\_\_\_\_\_ Governing Body Chair

Date: \_\_\_\_\_

\_\_\_\_\_ President

Date: \_\_\_\_\_

Signed under seal, on behalf of **Letterkenny Institute of Technology**

\_\_\_\_\_ Governing Body Chair

Date: \_\_\_\_\_

\_\_\_\_\_ President

Date: \_\_\_\_\_



## Appendix 2: CUA Guiding Principles Towards Achievement of Technological University (TU) Re-Designation

1. The partners affirm their commitment to working towards the achievement of TU re-designation. The achievement of TU re-designation will result in the creation of a new entity and requires (a) reaching the TU criteria, and (b) demonstrating a record of strong collaboration between the partners.
2. The partners agree to work together to achieve greater collaboration and coherence between the three institutions in terms of systems and processes while respecting the autonomy of each institution in their dealings with the HEA, DES, QQI or other stakeholders.
3. The partners will agree a timeframe to complete each stage of the TU application process. Each stage submission will be evaluated by the partners, considered within each institution and approved by each Governing Body.

The partners will work to progress through the TU process together. In the event that all three partners cannot agree to progress a given stage of the TU process two of the partners may agree to proceed if they consider this necessary to avoid a damaging delay to the process. The third partner will have the option of re-engaging in the process at a later date, where this is feasible. The decision around Stage 4 involving a merger will be based on evidence of substantial achievement of the TU Criteria.

4. The partners may agree to the inclusion of additional partners in the process, where this is feasible.
5. The trajectory towards the achievement of the TU criteria will be evaluated annually by the partners.

The partners agree that re-designation as TU is a challenging but achievable medium-process which will require the full engagement of the partners from the outset in order to be successful.

The focus of the CUA is to achieve the criteria for TU re-designation and to foster collaboration and coherence between the partners.

6. The key drivers of the implementation will be the CUA Steering Committee and the Executive Board in each institution.
7. It is recognised that each institution in the CUA will engage in other collaborative arrangements with other HEIs as appropriate.
8. The partners will agree a communications strategy and joint communiqués so that internal and external stakeholders will be informed on an on-going basis of matters relating to the CUA and TU re-designation. It is a matter for each partner to ensure all internal stakeholders appropriately informed.

### Appendix 3: Examples of International Regionally focussed, multi campus universities

For the purposes of this submission, four regionally-based, multi-campus universities have been selected as exemplars of the TU for the West/North-West region. These universities provide a picture of the embodiment the TU for the West/North-West region. These are: Charles Sturt University, New South Wales, Australia; Baden-Württemberg Cooperative State University, German Federal State, the University of the Highlands and Islands, Scotland and Øresund University, spanning the Swedish, Danish border region, see details below.

In all cases there is a strong focus on services to the community and practical learning experiences. There is an emphasis on partnerships with industry, government, and other educational organisations and on student internships and practical placements. Programmes are typically delivered across all campuses, developed in partnership with industrial and professional bodies in the region. Active partnering with companies and other employers is considered important to secure student work experience and for collaborative research projects. In one university, students routinely switch between academic studies and practical training with their workplace training company in a type of 'sandwich' apprenticeship training model. In that case, concurrent employment with one of the college's cooperative education partners is a requirement for student admission.

Regarding the multi-campus nature of these universities, some are centrally governed and others allow each campus to manage themselves at a local level. The extent of the distributive control model tends to be a function of the type of campuses – i.e. whether urban or rural, large or small, specialising in certain disciplines or providing a more broad-based portfolio of disciplines. Partnership with other education providers, including FE colleges in the region is deemed important as is, of course, partnership with regional employers and support agencies. In all cases, education is provided through a network of learning centres which include the various university campuses outreach centres and well distributed study facilities. Online learning facilities are typically used to extend the reach of delivery across the entire region.

One university is in fact a consortium of eleven universities and university colleges, with the specific objective of building a strong scientific platform. Ease of access to courses, libraries and other facilities to all students, teachers and researchers across the region is facilitated.

Some of the key learning from these exemplars include:

- uniting different HEIs across multiple campuses can lead to enhanced and effective services and programme provision for students across geographical distances;
- there are many different models of governance for HEIs who come together; good governance arrangements are crucial in the context of the coming together of a number of institutions across multiple campuses;
- allocation of funding will drive behaviour towards a unified (or separate) multi campus university,
- robust structures and mechanisms are needed to ensure constant and good quality communication to the appropriate people;
- agreement on terms and conditions of staff working across all campuses is important to ensure equity of workload, and consistency of services to regional partners and students;
- investment in ICT is essential to facilitate collaboration, and delivery of programmes and services over a wide geographical area and across multiple campuses.

#### Charles Sturt University<sup>ee</sup>

Charles Sturt University (CSU) is a multi-campus public university located in New South Wales, Victoria, and the Australian Capital Territory. The University's origins date back to the establishment of Experimental Farms in Bathurst in 1895 and Wagga Wagga in 1896, and its history includes the

development of Teachers Colleges on those sites in Wagga Wagga in 1947 and Bathurst in 1951. CSU was established in 1989 and is Australia's largest regional university and the country's leading provider of distance education. There is a strong focus on services to the community and practical learning experiences for students that has led to the establishment of several clinics and enterprises. and a strong emphasis on partnerships with industry, government, and other educational organisations and on student internships and practical placements. The university has 40,000 students across 8 State-wide campuses and a campus in Ontario (Canada). It has specialist centres in North Parramatta, Manly (Sydney), and Broken Hill. Courses are also delivered in conjunction with Study Group Australia in Sydney and Melbourne. CSU also has various course delivery partnerships with several TAFE institutions across the country. All of these campuses' are located a considerable distance from each other – for example, the Broken Hill campus is located 1,100 km from the Manly campus.

### **The Baden-Württemberg Cooperative State University**

The Baden-Württemberg Cooperative State University (German: *Duale Hochschule Baden-Württemberg*, DHBW<sup>ff</sup>) is one of the largest HEIs in the German Federal State with some 34,000 students, over 9,000 partner companies and more than 125,000 graduates. It has 9 locations and 3 campuses throughout the state. It's by-line is 'Theory and practice – the key to success'. It offers dual-education (cooperative education) bachelor's-degree programs in cooperation with industry and non-profit institutions in the areas of business administration, engineering, and social services. The key feature of the so-called cooperative dual' education is that students regularly switch from their academic studies at the university to practical training by their workplace training provider (partner company). Concurrent employment with one of the college's cooperative education partners is a requirement for student admission. The recruitment is exclusively done by the cooperative education partners. The key benefits of this approach are: students are financially independent (students are employed), the learning is varied (to suit the needs of employers) and intensive (to suit the short 'sandwich' mode of formal learning periods) lecturers are kept up to date in current industrial knowledge and practices, and classes are typically small.

### **University of the Highlands and Islands<sup>gg</sup>**

UHI Millennium Institute owes its origin to a desire to provide university education to the people of the highlands and islands of Scotland. Scotland, with a population of about 5M has 13 universities plus colleges of further education. All of these are located in the east and south of the country. Edinburgh alone with a population of 400,000 has four universities. North and west of a line from Perth to Aberdeen there is no university.

The UHI project was established in 1992 and, with the support of millennium Commission funding, achieved higher education institute status in 2001. In 2008 it received taught degree awarding powers and is currently pursuing research degree awarding powers with a view to obtaining full university status within the next 3 to 5 years.

The UHI is a partnership of 13 independent colleges and research institutions, providing access to study at further and higher education level as well as research opportunities to some 7,500 students across two faculties (Arts, Humanities & Business and Science health & Engineering). Each partner serves local, regional, national and international needs, as well as making a distinctive contribution to the university partnership. There is also a partnership with local FE colleges which deliver further education to nearly 33,000 students in the region.

Each partner has its own character. Some are relatively large colleges in the urban centres of the region such as Perth, Elgin and Inverness. Others are smaller institutions, including some whose primary focus is on research. All, however, have a student-centred culture and an individual approach to student learning. In addition to the main campuses, the partnership also provides

educational opportunities through a network of more than 70 learning centres located throughout the Highlands and Islands, Moray and Perthshire, covering a large geographical territory.

A number of the institutions have gained significantly in terms of research funding and capital developments with the support of UHI. Some of the lessons learned during a visit by IoTI to UHI include:

1. Governance arrangements are crucial in determining where the balance of power lies;
2. Dual sources of funding drive behaviour (which may, in fact, be damaging to the mission of UHI);
3. The partner institutions invested heavily in ICT which made collaboration over a wide area possible (e.g. there are 1,200 video conference meetings a week);
4. Planning for constant and varied communication is essential;
5. Some form of centralised control over terms and conditions of the people who work for the partner institutions is necessary if issues such as research are to be adequately addressed.

### **Øresund University<sup>hh</sup>**

Øresund University is a consortium of eleven universities and university colleges on both sides of the Danish-Swedish region of Øresund. The consortium of universities is based on the geographical proximity and a long common history and culture. Aiming at becoming a significant science region, the consortium increases quality and efficiency among the participating institutions by opening up all courses, libraries and other facilities to all students, teachers and researchers.

All involved in Øresund University have easy access to "the other side" of the region. The education and research of both countries thus complement each other in making Øresund a scientific and educational stronghold.

Øresund University is directed by the 11 vice-chancellors of the participating institutions. A secretariat manages the day-to-day running of Øresund University and is responsible for coordinating all projects in which it participates. The various co-operation efforts within Øresund University take place mainly at faculty and departmental level, including collaborative projects, networks or formalised agreements about education and research. Co-operation also comprises many other university services such as study administration, contacts with the surrounding community, international issues and information.





**DISCIPLINARY MIX**

First Year Full-time Undergraduate New Entrants		Doctorate (All modes)			
	No.	%			
General Programmes	0	0%	General Programmes	0	0%
Education Science	0	0%	Education Science	0	0%
Humanities & Arts	264	7%	Humanities & Arts	0	0%
Social Science, Business & Law	774	21%	Social Science, Business & Law	9	24%
Science	768	21%	Science	15	39%
Engineering, Manufacturing & Construction	744	20%	Engineering, Manufacturing & Construction	6	16%
Agriculture & Veterinary	87	2%	Agriculture & Veterinary	0	0%
Health & Welfare	428	12%	Health & Welfare	8	21%
Services	625	17%	Services	0	0%
Combined	0	0%	Combined	0	0%
<b>Total</b>	<b>3,690</b>	<b>100%</b>	<b>Total</b>	<b>38</b>	<b>100%</b>

**PARTICIPATION**

	No.	%		No.	%
(% of Total Enrolments incl. Flexible Learning)			(% of New Entrants)		
Flexible Learners (PT, Distance, E-Learning, In-Service)	3,221	28%	Mature Entrants (Full-time Undergraduate)	792	21%
Participants in Labour Market Activation (Springboard/LMA)	512	N/A	Estimate: Entrants with Disability (EAS)	97	3%
(% of National Participation)			Estimate: Entrants from Non-Manual, Semi- and Unskilled Socio-economic Backgrounds (EAS)	940	25%
Regional Intake (% of Full-time Enrolments from the institution's county and bordering counties)		N/A			
		N/A			

**INTERNATIONALISATION**

	No.	%		No.
International Students (Full-time)	233	2%	Erasmus Students Outgoing (excl. work placements)	33
(% of Full-time Enrolments)				
EU	73	1%		
Non-EU	160	1%		



STAFF

	No.	%
<b>Core Staff</b>	1,342	100%
Academic Staff	791	59%
Support staff	551	41%
<b>Contract Research &amp; Specialist Staff</b>	86	100%
Academic Staff	43	50%
Support staff	43	50%
<b>Total Staff</b>	1,428	100%
Total Academic	834	58%
Total Support	594	42%

Non-Academic/Academic Staff Ratio (Core)  
Student/Academic Staff Ratio (FTE/Core)

0.7  
16.5

Staff Age Profile: (Proportion of Staff aged...)  
20-39  
40-54  
55 and above

	%
20-39	N/A
40-54	N/A
55 and above	N/A

Proportion of Academic Staff who are female  
Proportion of Senior Academic Staff who are female

	%
Proportion of Academic Staff who are female	46%
Proportion of Senior Academic Staff who are female	N/A

Staff Qualifications (Proportion of...)

- Full-time Academic Staff with Masters or higher qual.
- Full-time Academic Staff with Doctorate qualification
- All Academic Staff with Masters or higher qualification
- All Academic Staff with Doctorate qualification

	%
Full-time Academic Staff with Masters or higher qual.	86%
Full-time Academic Staff with Doctorate qualification	21%
All Academic Staff with Masters or higher qualification	83%
All Academic Staff with Doctorate qualification	21%

1 Total expenditure per FTE student excluding research and depreciation with pension adjustments, based on unadjusted SAS numbers.

FINANCIAL 2011/12 DATA

	€ 000	%
<b>Total Income</b>	121,555	100%
State Grants	57,422	47%
Fees	46,616	38%
Exchequer	15,636	13%
Non-Exchequer	30,980	25%
Research Grants & Contracts	5,564	5%
Other Income	11,953	10%
<b>Total Expenditure</b>	118,871	100%
Core - Pay	89,095	75%
Core - Non-Pay	24,101	20%
Research Grants & Contracts - Pay	2,472	2%
Research Grants & Contracts - Non-Pay	3,203	3%

Total Expenditure per Student (SRS)1  
Exchequer/Non-Exchequer Fees Ratio

Total Expenditure per Student (SRS)1	N/A
Exchequer/Non-Exchequer Fees Ratio	0.5

Pay/Non-Pay Expenditure Ratio (incl. Research)  
Pay/Non-Pay Expenditure Ratio (excl. Research)

Pay/Non-Pay Expenditure Ratio (incl. Research)	3.4
Pay/Non-Pay Expenditure Ratio (excl. Research)	3.7

Net Space per FTE Student  
Gross Space per FTE Student

Net Space per FTE Student	7.4
Gross Space per FTE Student	10.3

### Appendix 5: Future CUA Profile – based on the indicative 2016/17 forecast from Compact Agreements

#### STUDENT NUMBERS

Entrants		Graduates	
	No.		Nos.
New Entrants (Full-time Undergraduate)	4,416	Undergraduate Graduates	91
		Postgraduate Graduates	9
			%
			%
			100%

Enrollments	Full-time%		Total	Other Enrollments (IoTIs only)	%	Full-time%	Part-time%	Total
<b>Other Enrollments (IoTIs only)</b>	200	232	432	Foundation	%			100%
Foundation	153	28	181	FETAC Cert	%			
FETAC Cert	0	0	0	FETAC Advanced Cert	%		100	100%
FETAC Advanced Cert	47	204	251	of which are apprenticeships	%			
of which are apprenticeships	0	74	74					
<b>Undergraduate</b>	12,300	3,001	15,302	<b>Undergraduate</b>	%	80	20	94%
Higher certificate	858	543	1,401	Higher certificate	%	61	39	9%
Ordinary Degree (L7)	6,912	1,410	8,322	Ordinary Degree (L7)	%	83	17	51%
Honours Degree (L8)	4,530	822	5,353	Honours Degree (L8)	%	85	15	33%
Occasional				Occasional	%			
<b>Postgraduate</b>	380	550	930	<b>Postgraduate</b>	%	41	59	6%
Postgrad Diploma/Cert	112	135	247	Postgrad Diploma/Cert	%	45	55	2%
Masters Taught (L9)	90	398	488	Masters Taught (L9)	%	18	82	3%
Masters Research (L9)	126	15	141	Masters Research (L9)	%	89	11	1%
PhD (L10)	52	2	54	PhD (L10)	%	95	5	0%
Occasional				Occasional	%			
<b>Total Enrollments</b>	12,680	3,551	16,232	<b>Total Enrollments</b>	%			100%
Research & Taught (L9/10)			476	Research & Taught (L9 % FTE L8 and All PG				8%
Research (L9/10)			187	Research (L9/10)	% FTE L8 and All PG			3%
Research (L10)			53	Research (L10)	% FTE L8 and All PG			1%

**DISCIPLINARY MIX**

Full-time Undergraduate New Entrants	%	Full and Part-time PhDs	%
General Programmes	0	General Programmes	0
Education Science	58	Education Science	0
Humanities & Arts	338	Humanities & Arts	2
Social Science, Business & Law	1,302	Social Science, Business & Law	9
Science	879	Science	25
Engineering, Manufacturing & Construction	1,095	Engineering, Manufacturing & Construction	18
Agriculture & Veterinary	117	Agriculture & Veterinary	0
Health & Welfare	182	Health & Welfare	0
Services	445	Services	0
Combined	0	Combined	0
<b>Total</b>	<b>4,416</b>	<b>Total</b>	<b>54</b>
	<b>100%</b>		<b>100%</b>

**STUDENT PROFILE**

(% of Enrolments)	%	(% of New Entrants)	%
Flexible Learners (Part-time, Distance, E-Learning)	3,998	Mature Entrants (Full-time Undergraduate)	1030
International Students (Full-time)	792	Estimate: Entrants with Disability (EAS***)	380
EU	346		
Non-EU	446		

**STAFF & FINANCIAL DATA**

	%		%
<b>Core Staff</b>	<b>1,325</b>	<b>Total Income</b>	<b>129,230</b>
Academic Staff	776	State Grants	53,288
Support staff	548	Fees	51,292
<b>Contract Research &amp; Specialist Staff</b>	<b>114</b>	Research Grants & Contracts	7,000
Academic Staff	60	Other Income	17,650
Support staff	54	<b>Total Expenditure</b>	<b>129,230</b>
<b>Total Staff</b>	<b>1,439</b>	Core - Pay	90,305
Total Academic	836	Core - Non-Pay	31,925
Total Support	602	Research Grants & Contracts - Pay	3,000
	42%	Research Grants & Contracts - Non-Pay	4,000
			3%



Staff Qualifications (as % of total FTE academic staff including research staff)	%
Full-time Academic Staff with PhD qualification	34%
Full-time Academic Staff with PhD or Masters qu.	90%
All Academic Staff with PhD qualification	33%
All Academic Staff with PhD or Masters qualification	89%

## Appendix 6: Definitions of the TU criteria

The criteria as provided in Appendix A (see below) of the Landscape document have been numbered for ease of reference.

The following is a list of the criteria that are specified as a metric. In each case, the target metric and the data source that will be used to quantify that metric is identified.

### At the time of application for designation as a TU:

#### Student Profile

- 1) **Criteria:** Level 9 & 10 research enrolments in research programmes at Levels 9 and 10.

**Reference in the TU Criteria:** 3.2a

**Target:** 4% of FTE at L8-10; 7% within 10 years

**Data Source:** SRS/HEA returns as of March 1<sup>st</sup> each year

- 2) **Criteria:** Life Long Learning

**Target:** 30% of all students will be in the category part time and/or open and distance learning and/or elearning.(as specified in HEA returns codes). Apprentices are not included in this.

**Reference in the TU Criteria:** 3.2b

**Data Source:** SRS/HEA returns as of March 1<sup>st</sup> each year

(Note: the criteria – see Appendix A below - inadequately defined as including students ‘on professional focussed programmes and industry up-skilling, including part-time, work-related programmes and work-study programmes and/or mature learners’. For the purposes of the Expression of Interest, LLL will comprise only those designated in the SRS returns as Part time + distance learning + elearning. Matures (over 23 years old on the date of first entry to HE) will also be recorded, but under a separate heading.

#### Staff qualifications

- 3) **Criteria:** qualifications of full time, academic staff engaged in delivering higher education programmes

**Target:** 90% will hold a Level 9 qualification or higher.

**Reference in the TU Criteria:** 4.2a

**Data Source:** Information supplied by each of the Institutes based on staffing returns to HEA /HR offices or other data holder

- 4) **Criteria:** full time, higher education, academic staff, to hold a Level 10 qualification or the equivalence in professional experience, combined with a terminal degree appropriate to their profession.

**Target:** 45%, growing to 65% within 10 years of designation

**Reference in the TU Criteria:** 4.2b

**Data Source:** Information supplied by each of the institutes based on staffing returns to HEA / HR offices or other data holder

- 5) **Criteria:** in the fields of knowledge/study in which doctoral level training and research is on-going, the proportion of staff holding Level 10 qualifications

**Target:** 80%

**Reference in the TU Criteria:** 4.2c

**Data Source:** Information supplied by each of the institutes/research offices

## 'Appendix A': Criteria for a Technological University<sup>[14]</sup>

### 1 Mission

**1.1** A technological university will have a systematic focus on the preparation of graduates for complex professional roles in a changing technological world. It will advance knowledge through research and scholarship and disseminate this knowledge to meet the needs of society and enterprise. It will have particular regard to the needs of the region in which the university is located.

**1.2** Having regard to the mission of a technological university, these criteria set out the requirements that are to be met by an applicant before designation can be made.

### 2 Institutional Profile

**2.1** The university will –

- a) be characterised by the breadth of its programme provision across higher education Levels 6 to 10 of the National Framework of Qualifications.
- b) have programmes of study that are vocationally/professionally oriented, with a strong focus on science and technology.
- c) have programmes of study that incorporate structured work placement.
- d) have programmes that address the social and economic needs of the region in which the university is located.
- e) have sufficient resources and critical mass to ensure appropriate pedagogical and research quality and depth of faculty expertise to meet the mission of the institution.
- f) have sufficient critical mass to support effective and efficient governance and administration and to provide an appropriate level of student services.
- g) maintain an active research policy primarily focused on applied, problem oriented research and discovery, with effective knowledge transfer alongside the provision of consulting/problem solving services that are particularly relevant to the region.
- h) support intensive and broad-based links with regional business, enterprise, professions and related stakeholders that inform curriculum, teaching and learning, assessment and research.

### 3 Student Profile

**3.1** The student profile of the university will match its stated mission. Specifically, the university will provide programmes at higher education Levels 6 to 10 to meet local, regional and national demand and to meet the university's responsibilities in respect of educational opportunities at these levels.

**3.2** At the time of application for designation as a technological university –

- a) enrolment in the applicant institution in research programmes at Levels 9-10 will not be less than **4%** of FTE enrolments at levels 8 to 10. In addition, the application must evidence a developmental trajectory, showing that the institution will raise these enrolments to 7% within a period of ten years from the date of designation. Level 10 provision will be concentrated in a small number of fields/departments which have the capacity and credibility to offer this level of study and training to the level set by the national PhD standard;
- b) a combined minimum of **30%** of all students in the applicant institution will be lifelong learning students enrolled on professional focused programmes and industry up-skilling, including part-time, work-related programmes and work-study programmes and/or mature learners.

**3.3** Where the institutions that consolidate to comprise a technological university have been providing, prior to consolidation, non-higher education programmes (as defined by the National Framework of Qualifications) the university will, if necessary to meet local, regional and national demand, ensure this activity continues, either directly or indirectly, through appropriate administrative and academic arrangements that allow for the sharing of academic facilities and the progression of students.

## 4 Staff Profile

**4.1** A technological university will in the appointment, management and progression/promotion of academic staff to and within the university have in place contractual and appointment procedures that, *inter alia*, -

- a) give weight to professional practice and institutional engagement activities and
- b) provide existing staff members with a balance between teaching, research, engagement activities and academic administration that is appropriate to their subject area and their academic experience.

**4.2** At the time of application for designation –

- a) **90%** of full time, academic staff engaged in delivering higher education programmes in the applicant institution will hold a Level 9 qualification or higher.
- b) at least **45%** per cent of full time, higher education, academic staff, will hold a Level 10 qualification or the equivalence in professional experience, combined with a terminal degree appropriate to their profession. The proportion of such staff that hold an equivalence in professional experience shall not exceed 10% of full time, higher education, academic staff. There will be demonstrable evidence of a developmental trajectory that shows the capacity, including staff with equivalence in professional experience as referred to, to increase and reach levels consistent with other Irish universities but not less than 65% within ten years of designation. These staff will not only hold Level 10 qualifications or equivalent in professional experience, but also be able to demonstrate sustained activity in relevant areas of research and development.
- c) in the fields of knowledge/study in which doctoral level training and research is on-going, the proportion of staff holding Level 10 qualifications will be in excess of **80%**. As a general principle, only those with Level 10 qualifications will be engaged in the delivery and supervision of Level 9 programmes. Only those with Level 10 qualifications and with a sustained record of research publications and mission-appropriate research outputs will be engaged in the delivery and supervision of Level 10 programmes.

## 5 Teaching, Learning and Curriculum Development

**5.1** A technological university will have the curriculum and the teaching, learning and assessment processes to support its core mission to develop graduates who have a focus on the world of work. The full opportunities provided by the National Framework of Qualifications for enhanced teaching, learning and curriculum development will be incorporated, with a particular focus on-

- a) Curriculum development focused on knowledge, skills and competencies developed in conjunction with business, professional organisations and, workforce, student and occupational organisations;
- b) Curricula that embed the full range of generic attributes linked to employability and citizenship;
- c) Curricula that embed engagement in the workplace as part of its programmes;
- d) Research-informed and practice-led teaching, learning and assessment that uses problem-oriented, practice-based and is community engaged.

## 6 Research

**6.1** The research dimension of a technological university will-

- a) Focus on applied, problem-oriented research and social and technological development and innovation, with direct social and economic impacts and public and private benefits in the region in which the university is located;

- b) Support and sustain research activity among its staff that can be compared to appropriate international benchmarks. Such benchmarks will include *inter alia* evidence of cooperative research groups of a viable scale, success in winning competitive research funding nationally and internationally and inter-institutional research collaboration;
- c) In linking research to teaching, demonstrate methodological approaches to the formation of level 10 knowledge, skills and competencies that are appropriate to the institution's research mission and meet national PhD level standards. This will be through the integration of practice-led, professional, and industrial doctorate structures alongside more traditional PI-led approaches, all within the context of national policy for structured PhD provision.

**6.2** An applicant institution will, at the time of application, –

- a) have existing research capacity to support on-going programmes, projects and doctoral training in at least three fields of knowledge/study as defined by ISCED fields of study at the 2-digit level (ISCED2 – “Narrow fields”); SCED codes are outlined on the HEA website at <http://www.hea.ie/files/files/file/statistics/SRS%20User%20Files/EurostatISCED.pdf>

and

- b) demonstrate a developmental trajectory showing that the institution can extend research and doctoral activity to sufficient capacity to support two further fields, as defined by ISCED2 within five years of designation as a technological university.

## 7 International Profile

**7.1** The international engagement of a technological university will specifically reflect its mission and orientation.

**7.2** At the time of application, an applicant will demonstrate a developmental trajectory for the enhancement of internationalisation related to teaching and learning, research and staff development and a sustainable range of international collaborations such as joint projects, student and staff exchanges including the collaborative provision of academic and training programmes.

## 8 Leadership, Management and Governance

**8.1** The leadership management and governance arrangements in place will be fully reflective of and in line with the stated mission of the institution. In practice this will mean -

- a) governance structures that reflect the external orientation of the institution and the engagement focus of its programmes of study;
- b) an integrated academic governance structure that gives coherence to multiple units, with consolidation of previously autonomous institutions where these existed, within the framework of the institution's mission.
- c) a leadership team that combines strong academic credentials and experience with experience in enterprise and professions relevant to the institution's mission.
- d) effective institutional-level academic governance with the authority, processes and competence to ensure the quality of programmes of study and the quality and integrity of other academic matters;
- e) workplace practices and employment contracts are reflective of a modern university including, *inter alia*, such matters as the flexible delivery of programmes for diverse learner groups, the length and structure of the academic year, the efficient utilisation of the institution's physical resources and other infrastructure.



## End Notes

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- a agreed with the HEA in Spring 2014
- b See - <http://cualliance.ie/whats-new.html>
- c See: <http://nwra.ie/>
- d Gross Value Added (GVA) at *basic prices* is a measure of the value of the final goods and services produced in a region (less materials and services used coming from outside the region) priced at the producers received value minus any taxes, plus any subsidies received. This is expressed as a % of the national total in Figure 2.
- e A measure of the demographic profile, social class composition and labour market profile (i.e. family size, parental status, unemployment and socio-economic classification)[14]
- f Source: Personal communication with Statistics Office, HEA (email 01.12.14). The data refers to undergraduate only and full-time only.
- g Of the national population, 69.4% do not hold a 3rd level qualification (CSO 2011).
- h “Building a Learning Region Together”, a collaboration of HEIs across the BMW
- i The series of reviews by the OECD on the role of *HE in Regional and City Development* is instructive - [http://www.oecd-ilibrary.org/education/higher-education-in-regional-and-city-development\\_22183140](http://www.oecd-ilibrary.org/education/higher-education-in-regional-and-city-development_22183140)
- j e.g. ‘The shape of jobs to come’; <http://fastfuture.com/>
- k a perusal of FDI locations across the country will verify that fact
- l See also ‘Impact of distance on access to education’, Irish Times, 8th Dec, 2014; <http://www.irishtimes.com/opinion/letters/impact-of-distance-on-access-to-education-1.2027657>
- m In this context, the term ‘applied research’ is understood to include research, development and innovation (RDI) activities that solve societal challenges through, and alongside, developing new technologies, products, processes and services, i.e. aligned with Horizon 2020 and other EU research initiatives.
- n e.g. Engineers Ireland, Chartered Accountants Ireland, the Institution of Occupational Safety & Health, the Royal Institute of British Architects, RICS, RIAI, Irish Medicines Board and the Chartered Institute of Personnel & Development
- o The Accelerated Campus Entrepreneurship programme is a model for how entrepreneurship can be embedded in the curriculum.
- p There is lower participation by families of the less-skilled workforce and the unemployed. Young people who attend schools in disadvantaged areas achieve lower leaving certificate points than those from middle-class backgrounds and they tend to make subject choices (such as the LC Applied) that does not prepare them well for higher education [55].
- q In Ireland in 2010, only 5 per cent of HE new entrants held FETAC qualifications, despite this group accounting for 15 per cent of CAO applications.
- r Many Irish adults do not hold a Level 8 or higher award or, indeed, any 3rd qualifications. Yet, Ireland ranks below the European average participation in lifelong learning (LLL) and this has declined since 2007 despite the rise in unemployment( [50], Fig 5.[46], [88]).
- s See: <http://odl.itsligo.ie/home/online-learning-news/> and <http://www.independent.ie/life/family/learning/study-online-at-it-sligo-no-matter-where-you-are-26740855.html>
- t <http://nwra.ie/metricireland/>
- u <http://www.nibrt.ie/>
- v <http://thecrestproject.com/>

- w e.g. the existing CREST project is an example of this; <http://thecrestproject.com/>
- x including, IDA, EI, Western Development Commission, Údarás na Gaeltachta, IBEC, Local Enterprise Offices, Leader companies, Chambers of Commerce, ISME, ETBs etc.
- y e.g.
- (a) 25 InterTradeIreland Fusion projects;
  - (b) st£2.8M Interreg IVA funding for the CREST (Centre for Renewable Energy and Sustainable Technologies), project between IT Sligo, South West College, Cavan Institute of Technology and Innovation, Dumfries and Galloway College, Scotland;
  - (c) €1.9M Interreg IIIA funding for the RIM21 robotics/CIM laboratory project between IT Sligo and North East Institute, Ballymena;
  - (d) €3.2million INTERREG IVA funding for the KITE (Knowledge and Innovation Transfer in Engineering) project between IT Sligo, Northern Regional College (NRC) and Ayr College.
- z Nationally, the number of potential undergraduate HE entrants is expected to grow fairly moderately from 41,000 in 2010/2011 to 47,000 in 2019/20 and to over 51,000 by 2026/2027 [70] (i.e. an average annual growth of 1.3%).
- aa see: [www.uis.unesco.org/Library/Documents/isc97-en.pdf](http://www.uis.unesco.org/Library/Documents/isc97-en.pdf) and <http://www.heai.ie/files/files/file/statistics/SRS%20User%20Files/EurostatISCED.pdf>
- bb This would be a new endeavour for the CUA institutions. There is considerable international experience of funding raising for education (particularly in the USA) and a growing level of activity in Ireland. Examples of these include:
- i) Voluntary Support of education, 2013, Council for Aid to Education, USA, [http://www.cae.org/images/uploads/pdf/VSE\\_2013\\_Sample\\_Pages.pdf](http://www.cae.org/images/uploads/pdf/VSE_2013_Sample_Pages.pdf)
  - ii) Irish Universities Look to Graduates for Funds as Atlantic Goes West, The Irish Times, 25 February 2014; <http://www.atlanticphilanthropies.org/news/irish-universities-look-graduates-funds-atlantic-goes-west>
  - iii) Philanthropy in Trinity; <https://www.tcd.ie/development/about/impact.php>
  - iv) Philanthropy Ireland; <http://www.philanthropy.ie/resources/>
  - v) The Role of Philanthropy in Funding Irish Universities, O'Connor, D., Millar, R., 2into3 management Consultants, October 2012; [http://www.2into3.com/\\_fileupload/The%20Role%20of%20Philanthropy%20in%20Funding%20Irish%20Universities.pdf](http://www.2into3.com/_fileupload/The%20Role%20of%20Philanthropy%20in%20Funding%20Irish%20Universities.pdf)
  - vi) The Role, Value and Scale of Higher Education in Ireland, Expert Group on Future Funding for Higher Education, Consultation Paper 1, Department of Education and Skills, January 2012
- cc For example: life sciences, creative industries, ICT, marine, tourism, agri-food, and the energy sector.
- dd Investing in Global Relationships 2010-2015, Report of the High-Level Group on International Education to the Tánaiste and Minister for Education and Skills, September 2010.
- ee <http://www.csu.edu.au/>
- ff <http://www.dhbw.de/english.html>
- gg <http://www.uhi.ac.uk/en/>
- hh <http://www.eucen.eu/BeFlexPlus/CaseStudies/OresundUniversityDescription.pdf>





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