
Application to
the Minister for Further and Higher Education,
Research, Innovation and Science
for an Order to Establish the

Technological University of South-East Ireland

Under the Technological
Universities Act 2018



Waterford Institute *of* Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE



INSTITUTE *of* TECHNOLOGY CARLOW
Institiúid Teicneolaíochta Cheatharlach



**The Technological University
of South-East Ireland will be a
leading European Technological
University recognised for regional
connectedness and global impact
with a student-centred philosophy
transforming lives and achieving
excellence through collaborative
approaches**



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Foreword

Our mission is to create and optimise a multi-campus learning environment, with a presence in the major regional population centres, delivering a quality student experience aligned to guiding values and principles.

The establishment of the Technological University of South-East Ireland¹ will set in train a process that, over the following months and years, will see a university of the highest international standing formed from the combined strengths of Institute of Technology Carlow and Waterford Institute of Technology. Through the quality of our teaching, research and engagement, the new University will contribute to resolving complex societal challenges, meet the needs of future work, act in support of economic and social sustainability and meet the challenges and opportunities of the digital world.


In all our activities, the Technological University (TU) will have a strong sense of public service and its responsibility to the South-East region of Ireland and its social, cultural, economic and environmental development. As the only university in the region, there are, and will continue to be, high expectations of the institution from internal and external stakeholders. Commitment, responsibility and accountability to the region will shape the University's identity, mission and future actions.

In a world increasingly defined by a disruptive knowledge environment, the University will act as a catalyst for development in, and of, the region. As an anchor institution in the South-East, the University will adopt a leadership role as a key nucleus and focal point for a response to socio-economic and educational disadvantage and will be a change agent that can bring cross-regional coherence to regional development strategy and practice. Engagement will be embedded in the formal structures of the organisation and into all programmes and research activity so that staff and students have a high level of sensitivity to, and understanding of, the responsibility and accountability of the University to regional communities.

While having a primary focus on the South-East region of Ireland, we will also continue to engage with, and further develop, the current wider "footprint" of the institutes and enhance our national and international impact. While rooted in our local communities and economies, the University will be outward looking, capable of impactful connection with the more economically advanced neighbouring greater Dublin area and the South-West region, will make a significant contribution to the development of the wider Southern Region (as envisaged in the National Planning Framework²) and will reach out internationally from its roots, drawing international education and research practices directly back into the region as well as economic activity. The University will sustain an extensive network of national, European and global partnerships that drive regional attractiveness to talent and investment through involvement in high-quality international teaching, research and professional networks, through attracting international funding, and through enabling inward and outward international mobility for staff and students.

¹ The Technological University of South-East Ireland (TUSEI) is the working title for the future university.

² Project Ireland 2040: National Planning Framework <https://npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf>




The University will deepen its impact on the regional society and the economy through increased high-quality research and innovation activity, increasing the knowledge capital of the region through enhancing the excellence of the research from within the academy. The University will focus on the application of knowledge to drive the social and economic development of the region in domains of regional specialism and high impact. As a University of considerably enhanced scale and considerably broader range and greater quality of activity in research, the University will contribute to provide high-end, high-impact, well-paid employment opportunities for graduates, postgraduates, researchers and technical professionals in a research environment expanded considerably from that of the existing Institutes.

The University will pursue an approach to learning, teaching and research that will develop our learners' skills, attributes and knowledge in order for them to have rewarding careers, be active and engaged residents of Ireland and with an international outlook. Our approach will be informed by an underlying philosophy that recognises that people learn, and engage with learning, in different ways and the University will adapt to the needs of diverse learners. We will bring an added focus to lifelong learning, to seamless transitions and pathways from a range of different starting points, to transfer and progression within and between universities, other higher education institutions (HEIs) and the further education and training (FET) sector and to progression to employment, further learning, and participation in society.

Our student centredness will also be reflected in the commitment of the TU to co-creation of knowledge as a key characteristic – between students, across the academy, and between the academy, business/enterprise, society and a wide range of partners. Co-creation will underpin and permeate all programme development with structured involvement of, and engagement by, civic society and industry contributing to setting, and delivering on, programme goals. To achieve this, the TU will be outward facing and fully open and responsive to influence from external stakeholders. The curriculum will not only be responsive to external influence but will harness the organisation's research and innovation so that the curriculum is predictive of future social, cultural and economic developments and equips learners for future roles. This will be reflective of the University's broader role; the University will be positioned as a regional thought leader and will initiate as well as respond to regional priorities.

The University will be further characterised by flexibility and accessibility in academic programme development and delivery. We will also take a lead role in reconciling social equality with digitisation by leveraging the use of technology to support learning and teaching. Exploiting the unitary multi-campus nature of our University, we will offer a broad and comprehensive range of learning pathways which are accessible financially and geographically and which provide opportunities for employment. We will expand the range of available disciplines within the University to ensure comprehensive coverage to meet regional need and in support of the development of an interdisciplinary curriculum.

Connectivity and collaboration will be central characteristics of our research. A dynamic relationship between research and teaching will define the student. By embedding research in programme design, students will be able to shape their learning to a greater extent than currently is the case in the Institutes. Relatedly, research centres will be more closely integrated into that activity. Undergraduate students will also be connected into industry-focussed research and undergraduate programmes connected into innovation-centred modules. Other distinctive features of the University



research environment will be seen in the democratisation of research through open science and citizen science. We will also draw more on our extensive research into teaching and learning to inform our practice in the design and delivery of the curriculum.

The TU will consciously maintain, and build on, the past record of the Institutes in their student-centric approach in another way – that is, the sense in which students feel connected to, and supported by, staff. We are ever mindful that students face many novel challenges and need support to overcome them successfully. While developing our teaching and research capabilities will present us with many challenges, we will take conscious and deliberate steps to maintain the existing sense of community and collegiality between staff and students. To do so, among other approaches, a unitary approach to the University will apply which, in essence, will mean that a student in any of the campuses of the multi-campus university will be a student of all campuses and is encouraged to feel a strong sense of belonging. “A student is a student” will be our watchword, irrespective of mode, location and background.

We aim to provide an environment within the University which supports diversity and equality of opportunity and which fosters the values of open-mindedness, critical thinking and creativity in the personal and professional lives of our staff and students. The University will provide staff with the professional development opportunities necessary for them to have fulfilling careers in the new organisation. In the case of academic staff, we are committed to ensuring that all new staff will be supported to undertake training in teaching methods, while existing staff will be provided with opportunities for professional development in this area, as well as enhancing career opportunities and career progression for research staff. Our strong commitment to career development for faculty and research staff will continue. This will be matched with a commitment to career development for professional, management and support staff (PMSS) whose roles we will enhance and enlarge. We see these staff as key contributors to innovation and the success of the teaching and research missions of the University, and vital to sustaining a dynamic learning and innovative community.

We approach the challenge of establishing TUSEI with confidence based on the 50-year long record of the institutes in teaching, research, commitment to our students and working with external partners, on the professionalism and dedication of our staff and the commitment and energy of our students.

John Moore,
Chairman,
Governing Body,
Institute of Technology Carlow

Jim Moore,
Chairman,
Governing Body,
Waterford Institute of Technology

Réamhrá

Is é an misean atá againn timpeallacht foghlama ilchamps a chruthú agus a chothú, ag a bhfuil láithreacht i mór-ionaid réigiúnacha daonra, a chuireann eispéireas ardchaighdeán atá ag teacht le treoirluachanna agus treoirphrionsabail ar fáil do mhic léinn.

Ach a mbunófar Ollscoil Teicneolaíochta Oirdheisceart na hÉireann cuirfear tús le próiseas lena gcruthófar, sna míonna agus sna blianta dá éis sin, ollscoil ar a mbeidh an cáilmheas is airde idirnáisiúnta nuair a thabharfar le chéile buanna Institiúid Teicneolaíochta Cheatharlach agus Institiúid Teicneolaíochta Phort Láirge. De bhun chaighdeán ár gcuid teagaisc, taighde agus rannpháirtíochta, cuideoidh an Ollscoil nua le dúshlán ilghnéitheacha shochoaíocha a réiteach, freastal ar riachtanais oibre amach anseo, gníomhú ar son na hinbhuanaitheachta geilleagraí agus sóisialta agus freastal ar dhúshlán agus ar dheiseanna shaol na digiteachta.

Fearacht gach gníomhaíochta a dhéanaimid, beidh tuiscint mhór ag an Ollscoil Teicneolaíochta dá freagracht do réigiún an Oirdheiscirt agus dá fhorbairt shóisialta, chultúir, gheilleagrach agus timpeallachta. Mar gheall nach mbeidh d'ollscoil sa réigiún ach í, tá ionchais agus uailmhianta móra ag lucht leasa inmheánach agus seachtrach i ndáil leis an institiúid. Múnlóidh tiomantas, freagracht agus cuntasacht don réigiún féiniúlacht, misean agus gníomhartha na hOllscoile amach anseo.

I saol atá níos mó agus níos mó faoi thionchar an eolais shuaitigh, beidh an Ollscoil mar a bheadh cataíoch d'fhorbairt an réigiúin agus don fhorbairt sa réigiún. Agus í ina hinstitiúid ancaire san Oirdheisceart, glacfaidh an Ollscoil ról ceannaireachta mar phríomh-núicléas agus lárphointe do fhreagairt don mhíbhuntáiste oideachasúil agus socheacnamaíoch agus gníomhaire chun an athraithe a bheidh inti a d'fhéadfadh comhleanúnachas tras-réigiúnach a thabhairt d'fhorbairt, do straitéis agus do chleachtas réigiúnach. Déanfar an rannpháirteachas a neadú i struchtúr fhoirmiúla na heagraíochta agus i ngach clár agus gníomhaíocht taighde ionas go mbeidh tuiscint mhór ag baill foirne agus ag mic léinn ar fhreagracht agus ar chuntasacht na hOllscoile do phobail an réigiúin.

Cé go mbeifear ag díriú go príomha ar réigiún Oirdheisceart na hÉireann, leanfaimid orainn den rannpháirtíocht le 'lorg coise' reatha na n-institiúidí, agus forbróimid é sin, agus cuirfimid lenár dtionchar náisiúnta agus idirnáisiúnta. Agus í lonnaithe sna pobail agus sna geilleagair áitiúla, beidh an Ollscoil ag breathnú amach, agus í in ann nascadh le comharsanacht réigiún an Iardheiscirt agus mhórcheantar Bhaile Átha Cliath ag a bhfuil buntáiste geilleagrach agus cuirfidh sí le forbairt réigiún níos leithne an Deiscirt (mar a shamhlaítear sa Chreat Náisiúnta Pleanála) agus sínfidh sí amach go hidirnáisiúnta óna fréamhacha, rud a tharraingeoidh cleachtais idirnáisiúnta oideachais agus taighde ar ais isteach sa réigiún mar aon le gníomhaíocht gheilleagrach. Cothóidh an Ollscoil líonra fairsing comhpháirtíochtaí náisiúnta, idirnáisiúnta agus domhanda a chuirfidh dlús faoi tharraingteacht an réigiúin do thallann agus d'infheistíocht de bhun rannpháirtíochta i líonraí idirnáisiúnta teagaisc, taighde agus gairme, ach infheistíocht idirnáisiúnta a mhealladh agus soghluaisteacht isteach agus amach a éascú do bhaill foirne agus do mhic léinn.

Treiseoidh an Ollscoil a tionchar ar shochaí agus ar gheilleagar an réigiúin de bhun gníomhaíocht bhreise taighde agus nuálachta ar ardchaighdeán, rud a mhéadóidh caipiteal eolais an réigiúin ach feabhas an taighde san ollscoil a chomhdhlúthú. Díreoidh an Ollscoil ar chur i bhfeidhm an eolais a chuirfidh dlús faoi fhorbairt gheilleagrach agus shóisialta an réigiúin i réimsí na speisialtóireachta réigiúnda agus an mhórthionchair. De bhrí go mbainfidh scála níos mó leis an Ollscoil mar aon le raon níos leithne agus caighdeán níos airde gníomhaíochta taighde, cuideoidh an Ollscoil le deiseanna fostaíochta ardréime, mórthionchair, dea-íoctha a chruthú do chéimithe, d'iarchéimithe, do thaighdeoirí agus do lucht gairme teicniúla i dtimpeallacht taighde a bheidh i bhfad níos mó na timpeallachtaí na nInstitiúidí reatha.

Cothóidh an Ollscoil cur chuige i leith na foghlama, an teagaisc agus an taighde a fhorbróidh scileanna, tréithe agus eolas ár bhfoghlaimoirí ionas go mbainfidh siad gairmeacha tairbhiúla amach, go mbeidh siad ina saoránaigh ghníomhacha agus rannpháirteacha de chuid na hÉireann agus go mbeidh dearcadh idirnáisiúnta acu. Is é is bonn leis an gcur chuige againne fealsúnacht bhunúsach a thuigeann go ndéanann daoine foghlaim agus rannpháirtíocht ar bhealaí difriúla agus rachaidh an Ollscoil in oiriúint do riachtanais foghlaimoirí éagsúla. Leagfaimid béim bhreise ar an bhfoghlaim ar feadh an tsaoil, ar thairmtheacht agus ar chonairí gan bhac ó raon pointí tosaigh difriúla, ar aistriú agus ar fhorchéimniú san ollscoil agus le hollscoileanna, le HEI-anna agus leis an earnáil FET agus ar thairmtheacht chun na fostaíochta, na foghlama breise agus na rannpháirtíochta sa tsochaí.

Léireofar lárnacht an mhic léinn freisin i ngealltanais na hOllscoile Teicneolaíochta do chomhchruthú eolais mar phríomhthréith – idir mic léinn, ar fud na hacadúlachta, agus idir an acadúlacht, gnó/fiontraíocht, an tsochaí agus raon leathan comhpháirtithe. Beidh an comhchruthú ina bhonn le gach forbairt cláir agus fite fuaite tríthi agus rannpháirtíocht struchtúrtha na sochaí sibhialta agus an tionscail ag cuidiú le spriocanna cláir a leagan síos agus a sheachadadh. Chun é sin a bhaint amach, beidh an OT ag breathnú amach agus lánoscailte agus freagrúil do thionchar ó lucht leasa seachtrach. Ní hamháin go mbeidh an curaclam freagrúil do thionchar seachtrach ach bainfidh sé leas as taighde agus nuálacht na heagraíochta ionas go dtiocfaidh an curaclam roimh fhorbairtí sóisialta, cultúir agus geilleagair amach anseo agus go mbeidh foghlaimoirí inniúil do ról amach anseo. Beidh sé sin ag teacht le ról níos leithne na hOllscoile; beidh an Ollscoil ina ceannaire réigiúnach smaointe agus cuirfidh sí chun gníomh as a stuaim féin chomh maith le freagairt do thosaíochtaí réigiúnacha.

Bonntréithe na Ollscoile a bheidh sa tsolúbthacht agus san inrochtaineacht i ndáil le cláir acadúla a fhorbairt agus a sheachadadh. Glacfaimid ról ceannais freisin maidir le comhionannas sóisialta a réiteach leis an digitiú ach úsáid na teicneolaíochta a ghíaráil chun tacú leis an bhfoghlaim agus leis an teagasc. Agus leas á bhaint againn as an aonad ilchampas a bheidh ag an Ollscoil, cuirfimid raon leathan agus cuimsitheach conairí foghlama ar fáil, a mbeidh teacht orthu ó thaobh inacmhainneachta agus ceantair, agus a chuirfidh deiseanna fostaíochta ar fáil. Leathnóimid an raon disciplíní a bheidh ar fáil laistigh den Ollscoil chun clúdach cuimsitheach a chinntiú d'fhonn freastal ar riachtanais réigiúnach agus tacú le curaclam idirdhisciplíneach a fhorbairt.

Beidh an nascacht agus comhoibriú i gcoilár ár gcuid taighde. Saintréith an mhic léinn a bheidh sa ghaolmhaireacht dhinimiciúil idir an taighde agus an teagasc. De bhun an taighde a neadú i ndearadh clár, beidh ar chumas na mac léinn a gcuid foghlama a mhúnlú níos fearr ná mar is féidir faoi láthair sna hInstitiúidí. Dá réir sin, beidh ionaid taighde níos comhtháite sa ghníomhaíocht sin.

Beidh mic léinn fochéime nasctha freisin le taighde tionscadal-dírithe agus beidh cláir fochéime nasctha le modúil nuálaíocht-lárnaithe. Gnéithe sainiúla eile de thimpeallacht taighde na hOllscoile a bheidh i ndaonlathú an taighde de bhun na heolaíocht oscailte agus na heolaíochta sluaifhoinsithe. Tarraingeoimid níos mó freisin ar ár dtaighde fairsing ar an teagasc agus ar an bhfoghlaim chun bonn eolais a chur faoinár gcleachtas i ndearadh agus i seachadadh an churaclaim.

Cothóidh an OT cuntas teiste na nInstitiúidí i gcónaí agus forbrófar é sin i ndáil leis an gcur chuige mac léinn-lárnach ar bhealach eile – is é sin a mhéad a bhraitheann na mic léinn go bhfuil nasc idir iad agus an fhoireann agus go bhfuil an fhoireann ag tacú leo. Tá a fhios maith againn go mbíonn go leor dúshlán nua roimh mhic léinn agus go dteastaíonn tacaíocht uathu chun iad a shárú. Cé go dtabharfaidh forbairt ár gcumas teagaisc agus taighde ár ndúshlán ar go leor bealaí, glacfaimid céimeanna comhfhiosacha agus d'aon ghnó chun braistint an phobail agus na coláisteachta atá ann idir an fhoireann agus na mic léinn a choinneáil. Chun é sin a dhéanamh, déanfar cur chuige aonadach, i measc cineálacha cur chuige eile, a chur i bhfeidhm i leith na hOllscolaíochta, rud a chiallóidh, go bunúsach, go mbeidh mac léinn in aon cheann de champais na hollscoile ilchampas ina mhac léinn ar gach campas agus go spreagtar braistint mhór an chómhuintearais i measc na mac léinn. “Is mac léinn é mac léinn” ár eochairphrionsabal, is cuma an modh, an suíomh nó a gcúlra.

Tá fúinn timpeallacht a sholáthar laistigh den Ollscoil a thacaíonn le héagsúlacht agus le comhionannas deiseanna agus a chothaíonn luachanna na haigne oscailte agus na cruthaitheachta i saol pearsanta agus gairmiúil ár mball foirne agus ár mac léinn. Cuirfidh an Ollscoil na deiseanna forbartha gairmiúla ar fáil don fhoireann a bheidh riachtanach dóibh chun slite beatha lántairbhiúla a bheith acu san eagraíocht nua. I gcás na foirne acadúla, táimid meáite ar a chinntiú go dtacófar le gach ball foirne nua tabhairt faoi oiliúint ar mhodhanna teagaisc, agus tabharfar deiseanna d'fhorbairt ghairmiúil sa réimse seo don fhoireann atá ann cheana féin, chomh maith le deiseanna gairme agus dul chun cinn gairme a fheabhsú don fhoireann taighde. Leanfar den bhéim mhór a leagaimid ar fhorbairt gairme d'fhoireann na dáimhe agus taighde, mar aon le tiomantas don fhoireann ghairmiúil, bhainistíochta agus tacaíochta a ndéanfaimid a ról a fheabhsú agus a mhéadú. Is dóigh linn gur rannpháirtithe rithábhachtacha iadsan i nuálacht agus i rath an teagaisc agus an taighde san Ollscoil, agus i ndáil leis an bpobal dinimiciúil foghlama agus nuálachta a chothú.

Tugaimid faoi dhúshlán TUSEI a fhorbairt go muiníneach mar gheall ar an gcuntas teiste 50 bliain atá ag na hInstitiúidí i ndáil leis an teagasc, an taighde agus an tiomantas do mhic léinn agus lena bheith ag obair le comhpháirtithe seachtracha, mar gheall ar ghairmiúlacht agus ar dhíograis na foirne agus mar gheall ar dhíocas agus ar fhuinneamh na mac léinn.

John Moore,
An Cathaoirleach,
Údarás na hInstitiúide
Institiúid Teicneolaíochta Cheatharlach

Jim Moore,
An Cathaoirleach,
Údarás na hInstitiúide
Institiúid Teicneolaíochta Phort Láirge

Context

Irish higher education is undergoing significant restructuring and reconfiguration as the *National Strategy for Higher Education to 2030*³ is implemented. Technological universities form a vital part of this reconfiguration, the purpose of which is to enhance fundamentally the performance of Irish higher education institutions (HEIs) and the overall system against a range of national and international benchmarks. While preserving and cultivating diversity of institutional missions, and ensuring that any new HEIs complement rather than compete with existing provision, the national strategy calls for a state change in higher education in order to deliver national strategic priorities, priorities in education and in economic and social development. In part, this state change is to be achieved through the consolidation of existing Institutes of Technology (IoTs) and the creation of new technological universities (TUs). These new universities will build on the traditions and practices of the IoTs but will be of considerably larger scale and will have demonstrably higher performance in terms of research and innovation.

The technological universities will be fundamental to realising Irish national regional development strategy and will be critical vehicles in regional competitiveness and attractiveness, revitalisation and resilience. The creation of a unitary multi-campus Technological University of South-East Ireland (TUSEI) is specifically referenced in *Project Ireland 2040: National Development Plan 2018-2027*⁴ as critical to a more sustainable region and key to realising the many opportunities for the region and Ireland; the TUs, with their strong focus on the regions in which they are located, are vital instruments of Ireland's spatial and economic strategy, specifically, in the case of the TUSEI, to the Southern Region's *Regional Spatial and Economic Strategy*⁵. The new TUs will make an ever-growing contribution to developing the innovation and labour force to address the needs of Ireland's knowledge economy with specific reference to Ireland's regions and will identify and realise the opportunities that arise from technological disruption and challenge.

1.1 Institutional Context

Ireland created the first Regional Technical Colleges (RTCs) following the 1967 Mulcahy report⁶ which identified the necessity for trained personnel to promote economic development. A driver for this economic expansion was the country's intention to join the expanding European Economic Community in 1973, and to increase Ireland's industrial production to capitalise on membership. In addition, the RTCs had a specific regional remit and were designed to facilitate access to higher education in the regions. The first five RTCs opened in 1970, among them both Carlow RTC and Waterford RTC, with a focus on technical, sub-degree programmes of study primarily in engineering, science and design.

³ Department of Education and Skills (2011) *National Strategy for Higher Education to 2030*, <https://www.education.ie/en/publications/policy-reports/national-strategy-for-higher-education-2030.pdf>

⁴ Department of Public Expenditure and Reform (2018) *National Development Plan 2018-2027*, <https://www.gov.ie/en/policy-information/07e507-national-development-plan-2018-2027/>

⁵ Southern Regional Assembly (2020) *Regional Spatial & Economic Strategy for the Southern Region*, <https://www.southernassembly.ie/regional-planning/rses>

⁶ Steering Committee on Technical Education (1967) *Report to the Minister for Education on Regional Technical Colleges*, <https://assets.gov.ie/24673/b639a1eac94642a0a839ea32bb9a7779.pdf>

Rapidly, and in response to regional demand, both institutions moved to offering honours bachelor degree programmes, then postgraduate programmes, and both expanded the breadth of disciplines available to students. The institutions also began to build a research base and were eventually awarded delegated authority from the Higher Education and Training Awards Council (HETAC) to make awards to PhD level. The RTCs were re-designated as Institutes of Technology in the 1990s. Throughout their development both Waterford Institute of Technology and Institute of Technology Carlow have maintained a regional focus, providing access to higher education and collaborating with a broad range of civic, academic and industry partners.

The Institutes of Technology in Carlow and Waterford have been engaged since 2012 in a process to achieve designation as a Technological University under the Technological Universities Act 2018. The Institutes have been working in partnership under an MoU, firstly from 2012 – 2015 and latterly through a recommencement of activities in 2017.

1.2 Regional Context

Overview

The South-East region of Ireland consists of the counties of Carlow, Kilkenny, South Tipperary, Waterford and Wexford. For planning purposes, the region forms a Strategic Planning Area (SPA) and is a sub-set of the Southern SPA alongside the South-West region (Cork and Kerry) and the Mid-West region (Clare, Limerick, and Tipperary).⁷ The region is recognised as a city region in European terms with Waterford City designated as a national Gateway City and with the other large urban centres of Wexford, Kilkenny, Carlow and Clonmel creating a region of significant critical mass.⁸ Educational provision will need to expand within a decade to cater for the population growth in the region.

Figure 1 Ireland's Regions



Source: Regional Skills Fora, Department of Education and Skills

⁷ South-East Regional Planning Area (SPA) – <http://www.southernassembly.ie/regional-planning/south-east-spa/>

⁸ Department of Business, Enterprise and Innovation (2015) South East region action plan for jobs 2015-2017, <https://enterprise.gov.ie/en/Publications/South-East-Action-Plan-for-Jobs-2015-2017.html>

Figure 2 South-East of Ireland



Source: AIRO, Maynooth University

The South-East region has good quality infrastructure with a regional airport, three commercial seaports, a good road network, and a network of region-wide industry and technology parks. It has a well-developed tourism sector and a range of highly productive and successful exporting firms, both blue-chip FDI and Irish owned companies, especially in the manufacturing and agri-food sectors, pharma/biopharma and medical devices. The region has a growing base of companies involved in a variety of life sciences-related activity, principally, but not exclusively, manufacturing and a growing base of companies involved in international services, and a solid burgeoning of IT-based companies with global reach.

Population

Since 1991, the overall population of Ireland has increased by 35% or by 1.4% annually on average. The South-East region has experienced relatively strong levels of population growth in recent years with a population of 509,500 in Census 2016. Increases in population have typically occurred within, or in close proximity to, the main urban centres (Waterford city in particular), while growth in northern parts of the region reflects the extension of the Dublin commuter belt (into areas of north Carlow and Wexford). Transitional regional and county population growth projections to 2031, published as part of Project 2040, indicate a planned population growth regionally of between 15% and 17% to 2031, as Table 1 shows.

Table 1 Transitional Regional and County Population Projections to 2031

Region and County	2016	2026		2031		Planned Growth	
		Range		Range		Range	
		Lower	Upper	Lower	Upper	Lower	Upper
South-East							
Waterford	116,000	132,000	135,000	137,000	144,000	18%	24%
Wexford	149,000	163,000	166,000	169,000	172,500	13%	16%
Kilkenny	99,000	108,000	110,000	112,000	114,500	13%	16%
Tipperary SR	88,500	96,000	98,000	99,500	102,000	12%	15%
Carlow	57,000	62,000	63,000	64,000	65,000	12%	14%
Subtotal	509,500	561,000	572,000	581,500	598,500	14%	17%

Source: Implementation Roadmap for the National Planning Framework⁹

Economy

The economy of the South-East region is relatively mixed. The Ireland South-East Development Office has identified the regional economic strengths. These include: Tourism, Construction, Food and Drink, Engineering and Manufacturing, Medical Technologies, Pharma/ bio pharma, Business Services, ICT, Financial Services and Creative and Design, all of which are aligned with the educational and innovation focus of TUSEI. In terms of the internationally-trading proportion of the region's economy, indigenous internationally-trading companies (supported by Enterprise Ireland) employed 19,475 and multinational companies (supported by IDA Ireland) employed 12,765 in 2019. Relative to total employment in the South-East in 2019, this internationally-trading base accounts for approximately 16% of total employment. It is also important to highlight the level of innovation and start-up activity in the region, with a significant number of early-stage companies, many of which are connected to the two Institutes.¹⁰

The World Economic Forum "Future of Jobs" report highlights the need to "build a workforce with future proof skills".¹¹ The report focuses on youth demographics and technological change as key drivers of such "future proofing", two drivers already available in the South-East. The role and harnessing of "smart specialisation" in the conceptualisation of future employment paths and opportunities is crucial.¹² The *South-East Regional Enterprise Plan to 2020* describes the requirement for more cohesive and co-ordinated approaches at regional level to addressing employment creation challenges and identifies a range of domains within which the region has strong foundations for future growth. (See also section 6.1)

Participation in Education

Relative to other regions in Ireland, the South-East has lower third level education attainment (37% versus national average of 47%)¹³ as well as a relatively high proportion of students who leave the region for third level education. However, it is an improving situation – between 2009 and 2017, the share of the population of the South-East aged 25-64 and with a third level qualification—inclusive

⁹ Implementation Roadmap for the National Planning Framework, 2018, <https://npf.ie/wp-content/uploads/NPF-Implementation-Roadmap.pdf> P.14

¹⁰ Department of Business, Enterprise and Innovation (2019) Regional Enterprise Plan to 2020: SOUTH-EAST, <https://enterprise.gov.ie/en/Publications/Publication-files/South-East-Regional-Enterprise-Plan-to-2020.pdf>

¹¹ World Economic Forum (2020) Future of Jobs Report 2020, <https://www.weforum.org/reports/the-future-of-jobs-report-2020>

¹² European Commission (2014) National/regional innovation strategies for smart specialisation (RIS3), https://ec.europa.eu/regional_policy/sources/docgener/informat/2014/smart_specialisation_en.pdf

¹³ Central Statistics Office, <https://www.cso.ie/en/index.html>

of higher certificates, ordinary and honours bachelor's degrees, and postgraduate qualifications—rose from 35% to 46%. The share with postgraduate degrees increased from 5% to 10% over the period. This growth occurred alongside a decline in the share of the population with primary level educational attainment only, where this fell from 12% to 6%, and alongside a decline in the share of the population with a Post Leaving Certificate (PLC) qualification, where this fell from 16% to 10%. Less than 50% of school leavers continue to higher education and of those that do continue, most chose to study outside of the region.¹⁴ Over 6,000 students from the South-East attend one of the applicant Institutes while a significantly larger number of students, in excess of 14,000, choose to study outside the region. The bulk of these students attend universities (10,078) or colleges (889) outside the region with a minority (3,128) attending an Institute of Technology.

Regional Development Policy Framework

The *Project Ireland 2040: National Planning Framework* highlights the transformational potential of the proposed TU for the South-East region – the first time a full university will be located in the region. The creation of a technological university is referenced as critical to a more sustainable region in the *Project Ireland 2040: National Development Plan 2018- 2027* (p.52) and again throughout the Southern Regional Assembly's *Regional Spatial and Economic Strategy*. The University will be a vital means by which the goals and ambitions in the national plan and the regional plans are realised.

National Strategic Outcome 5 from *Project Ireland 2040: National Development Plan 2018-2027* is to build “a strong economy, supported by Enterprise, Innovation and Skills”. This is described by the report authors as comprising “a competitive, innovative and resilient enterprise base (is) essential to provide the jobs and employment opportunities for people to live and prosper in all regions.” The plan further contains an objective to “generate the additional capacity necessary on a system-wide basis to support the projected increase in enrolments and to be fully responsive to skills needs at a regional and national level, including life-long learning” (p.64). This is particularly applicable to our Institutes' commitment to a multi-campus approach to higher education through various modes of delivery.

This application emphasises the Institutes' position that we are agents of societal change through education and that the implementation of our mission has a positive impact on the civic, social, environmental and economic life of our regions. This is congruent with the principal stated purpose of the Regional Spatial and Economic Strategy (RSES) as “to support the implementation of the emerging *Project Ireland 2040: National Development Plan 2018-2027* and the economic policies and objectives of the Government by providing a long-term strategic planning and economic framework for the development of the regions.” The Institutes welcome the commitment in the RSES to support TUSEI. The document acknowledges that the lack of a university in the South-East puts our Strategic Planning Area at a disadvantage and hinders the potential for new business formation. IBEC in its review of the National Development Plan (NDP) emphasised the need for accelerated investment in education infrastructure in the region to support local industry in responding to the challenges post-COVID-19 and BREXIT through greater access to education, research and innovation, and highly skilled graduates.

¹⁴ Central Statistics Office, (2016) Census 2016 Reports, <https://www.cso.ie/en/census/census2016reports/>

Other policies that inform and support the formation of TUSEI, include:

- The vision for national enterprise policy as set out in *Enterprise 2025: Innovative, Agile, Connected*¹⁵ is to achieve sustainable full employment; bring unemployment rates down to within 1% of the national average in all regions; and, achieve regional productivity convergence so all regions are within 10% of the average outside Dublin and with international comparators. The Institutes' hinterland, across the South-East, and neighbouring regions, have a strong industrial base which requires a strong pipeline of graduates, particularly in engineering, science and ICT disciplines.
- The *South-East Regional Enterprise Plan to 2020*, which focuses on deepening and expanding various enablers towards achieving five strategic objectives: enhancing the environment for enterprise activity and company growth; establishing the region as an investment centre of choice; developing a regional engagement strategy; helping to develop the South-East as a "learning region" with education, knowledge generation and exchange, and innovation as central activities; and developing the regional tourism offering. The application is also cognisant of the regional enterprise plans for the midlands / Mid-East regions recognising the importance of those regions to the fulfilment of the university mission.¹⁶
- The *Action Plan for Rural Development, Realising our Rural Potential*,¹⁷ which highlights a number of strategic aims of direct relevance to TUSEI, including the empowerment of local communities, supporting rural enterprise through skills provision and education, and enhancing "culture and creativity in rural Ireland through the establishment of culture teams and creativity hubs". It is clear that TUSEI will be expected to take such thought leadership roles as are envisaged in this plan. The development of Technological Universities in supporting regional growth and regional economic development is also acknowledged in the more recent report *Our Rural Future Rural Development Policy 2021-2025*.¹⁸
- The *Twenty-Year Strategy for the Irish Language 2010-2030*¹⁹ which makes reference to the necessity for continued support by educational institutions to Irish-language speaking communities, including the Gaeltacht in An Rinn, Co. Waterford, which is a mark of regional distinctiveness.

1.3 The TU and the Region

Policy makers, residents, enterprise and civic society across the South-East have a clear expectation that the Technological University will have a material impact on regional culture, society and the economy. The University is expected to be an educational platform considerably enhanced from the existing IoTs. It is expected to be instrumental in facilitating increased participation in education across the region and in this way contribute to enhancing quality of life as well as career opportunities. It is also expected, through its enhanced role as an innovation enabler and catalyst, to drive the development of the regional knowledge economy, thus increasing regional prosperity.

¹⁵ Department of Jobs, Enterprise and Innovation (2015) *Enterprise 2025: Innovative, Agile, Connected: Ireland's National Enterprise Policy 2015-2025*, <https://enterprise.gov.ie/en/Publications/Enterprise-2025.html>

¹⁶ Department of Enterprise, Trade and Employment, *Midlands Regional Enterprise Plan to 2020* <https://enterprise.gov.ie/en/Publications/Publication-files/Midlands-Regional-Enterprise-Plan-to-2020.pdf>
Department of Enterprise, Trade and Employment, *Mid-East Regional Enterprise Plan to 2020*, <https://enterprise.gov.ie/en/Publications/Mid-East-Regional-Enterprise-Plan-to-2020.html>

¹⁷ Department of Rural and Community Development (2018) *Realising our Rural Potential - Action Plan for Rural Development*, <https://www.gov.ie/en/publication/091dba-realising-our-rural-potential-action-plan-for-rural-development/>

¹⁸ Department of Rural and Community Development (2021) *Our Rural Future Rural Development Policy 2021-2025* <https://www.gov.ie/en/publication/4c236-our-rural-future-vision-and-policy-context/#>

¹⁹ Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (2020) *20-Year Strategy for the Irish Language*, <https://www.gov.ie/en/policy-information/2ea63-20-year-strategy-for-the-irish-language/>

Differentiation

TUSEI will represent a significant step change in higher education provision in the region and nationally. The University will strongly differentiate itself from existing provision—either institutes of technology (IOTs) or established universities—in some key ways, while building on the respective institutional histories and the strengths of both partner Institutes. Indeed, the objective of TUSEI is to combine and leverage the ideas and resources of the two existing institutes, creating a unique and distinctive institution of higher learning, offering wide-ranging opportunities to all categories of learners, generating new knowledge through research and innovation and addressing individual, industrial, economic and social challenges by collaborating with a broad range of civic, academic and industry partners.

In terms of performance, the University will demonstrate significant difference from the provision of existing institutes of technology; at the same time, it will have a substantially different profile from existing universities. While it is clear that TUSEI is expected to retain many of the traditions and characteristics of the Institutes, it will function in a manner that is demonstrably of international university standards, particularly with regard to programmes of study (with a strong emphasis on degree and postgraduate provision), research and knowledge transfer, and staff expertise. This differentiation will free TUSEI to make a unique contribution to the national higher education landscape with greater capacity and capability than currently exists to deliver on national educational objectives. The University will provide an integrated and collaborative model of higher education across the counties of the South-East. This delivery model is based on almost fifty years of highly successful provision built on a rigorous quality assurance and enhancement system across teaching, learning and research activities. Technological University designation will greatly enhance existing provision, release new social, economic, and civic opportunities while addressing fundamental social challenges through teaching and research.

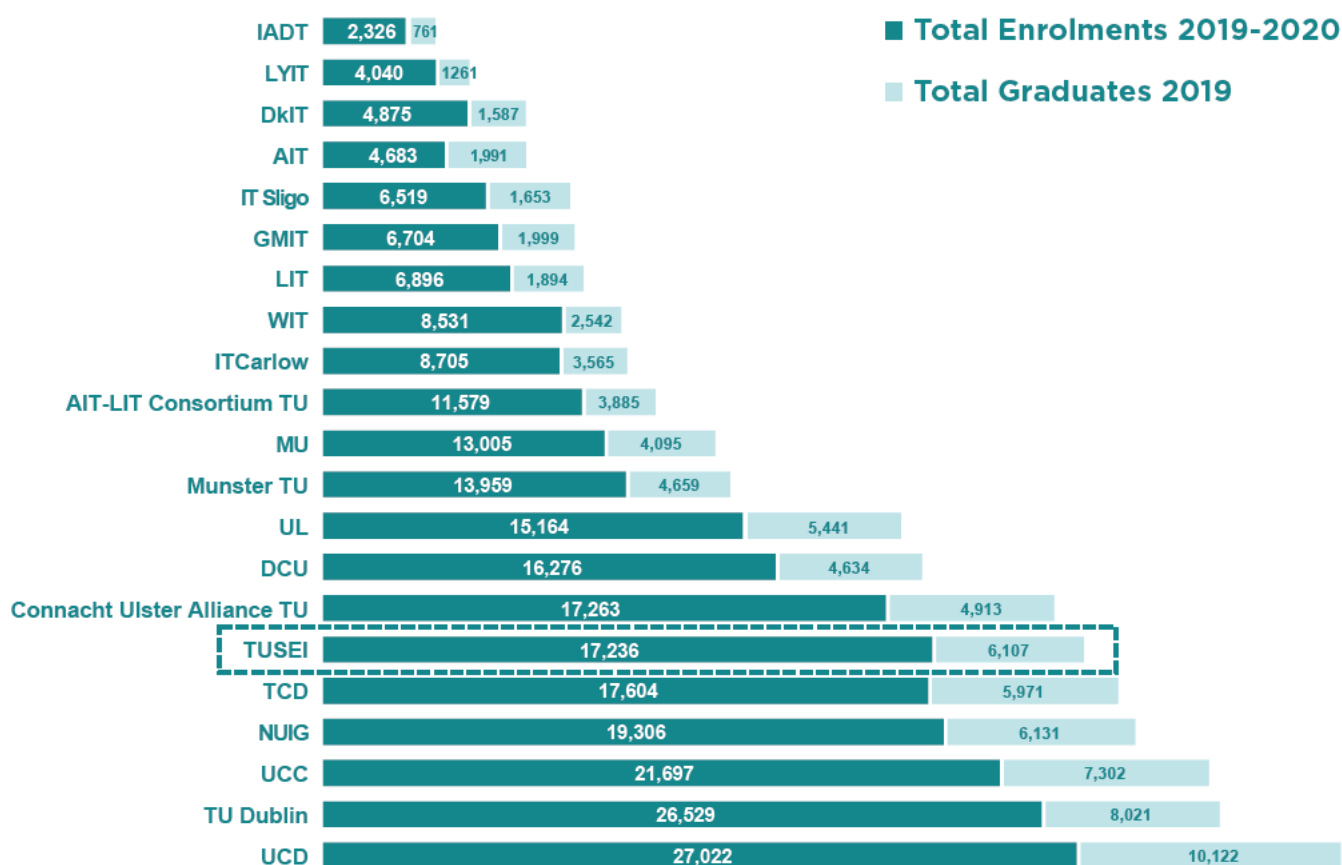
The learner community of the partner institutions combined for the 2019/20 academic year was 18,385 students with approximately 18,000 staff. 10,099 of these students are registered on a programme that leads to an award to at least honours bachelor degree level. The distribution of these students across levels on the National Framework of Qualifications (NFQ) is detailed in Table 1 in the Appendix of this document.

Participation

TUSEI will be the principal third level service provider charged with supporting the economic, social, cultural and environmental development of the South-East region. In part it will do this by addressing the outward migration of students from the region. Having a university in the South-East, with the standards of education and research envisaged by TUSEI, and at scale, will encourage more students to engage with, and study in, the region which in turn will increase the region's human capital and economic growth. In addition, it is also anticipated that the presence of a technological university²⁰ will increase the level of student migration into the region. Figure 3 demonstrates the potential scale of the new technological university.

²⁰ Source: Central Statistics Office Labour Force Survey, Central Statistics Office Regional Accounts. Note that pre-COVID-19 Q1 2020 deemed most appropriate recent unemployment data.

Figure 3 TUSEI Enrolments and Graduates in Irish HE Landscape, 2019/2020²¹



Source: HEA²²

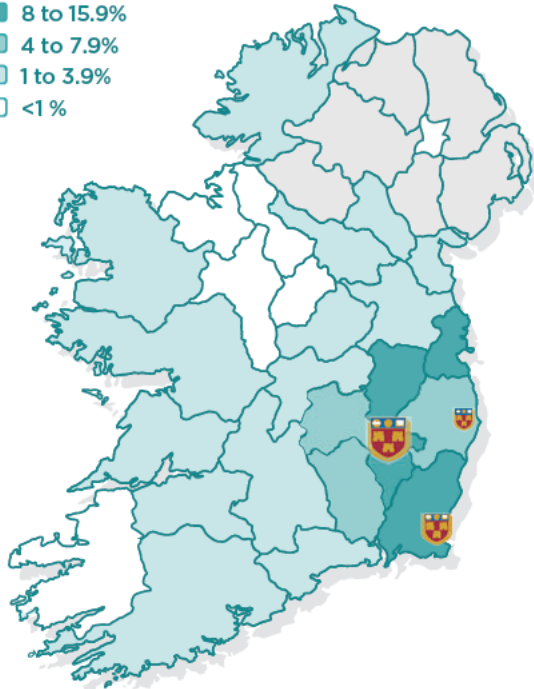
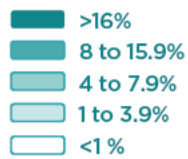
The institutes currently (and the TU in the future) also draw their students (currently totalling approximately 18,500) from a number of other counties, in particular Kildare, Cork, Laois and Wicklow and have important strategic relationships with business and other entities in these counties and nationwide.

²¹ Total student enrolments 2019/2020 and total graduates 2019 across the technological and university sectors including planned technological universities and their constituent institutes of technology. Note: HEA enrolment and graduate data excludes certain categories of students such as apprentices and incoming Erasmus students.

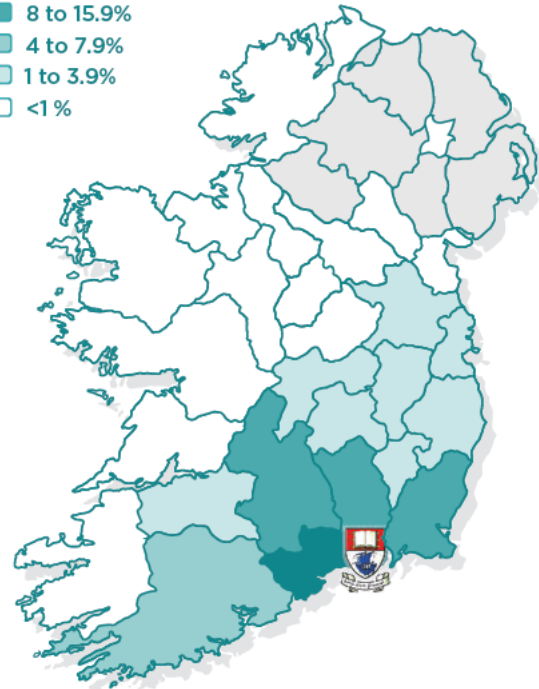
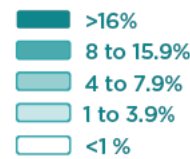
²² Higher Education Authority, <https://hea.ie/statistics/data-for-download-and-visualisations/data-for-download/2019-20-enrolment-data-for-download/> and <https://hea.ie/statistics/data-for-download-and-visualisations/data-for-download/2018-2019-graduates-by-institute-course-level-field-of-study-broad-award-type-gender-and-age/>

Figure 4 Domiciliary Origin For Total Enrolments (ROI excluding apprentices)

Institute of Technology Carlow 2019-2020



Waterford Institute of Technology 2019-2020



Source Higher Education Authority, www.hea.ie

The TUSEI partner institutions currently operate across a number of campuses including in Carlow, Waterford (over five sites), Wexford, and Wicklow. Additional capacity is planned for the Carlow and Waterford campuses with significant capital investment in buildings for Science and Engineering education in the first instance, while an extended ArcLabs Research and Innovation facility has recently been completed. In addition, IT Carlow (ITC) carried out a review of accommodation options and made a successful case to the Department of Education and Skills and the Higher Education Authority (HEA) for a new purpose-built campus which will replace existing buildings in Wexford. TUSEI will also collaborate with other higher education providers in the region, specifically with Limerick Institute of Technology, which has a presence in Clonmel, and Carlow College St Patricks, in pursuit of regional impact.

Relatedly, Kilkenny County Council is actively developing a proposal to offer a higher education facility as part of an urban renewal project at the heart of its historic city in the Abbey Quarter. The objective of the Council is that Kilkenny would form an integral part of TUSEI and the Abbey Quarter would become home to a campus/facility of TUSEI.²³

²³ Kilkenny County Council (2015) Masterplan for Abbey Creative Quarter, <https://www.kilkennycoco.ie/eng/Services/Planning/Abbey-Quarter-Brewery-site/>

Innovation

With regard to innovation, the ambition for Ireland, and the South-East in particular, is to be at the leading edge of influencing how technology is affecting and shaping our lives and redefining economic, civic, cultural and natural environments in accordance with our values, ethics and moral compass. Building on existing activity, TUSEI will play a leading role in facilitating the achievement of this ambition.

TUSEI, in collaboration with government and private sector actors will play a critical role in identifying the “right domain of future specialisation and fixing the many coordination failures that can prevent emerging trends from becoming real and solid drivers for regional economic growth”.²⁴ The drive regionally towards smart specialisation will involve a structural evolution of the whole regional economy and a novel, place-based matching of existing scientific and technical knowledge with the industrial resources and capabilities, as well as supporting infrastructures and governance of a specific region in a way that leads to new directions, new technologies, new industries, new socially-inclusive communities, and sustainable regional economic growth. TUSEI will be instrumental in realising this level of innovation and change in the South-East.

As the region transitions to more knowledge-intensive industries and a knowledge-based economy, its prosperity is contingent upon a vibrant, accessible and diversified higher and further education system. In this context, TUSEI will play a critical role, particularly in a number of key respects:

1. The South-East region has a solid and developing industrial base which requires a strong pipeline of graduates, particularly in engineering, science and ICT disciplines. However, the numbers of graduates in engineering, science and ICT from within the region are not sufficient to address the region’s needs. Expanding the portfolio and the provision of high-quality programmes of study will greatly enhance the development of that graduate pipeline.
2. Reshaping the curricula and developing a more flexible and responsive curricula delivery process in TUSEI will both increase the region’s human capital and more effectively meet the region’s industrial and societal long-term needs.
3. As TUSEI builds on and further expands its research capacity, its research centres, through their connection to industry and agriculture, are well placed to act as catalysts in the creation of a more highly skilled, and subsequently more highly paid, labour force in the region that will attract more innovative companies.

Research and innovation infrastructure and capacity within the HEI sector in the South-East has benefited over the last five years from investment through Enterprise Ireland’s Technology Gateway Programmes, Innovation Vouchers and Partnerships, the Science Foundation Ireland (SFI) Infrastructures programme, participation in SFI Centres programme and EU research funding, and is well-connected to the region’s industry.

The two partner Institutes play a critical role in driving regional innovation and development and can demonstrate a nationally and internationally significant track record and profile in Research Development and Innovation (RDI) and Technology Transfer. Both partner institutes have continued to prioritise investment in quality and capacity enhancements to develop intellectual capital, new programmes, RDI activity, and partnerships as well as physical and virtual infrastructure. They have complementary strengths in enterprise development through the four Enterprise Ireland-funded Technology Gateways (three in Waterford IT and one in IT Carlow) and other activities, a combined

²⁴ Foray, D., David, P.A., Hall, B.H., (2011), Smart Specialisation: From academic idea to political instrument, the surprising career of a concept and the difficulties involved in its implementation, METI Working paper 2011-001, College of Management of Technology, Lausanne (p.14)

research postgraduate enrolment that meets the legislative criteria for TU designation of 4%, and a significant body of taught postgraduate students. This research effort and industry engagement is reflected in all the standard research, bibliometric and knowledge transfer metrics.

More recently, the policy and operational context of TUSEI has been substantially impacted by COVID-19 and BREXIT, which together present opportunities and challenges for the University. Research by the ESRI has identified that 41% of employment in the South-East is in sectors vulnerable or highly vulnerable to the impacts of BREXIT, while 50% of employment in the region is in sectors vulnerable, or highly vulnerable, to the economic impacts of COVID-19. While COVID-19 continues to present challenges, there are opportunities too which are dealt with later in this document.

Compared to the historical role of Regional Technical Colleges in supporting labour force development, and in contrast to the established universities which have no such legislative function, the Technological Universities Act 2018 envisages a significantly enhanced role for TUs with regard to engagement. The legislation requires that Technological Universities “support entrepreneurship, enterprise development and innovation in business, enterprise and the professions through teaching and the conduct of research and through effective transfer to those and other sectors of knowledge arising from that research”.²⁵ The partner institutions have distinguished themselves by the nature and quality of their responsiveness to date in support of innovation, particularly with a regional focus. While historically positioned as skills-level training providers, the institutes of technology have evolved to being critical entities in local and regional innovation ecosystems and highly engaged institutions across multiple levels. The positioning of the institutes in this regard forms a critical pillar of the orientation of the University and is described in detail later in this document.

The partner institutions, with their well-developed enterprise and incubation centres and associated enterprise support programmes, have a strong track record of innovation creation, enterprise support and business development. Across multiple levels—programme design, programme accessibility and delivery, research and knowledge transfer—the partner institutions have shown a responsiveness to enterprise and social needs particularly within the region. The Institutes have responded positively and have been proactive in addressing the needs of industry partners for up skilling, and training and education across all levels. The Institutes have also developed systems that allow for easy access to the curriculum, to programme design, to research and other expertise, and to capital resources. In this way, the Institutes have already become critical parts of the enterprise ecosystem in the South-East. This combined experience and expertise will position TUSEI on a clear trajectory to achieve its goals in an ever-changing, knowledge- oriented dynamic regional economic domain.

The presence within the Institutes of a strong and vibrant knowledge creation and generation capability has allowed them evolve to a point where they exercise leadership regionally; in this sense, the current Institutes do not merely respond to regional commercial, industrial and social demand but proactively collaborate with other regional and national stakeholders to shape the future regional economy, culture and society. The Institutes have become critical to job creation, social cohesion, and cultural development driven by innovation and knowledge transfer, which will be further enhanced and developed in TUSEI, which will greatly complement the roles of other State agencies in driving regional innovation.

²⁵ Source: Central Statistics Office Labour Force Survey, Central Statistics Office Regional Accounts. Note that pre-COVID-19 Q1 2020 deemed most appropriate recent unemployment data.
Technological Universities Act 2018, No.3/2018, <http://www.irishstatutebook.ie/eli/2018/act/3/enacted/en/html>

Criteria

2.1 Introduction

This chapter sets out the performance of the consortium against the published criteria for Technological University designation. The chapter demonstrates that in all cases the consortium meets or exceeds the criteria and thus makes the case for designation.

The eligibility criteria for designation as a Technological University are outlined in the Technological Universities Act 2018. Sections 2.2 and 2.3 present the quantitative analysis of the applicant data and these sections examine the following:

- Percentage of students who are: defined as research students; undertaking flexible programmes; registered on programmes designed and delivered with stakeholders; mature students;
- Capacity, as a technological university, of a merged entity, to increase the numbers of research students to at least 7% over a decade;
- Percentage of staff engaged in the provision of a programme that leads to an award at level 8 or above who are themselves qualified to levels 9 and 10;
- Capacity, as a technological university of a merged entity, to increase the numbers of those staff described above to 65% over a decade;
- Percentage of staff who are research active;
- Percentage of staff who are supervising doctorate students.

Section 2.4 and 2.5 provides data on research activity and other eligibility criteria:

- Range of research and doctoral degree opportunities;
- Quality and regional impact of innovation and research;
- Alignment of level 10 doctoral education with Qualifications and Quality Assurance Authority of Ireland (Quality and Qualifications Ireland) policy;
- Capacity, as a technological university, of a merged entity, to increase the numbers of fields of doctoral degree education to at least 5;
- Capacity of the applicant institutes to perform the functions of a technological university in terms of governance, academic, administrative and management structures, engagement and collaboration, quality assurance, procedures to respond to regional needs, and the provision of international opportunities in terms of student and staff mobility, research and programme provision;
- Current and potential capacity to develop and promote strong social and cultural links, and links supporting creativity with the community

2.2 Student Profile Criteria

The consortium, based on March 2020 HEA student data, meets the criteria for designation relating to the profile of the student body of the Technological University, as established in Section 36 of the Technological Universities Act 2018, as follows:

LEGISLATIVE CRITERIA	HOW TUSEI MEETS THE CRITERIA
(a) of the students of the applicant institutes registered on a programme that leads to an award to at least honours bachelor degree level—	The total number of students is 18,385 of whom 10,099 are registered on programmes leading to an award of at least honours bachelor degree.
(i) at least 4% are research students registered on a programme which leads to an award to at least masters degree level, and	Of 10,099 students 519 or 5.14%, are research students.
(ii) at least 30% fall within one or more than one of the following classes of students:	The 30% threshold is exceeded for sections (II) and (III)
(I) students who are registered on a programme that is provided on a flexible basis, such as by means of part-time, online or distance learning;	Of 10,099 students, 1,444 or 14.3%, are registered on a programme that is provided on a flexible basis.
(II) students who are registered on a programme that has been designed, and is being delivered, with the involvement (which shall be construed in accordance with subsection (2)(b)), of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located;	Of 10,099 students, 3,407 or 33.7% are registered on a programme with professional, statutory or regulatory accreditation/approval
(III) students who are not less than 23 years of age;	Of 10,099 students, 3,674 or 36.4%, are not less than 23 years of age
(b) the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university to increase within 10 years of the date of the making of an order under section 36, from at least 4 per cent to at least 7 per cent, the proportion of their research students referred to in paragraph (a)(i)	TUSEI has a detailed plan to meet the research capacity requirement to increase the proportion of research students referred to in paragraph (a) (i), from the current 5.14% to at least 7% within 10 years of the date of the making of an order under section 36. See Chapter 5.

2.3 Staff Profile Criteria

The consortium, based on December 2020 staff data and January 2021 postgraduate data, meets the criteria for designation relating to the staff profile criteria of the Technological University, as established in Section 36 of the Technological Universities Act 2018, as follows:

LEGISLATIVE CRITERIA	HOW TUSEI MEETS THE CRITERIA
(c) of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level—	679 full-time academic TUSEI staff are so categorised
(i) at least 90% hold a masters degree or doctoral degree,	93.2% (633) hold a masters or doctoral degree
(ii) at least 45% hold—	
(I) a doctoral degree, or	51.1% (347) hold a doctoral degree
(II) subject to subparagraph (iii), a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably be viewed by the advisory panel as equivalent to a doctoral degree, and	n/a
(iii) not more than 10% hold only the qualifications referred to in subparagraph (ii)(II);	n/a
(d) the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university, to increase, within 10 years of the date of the making of an order under section 36, from at least 45% to at least 65%, the proportion of their full-time academic staff referred to in paragraph (c)(ii);	TUSEI has a detailed plan to increase, by 2030, the percentage of full-time academic staff who hold a doctoral degree (or equivalent) to 65%. This is reinforced by recruitment, retention, undergraduate and research growth targets and staff undertaking doctoral studies. See Chapter 5.
(e) of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80% hold a doctoral degree—	89.3% of the full-time TUSEI academic staff engaged in the provision of a programme that leads to an award at doctoral degree level are both research active and themselves hold a doctoral degree
(i) the provision of a programme that leads to an award at doctoral degree level, and	
(ii) the conduct of research;	
(f) each of the full-time academic staff of the applicant institutes engaged in the supervision of students registered on a programme that leads to an award to doctoral degree level—	
(i) holds—	

(I) a doctoral degree, or	100% of the full-time TUSEI academic staff supervising students registered on a programme that leads to an award to doctoral degree themselves hold a doctoral degree
(II) a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably and	n/a
(ii) has a record of continued conduct of research in an area relevant to the programme;	100% of the full-time TUSEI academic staff supervising students registered on a programme that leads to an award to doctoral degree are research active

2.4 Research Criteria

The consortium meets the research related criteria for designation as a Technological University, as established in Section 36 of the Technological Universities Act 2018, as follows:

LEGISLATIVE CRITERIA	HOW TUSEI MEETS THE CRITERIA
(g) in respect of not less than 3 fields of education—	<p>Information and Communications Technologies (06)</p> <p>Natural Sciences, Math and Statistics (05)</p> <p>Engineering, Manufacturing and Construction (07)</p> <p>Business, Administration and Law (04)</p> <p>Further information provided in Chapter 5.</p>
(i) the applicant institutes provide programmes that lead to awards to doctoral degree level, and	Programmes that lead to awards to doctoral degree level are provided in these four fields
(ii) the academic staff and students of the applicant institutes conduct research;	Academic staff and students conduct research in these four fields of education
(h) in relation to a programme referred to in paragraph (g), the applicant institutes demonstrate, to the satisfaction of the advisory panel—	

that they carry out innovation activity and conduct research to a high standard, and that the innovation and research has positive social and economic effects on business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located;	See Chapter 5, 6.
(i) all programmes provided by the applicant institutes that lead to an award to doctoral degree level comply with any policy relating to doctoral education as may be agreed from time to time between An tÚdarás and the Qualifications and Quality Assurance Authority of Ireland following consultation with bodies representing the interests of an institute, a technological university or a university specified in paragraphs (a) to (d) of section 4(1) of the Universities Act 1997;	Both partner institutes in TUSEI are compliant with associated procedures relating to quality assurance regarding the provision and award of doctoral degrees as required by Quality and Qualifications Ireland. Transitional arrangements are provided in Section 61 (1) (2) and sub-section 63,64 of the Technological Universities Act 2018
(j) the applicant institutes have a plan that demonstrates to the satisfaction of the advisory panel that they would have capacity, as a technological university to increase within 5 years of the date of the making of an order under section 36, from at least 3 to at least 5, the fields of education referred to in paragraph (g);	Health and Welfare (09) Further information provided in Chapter 5.

2.5 Engagement, Governance and Internationalisation

The consortium meets the criteria for designation relating to Engagement, Governance and Internationalisation of the Technological University, as established in Section 36 of the Technological Universities Act 2018, as follows:

LEGISLATIVE CRITERIA	HOW TUSEI MEETS THE CRITERIA
(k) the applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time they apply under section 29 for an order under section 36, the capacity to effectively perform the functions of a technological university and in particular demonstrate—	
(i) that they have integrated, coherent and effective governance structures in place concerning academic, administrative and management matters,	TUSEI's governance structure will consist of a unitary Governing Body and a unitary Academic Council which will ensure integrated, coherent and effective governance of academic, administrative and management matters. See Chapter 8.

(ii) that they have strong links with business, enterprise, the professions, the community, local interests and other stakeholders in the region in which the campuses of the applicant institutes are located,	Both partner Institutes have formal arrangements with various regional and national bodies in these areas. The composition of the Governing Body of TUSEI will reflect this regional connectivity. Formal arrangements will exist institutionally to guarantee regional interests are addressed.
(iii) that they have, under section 28 of the Act of 2012, established procedures in writing for quality assurance in relation to which—	
(I) no notice has been furnished by the Qualifications and Quality Assurance Authority of Ireland under section 36(1) of the Act of 2012, Or	No such notice has been furnished by the QQI under Section 36(1) of the Qualifications and Quality Assurance Authority of Ireland Act (2012) to the applicant institutes
(II) approval has not been withdrawn under section 36 of that Act,	
(iv) that they develop, and have procedures in place to further develop programmes that respond to the needs of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located,	TUSEI will develop programmes under the direction of its Governing Body and Academic Council and will ensure that they respond to the needs of business, enterprise, the professions and other stakeholders in the region in the campuses of the applicant institutes are located. See Chapter 4, 5, 6
(v) that they—	
(I) provide opportunities for staff and students of the applicant institutes to teach, learn or conduct research at institutions that provide higher education outside the State, or to obtain relevant work experience outside the State,	Partner Institutes have international agreements in place offering such opportunities.
(II) provide opportunities for staff and students of institutions that provide higher education outside the State to teach, learn or conduct research at the applicant institutes, and	Partner Institutes have international agreements in place offering such opportunities.
(III) collaborate with institutions that provide higher education outside the State, including on joint research projects and for the purpose of provision of programmes;	Partner institutes have extensive evidence of collaboration with academic institutions nationally and internationally.
(I) that they develop and promote and if an order is made under section 36 have procedures in place to further develop and promote, as a technological university, strong social and cultural links, and links supporting creativity, between the technological university and the community in the region in which the campuses of the technological university will be located.	See Chapter 6, 8.

Vision, Mission, Values

Since the establishment of European universities in the twelfth century the role of the institution has changed and adapted as society's needs changed and evolved. The centrality of the generation, dissemination and sharing of knowledge continues but in new ways requiring new forms of literacy and critical analysis. The university is no longer a place only for the training and education of the elite of society but a major agent in the democratisation of knowledge and innovation. TUSEI will continue to democratise knowledge through the universality of its mission.

TUSEI is not only in the region but is of the region and while region-defined it will not be region constrained. As outlined earlier, the applicant institutions will create a university of scale to act as a catalyst for economic, social, cultural and environmental initiatives with regional, national and international impact. The University will achieve this through the scaling of the existing ecosystem by combining the intellectual, physical, and digital assets of the University for the benefit of all stakeholders. TUSEI will deliver more engaged teaching and learning, new approaches to research and knowledge transfer and deliver new public and community service practices recognising our national culture and societal needs. The University will play a role in the development of the region and the nation that is not solely economic but equally social, cultural and environmental. This will be demonstrated through the University's learners, alumni, faculty and professional services.

The Institute of Technology sector has always been attuned to industry needs and demographic change and has driven growth in Ireland's success in becoming a knowledge-based economy. In one short generation we have moved from a position of relatively low and structurally-determined participation (10% of school leavers progressing to higher education) to mass participation (c. 60% of school leavers). Irish higher education has already undergone one transformation and the prospect of a new type of institution, the Technological University, presents exciting possibilities. The new institution will offer complementarity and change. It will be agile and adaptable and will anticipate and respond to regional and national need.

The Institute of Technology Carlow and Waterford Institute of Technology have been on a shared journey towards Technological University designation since January 2012. Over this time, both Institutes continued to prioritise investment in quality and capacity enhancements across, inter alia, intellectual capital, new programmes and RDI, partnerships and coalitions, physical and virtual infrastructure. Both Institutes are values-led organisations that put the quality of the learner experience centre-stage, supported by a commitment to knowledge development and the achievement of excellence, to creativity and innovation, and to connectivity with our regions and the world.

The size and multi-campus configuration of TUSEI will see the development of a university grounded on connectivity and regional and international distribution. This model of close structural engagement affords an opportunity to build public confidence in the system and to reinforce public support for the essential core values of higher education which remain those espoused by Humboldt and Newman. The learning community is a microcosm of the innovation society. This collaborative dynamic will be the essence of the TUSEI. The future success of TUSEI will be determined by an ability and a willingness to adapt, survive and deliver beyond the confines of the traditional model of campus and faculty and the defining hallmark of TUSEI will be the manner in which it transforms the region into an organic “campus” of collaborative learning, research and innovation. TUSEI will be known for this innovative approach to knowledge creation and communication, for its openness and universal accessibility, the high quality of its programmes and for its transformative impact.

University designation will provide TUSEI with the ability to provide greater alignment with business and industry in the region. TUSEI will be a “connected” university, offering industry, social and community partners multiple modes of engagement in programme development and provision, research partnerships and knowledge development. TUSEI with presence across the region will facilitate a new regional identity and communal bond and facilitate the drive for growth in a coherent and supportive way across the region.

3.1 Vision

The Technological University of South-East Ireland will be
a **leading** European Technological University
recognised for regional **connectedness** and global **impact**
with a **student-centred** philosophy
transforming lives and achieving **excellence**
through **collaborative** approaches

We will:

- Be a world-class new university that is recognised for our innovative, dynamic and engaged approach to partnership working with learners, industry, business and the community;
- Pursue excellence in learning, teaching and research to develop our learners’ skills, attributes and knowledge in order for them to become global citizens who are connected to their community and have an international outlook;
- Be technologically cutting-edge by leveraging the use of technology to break through the restraints of time and space to support learning, teaching and engagement in a multi-campus, globally-connected organisation;

- Offer a broad and comprehensive range of learning pathways which are accessible financially, geographically and which provide opportunities for employment;
- Have an international reputation for research, knowledge transfer and enterprise which drives regional and national economic and societal transformation;
- Be a regional, national and international partner of choice for staff, students, community, industry, business, universities and other stakeholders;
- Provide an environment which supports diversity and equality of opportunity which fosters values, open-mindedness and creativity in the personal and professional lives of all who engage with us.

3.2 Mission

Our mission will inform our strategic goals, it is based upon our values and the aspirations set out in our vision:

1. Provide a broad range of learning opportunities at levels 6-10 of the National Framework Qualifications (NFQ) informed by regional and national needs and exhibiting distinctiveness through an interdisciplinary approach.
2. Deliver a strongly student centred experience, which focuses on equality of opportunity in relation to diversity and inclusion.
3. Develop and implement smart specialisation strategies that closely align research centres of excellence with regional and national priorities and the goals of international research and innovation programmes.
4. Create and optimise a multi-campus learning environment, with a presence in the major regional population centres, delivering a quality student experience aligned to guiding values and principles.
5. Educate and prepare graduates to the highest level who are work-ready, lifelong learners with an international outlook and the skillset necessary to navigate the global workplace.
6. Prioritise the co-creation of knowledge; recognising the strength of partnership working and putting in place mechanisms to support stakeholder engagement.
7. Optimise the use of technology in redefining the student experience, increasing accessibility and generating and disseminating knowledge to provide regional, national and international impact.
8. Commit to driving regional growth and prosperity through creating an organisation of international reputation that provides recognised expertise and learning to meet the needs of society and industry at regional and national level.
9. Embed opportunities for international academic/research experiences for students and staff to develop global citizenship and highlight TUSEI as a destination of choice for international staff/students.
10. Cultivate the personal and professional goals and aspirations of our students and staff through the provision of a working environment which supports creativity and collaboration and provides opportunities for professional development.

3.3 Values

Our values underpin who we are and provide us with the foundation on which our common identity and shared vision is fostered.

INTEGRITY: An environment of honesty, openness and equality of opportunity; where diversity is embraced and mutual respect is established through open debate, discourse and tolerance of difference in opinions.

CONNECTEDNESS: A collaborative partnership based approach in all that we do, that values the co-creation of knowledge, research and learning with staff, students, and external stakeholders.

SERVICE: We believe in the importance of public service, commitment and accountability and through our connected approach make this visible regionally, nationally and globally.

DISCOVERY: We have a passion for innovation and creativity and work with all our stakeholders to develop an environment conducive to discovery and enquiry through an interdisciplinary approach to learning and research.

AMBITION: We strive for excellence in all that we do, referenced to international benchmarks. We strive to provide a transformational experience for all who engage with us.

RELEVANT: Our learning, teaching and research are guided and informed by real world challenges. We aim to have impact within our regional, national and international communities through the professionalism of our staff, the work readiness of our graduates and the reach of our research.

TUSEI Academic Profile

TUSEI represents a significant “state change” in higher education in the South-East. In order to widen opportunities for residents of the region, a significant increase in the scale and breadth of operations from the existing Institutes of Technology is required. The shared vision is to focus on extending the range of educational opportunities available in the region, so as to enhance participation and success in higher education and also to attract learners into the region from other parts of Ireland and from abroad.

4.1 Overarching Framework for the Academic Portfolio

TUSEI will be distinguished by its excellence in delivering an academic portfolio, which is innovative, dynamic, disruptive, agile and responsive to industry and community requirements. The TUSEI academic portfolio will reflect the promotion of social justice, equality, diversity and equity, influenced and informed by the United Nations Sustainable Development Goals²⁶. TUSEI will address local, regional, national and global learners’ educational requirements, bringing together teaching, learning and assessment strategies with technology-enhanced learning mechanisms to fully engage and enable learners to reach their full potential. This will include ensuring that learners at all levels are provided with opportunities to engage, learn and up-skill by offering a range of programmes from Special Purpose Awards to Major Awards.

As the principle of “connectedness” permeates all the TU’s activities, all programmes will be stakeholder informed and reviewed in a context consistent with our connected mission. This approach includes recognising learners, our main stakeholder, as co-creators of knowledge. This will manifest itself in the academic portfolio, in the accessibility of the curriculum, in the research activity, and in all our institutional activities.

TUSEI will focus on developing graduates of the highest quality who are capable of responding to society’s requirements across disciplines such as humanities, science and engineering; it will excel in research and education across all higher education levels (Level 6-10) on the National Framework of Qualifications (NFQ),²⁷ including apprenticeship programmes. Through the provision of NFQ L9 and L10 research programmes, TUSEI is committed to working collaboratively with partners to find solutions to scientific and societal challenges and provide a better life for future generations. A range and breadth of academic disciplines will reinforce an active commitment to social justice and the promotion of innovation, culture and commerce. TUSEI will be an institution which offers wide-ranging opportunities to all categories of learners, generating new knowledge through research, co-design and innovation, and by addressing industrial, economic and societal challenges through collaboration with a broad range of civic, academic and industry partners.

²⁶ United Nations Sustainable Development Goals <https://sdgs.un.org/goals>

²⁷ Irish National Framework of Qualifications (NFQ) <https://nfq.qqi.ie/>

TUSEI will be a dynamic university promoting versatile engagement with lifelong learners and enabling learning to occur across a multi-campus organisation. Programmes will be designed to provide a structured system where learners are provided with the opportunity to attain qualifications and make full use of flexible learning pathways. Learners will be supported to follow their own path in terms of specialisations and modes of delivery, thereby creating unique learning opportunities. For learners in employment, TUSEI will champion the provision of accredited work-based learning through the provision of bespoke programmes, co-created with industry and sector experts.

By offering programmes across all higher education levels on the NQF, including apprenticeship programmes, TUSEI will show agility in responding to, developing and providing programmes which address the evolving requirements of a global knowledge-based society and economy. TUSEI will produce high calibre graduates who are highly sought after and prepared for a changing world. Programmes will have work-based or practical components that allow learners to gain experience, either through placement opportunities or work-based simulations or other elements of learning. As well as having a thriving international learner cohort, through innovative design, leveraging partnerships and global initiatives, TUSEI will ensure that every learner has, in some measure, a meaningful internationalised learning experience.

The Academic Portfolio will reflect a holistic conception of graduate formation, offering programmes across a spectrum of disciplines, including Science, Technology Engineering, Business, Health Sciences, Humanities, Liberal Arts, and Social Sciences. There will be a focus on learner empowerment that will facilitate learners to find their best selves and manifest this in their actions and attitudes to work and life. The TUSEI Mission Statement affirms commitment to “Create and optimise a multi campus learning environment, with a presence in the major regional population centres, delivering a quality student experience aligned to guiding values and principles.” This statement informs much of our approach to teaching and learning. Our learners are central to all that we do. TUSEI will be learner-focused, offering a diverse range of programmes, actively engaging with learners and preparing them for their futures.

4.2 TUSEI Charter for Programme Design

The *Charter for Programme Design* will guide the development of TUSEI programmes. The Charter mirrors the mission, vision and values of the new University and will, by virtue of inclusion, manifest as part of our Graduate Attributes. It is not prescriptive but indicates current approaches and suggested elements. Allied with the development of a defined, agreed delivery framework, these characteristics will be incorporated as part of programme design and development within the University and will constitute an integral aspect of our programme validation and review processes. It will facilitate coherence in articulation which, in turn, will support a shared understanding of common features across the spectrum of provision.

All our stakeholders will be supported to develop their knowledge and understanding of these specific areas to ensure that a common language is shared in all aspects of programme design and development. While this Charter builds on the Institutes' existing academic profiles and portfolio of provision, it provides a guiding framework as to the future development of our academic offerings.

These characteristics reflect our overarching intention that our academic portfolio will:

- Be innovative, dynamic, disruptive, agile and responsive to industry and community requirements;
- Challenge existing paradigms and disrupt the conventional understanding of higher education;
- Be stakeholder-informed, developed and reviewed, reflecting our valued principle of “connectedness” which threads through all our activities. In this way, all parties are supported to be co-creators of knowledge;
- Focus on developing graduates of the highest quality, who will respond to society’s needs across and beyond all disciplines.

This intent with regard to our portfolio is grounded in our mission statement which sets out that we will “Educate and prepare graduates to the highest level who are work-ready, with an international outlook and the skillset necessary to navigate the global workplace.” These claims give expression to the legislative requirements that the TU will:

- “Provide programmes of education and training that reflect the needs of individuals, business, enterprise, the professions, the community, local interests and other stakeholders”;
- “Support entrepreneurship, enterprise development and innovation in business, enterprise and the professions through teaching and the conduct of research”;
- “Collaborate with business, enterprise, the professions, the community, local interests and related stakeholders in the region in which the campuses of the technological university are located to promote the involvement of those stakeholders in the design and delivery of programmes of education and training, and to ensure that, in so far as possible, innovation activity and research undertaken by the technological university reflects the needs of those stakeholders” and
- “Support the development of a skilled labour force including, where appropriate, engaging in the education and training of apprentices”.

The TURN report indicates that “TUs also have a pivotal role to play in meeting in a responsive and agile way the skills priorities for the Irish economy, as highlighted in *Future Jobs Ireland*” and goes on to attest that “the acute focus of TUs on higher vocational, technical, technologically-based and professional skills will be crucial to this mission and an essential step towards rebalancing and revaluing skills and technology in HE and in wider society.” Equally, the TURN report suggests that the TU will “provide extensive opportunities for problem-, project-, action- and research-based teaching and learning practices, facilitating multi-disciplinary learning and the acquisition of essential transversal skills for work-ready graduates.”²⁸

²⁸ Technological Universities Research Network (2019) Technological Universities: Connectedness & Collaboration through Connectivity, Report of the Technological Universities Research Network to the Department of Education and Skills, <https://www.education.ie/en/Publications/Education-Reports/connectedness-collaboration-through-connectivity.pdf>

4.3 Charter Commitments

In adopting this Charter, TUSEI will give life to the following commitments and ensure that they form the overarching framework for developing curricula consistent with current and future strategic priorities.

We make these commitments to:

- Our learners
- Our communities: business, enterprise and professions
- Our values and ethos
- Our academic disciplines and their integrity

Commitments to our Learners

- Programmes will clearly articulate the learning experience created and supported for learners undertaking the programme.
- Programmes will include a statement of employability including articulating career pathways for graduates and evidence of how this may be achieved by completion of the programme.
- Learners will have the opportunity to develop practical skills and be work-ready within the discipline through identifiable activities available throughout the programme.
- Programmes will involve the learner in the design, delivery and review stages of the programme.
- Learners will have defined opportunity to develop personal, professional and social skills in addition to the core learning of the academic discipline.
- Learners will be empowered to provide active feedback on all aspects of the programme.

Commitments to business, enterprise, the professions and our communities

- Programmes will define the needs of the external communities expected to employ or engage with graduates and will document clear evidence of engagement with those communities prior to seeking validation.
- Programmes will draw specialism into programme design and delivery through well-defined connectivity of the programme with relevant external communities.
- Employability statements should be explicitly referenced to specific engagement with external communities.
- External communities should be involved in and support the embedding of appropriate work-ready activities within the programme activities.

Commitment to the TU values and ethos

- Programmes should have explicit reference to how the programme gives life to the values and ethos of the Technological University through inter alia
 - Clearly incorporating Equality, Diversity and Inclusion (EDI) both conceptually and practically. (Plans for the further development of EDI are set out in 4.1 in the Appendix)
 - Providing opportunities for internationalisation and the fostering of a global perspective.
 - Emphasising personal integrity and ethical responsibility.
 - Supporting sustainability.
 - Giving life to the published graduate attributes.
- Programmes should include an overarching statement of how they satisfy the strategic objectives of the TU and the academic disciplines they represent.

Commitment to the integrity of the academic discipline

- Programmes should draw on demonstrable academic capabilities within discipline fields when designing new academic programmes paying particular attention to the potential multi-discipline needs of the prospective graduate.
- Programmes should be designed so as to ensure that the graduate is competent within the discipline and has obtained the required level of qualification with particular emphasis on the practical orientation of the discipline field.
- Programmes should ensure that an appropriate level of research competency and enquiry is demonstrably present as appropriate to the discipline fields.

4.4 Operationalising the Charter for Programme Design

This Charter encompasses the overarching design principles upon which all programme development activity will be based and forms the guiding principle for the quality assurance and governance framework for assessing, reviewing and validating all programmes within the TU. The sample evidence bases allied to the design principles drawn from this Charter, together with the strategies for implementation, are set out in Table 2.

Table 2 Design Principles For Programme Development Activity

DESIGN PRINCIPLES	EVIDENCE BASE
Co-creativity	<ul style="list-style-type: none"> • Learner engagement in all QA aspects of programme development, curriculum design, delivery, governance, feedback and review; • Learner input in shaping teaching, learning and assessment through design and ongoing engagement e.g. co-production of learning resources, peer and self-assessment, co-facilitation, support quality interactions and relationships between staff and learners through continuous engagement; • External involvement in QA aspects of programme design, development and review; • External input in both programme design and delivery (guest lecturing), co-supervision and research design.
Equality, Diversity and Inclusivity	<ul style="list-style-type: none"> • Programme and module outcomes and content explicitly embed EDI as a concept, perspective, theme and practice; • Learning resources and design thinking should reflect EDI principles, e.g. decolonising the curriculum, embedding Universal Design for Learning (UDL) principles; • Fostering flexibility in programme design supporting learners to input into their own learning pathways and experiences; • Creation of a physical and learning environment that support all learners, e.g. alternative learning resources, technologies, supporting the Virtual Learning Environment (VLE).
Sustainability	<ul style="list-style-type: none"> • Programme and module outcomes and content explicitly incorporate sustainability as a concept and practice; • Embedding transformative learning, supporting learners to make sustainable changes to their frames of reference by critically reflecting on their beliefs and challenging their assumptions and reimagining new ways of thinking, e.g. through enquiry-based learning, problem-solving, peer critiquing and support systems.
International	<ul style="list-style-type: none"> • Staff and Student Mobility; • Collaborative Online Learning with other universities and organisations; • Programme and module outcomes and content explicitly incorporate internationalisation as a concept, theme and practice; • Purposefully develop students' international and intercultural perspectives through the design of learning resources and experiences; • Introducing pedagogies to internationalise the curriculum through the adoption of learning and teaching activities which integrate global and cross-cultural perspectives.
Accessibility	<ul style="list-style-type: none"> • Defined access, transfer and progression routes; • Teaching, learning and assessment strategies which support accessibility, flexibility and active participation; • Recognition of prior learning as a central feature.

Work-integrated	<ul style="list-style-type: none"> • Programme and module outcomes and content explicitly incorporate work-readiness and employability as a central concept and topic; • Placement as a central feature within the programme; • Work-based projects; • Outward-looking programme design and delivery through input from industry and community organisations; • Industry and community-led research Professional Regulatory and Statutory Body (PRSB) accredited and approved.
Research-informed	<ul style="list-style-type: none"> • Research-informed modules across all stages of the programme; • Connectivity with TUSEI research and innovation endeavours; • Centrality of enquiry-based learning and its branches in the programmes' teaching, learning and assessment philosophy.

4.5 Disciplinary Mix

The long-term vision for the disciplinary mix of the University will be developed by the new entity and articulated as part of its development strategy. To some extent, external controls and learner and industry requirements will influence the growth of the portfolio. In some disciplines, growth may be curtailed by professional body quotas; there is high demand from applicants in nursing, for instance, but any growth in the discipline offering is subject to professional body capacity approval. In other areas, such as ICT and Engineering, growth suggested by the demand for graduates by industry is not matched by the pool of applicants who wish to pursue a career in the discipline. The strategy for profile development and mix will therefore be based to some extent on consideration of learner demand, resource capacity and expertise, and industry/societal requirements.

At the same time, TUSEI will be a leader regionally and will in part determine its future portfolio on the basis of emerging and future needs within the region (including future human capital needs), and on new innovations within and between disciplines that emerge from institutional research and innovation activity. Therefore, in a significant way, the future portfolio of TUSEI will be guided by activity in research and innovation. The institutional history of inter-disciplinary programme development and teaching is a strong foundation on which to develop new kinds of programmes, both in terms of content and delivery.

TUSEI will offer programmes across a broad range of academic disciplines and across the range of the higher education levels on the National Framework of Qualifications. TUSEI will provide access across the disciplinary range and will expand and enhance the current academic portfolio. To date, the institutions have a strong track record in developing “new disciplines”, that is, disciplines that are atypical of an IoT and this approach will continue in the TU.

Its aim will be to attract learners into the region with a particular focus on those who are underrepresented in higher education. Many are pursuing programmes of study which are not available within the region; others are pursuing programmes of study that are within the region but may not consider a programme as it is not offered by a university. Once they take this path of

study, research indicates that they tend to seek employment outside of the region also, resulting in a potential long-term exodus from the region. The retention of a greater proportion of this regional talent within the region is a core task for the new TU.

4.6 Graduate Attributes

The cohort of students who will be part of the community of TUSEI will comprise a wide range from different educational backgrounds i.e. school leavers, mature students, lifelong learners, full-time and part-time students, postgraduate students, international students, and those representing different cultures and experiences. Underpinning what we do is our Graduate Attributes Framework. The Graduate Attributes Framework will reflect what it means to be a graduate of TUSEI in terms of the skills, values and knowledge embedded into programmes and the wider student services, which will inform our teaching, learning and research activities. These attributes will instil a sense of graduate confidence in our learners as they turn to the world of work and to potential postgraduate study.

These graduate attributes will build on existing and developing attributes across IT Carlow and WIT. Extensive collaboration will take place to further develop attributes involving academics, students' union, sports, student supports, and the overall community of the University to inform the student lifecycle from registration to graduation. Graduate attributes will focus on facilitating a fully inclusive experience from the first day on campus to the graduation ceremony, through to being a TUSEI alumnus and a lifelong learner.

4.7 Equality of Opportunity

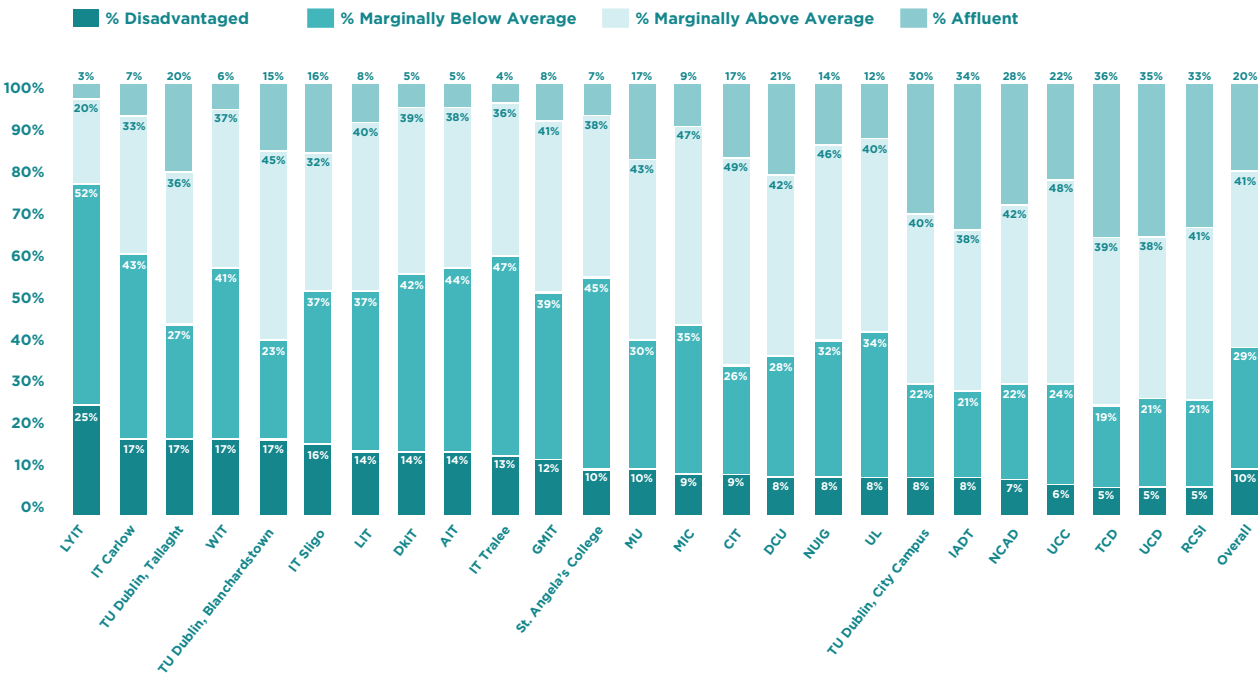
Core to the TUSEI proposition is the expansion of higher education opportunities to all residents in the South-East region. As is stated in TUSEI mission statements, the University will be committed to the delivery of “a strongly student-centred experience, which focuses on equality of opportunity in relation to diversity and inclusion”. TUSEI will extend the range, quality and type of opportunities available to learners in the region by enhancing the range of disciplines and by increasing the flexibility of the portfolio and the accessibility of programmes. The creation of TUSEI provides a unique opportunity to embed the principles and values of EDI into the organisational structure, strategies, policies, procedures and culture of the new TU, ensuring that EDI becomes a hallmark of the new TU and that TUSEI leads developments in this area across the wider HE sector, regional industry and society. The TU will have a strong and diverse inclusive environment for all staff and students ensuring everybody is valued and can work or study to their full potential.

TUSEI is informed by an awareness of the very broad demographic profile of learners and a commitment to provision of respectful and inclusive interventions and supports for learners from across the region. This commitment is realised in the variety of academic pathways available to students, the variety of access points to programmes, the flexibility in delivery mode, the availability of programmes in multiple locations and remotely through an “extended” campus. It manifests itself through the strong recruitment of part-time and flexible learners, mature students, and students from particularly disadvantaged learner cohorts (from areas of socio-economic disadvantage, for instance). The commitment to equality of opportunity in student recruitment and in the set-up of the academic portfolio reflects a deeper institutional commitment to equality, diversity and inclusivity.

TUSEI is committed to ensuring that learners with disabilities are treated in a fair and inclusive manner and given the opportunity to achieve their academic goals in a supportive learning environment, through promoting the practice of inclusive teaching, learning, and assessment, and aiming to ensure that courses are accessible and enable full participation for all students. All academic Departments are encouraged to ensure that accessibility is a key consideration when developing new courses or when redesigning or evaluating existing courses.

The track record of both Institutes to date demonstrates successful engagement from non-traditional cohorts – the graph below indicates the levels of disadvantage of students attending our Institutes in 2018/19, thereby showing our history of successful engagement with non-traditional cohorts.

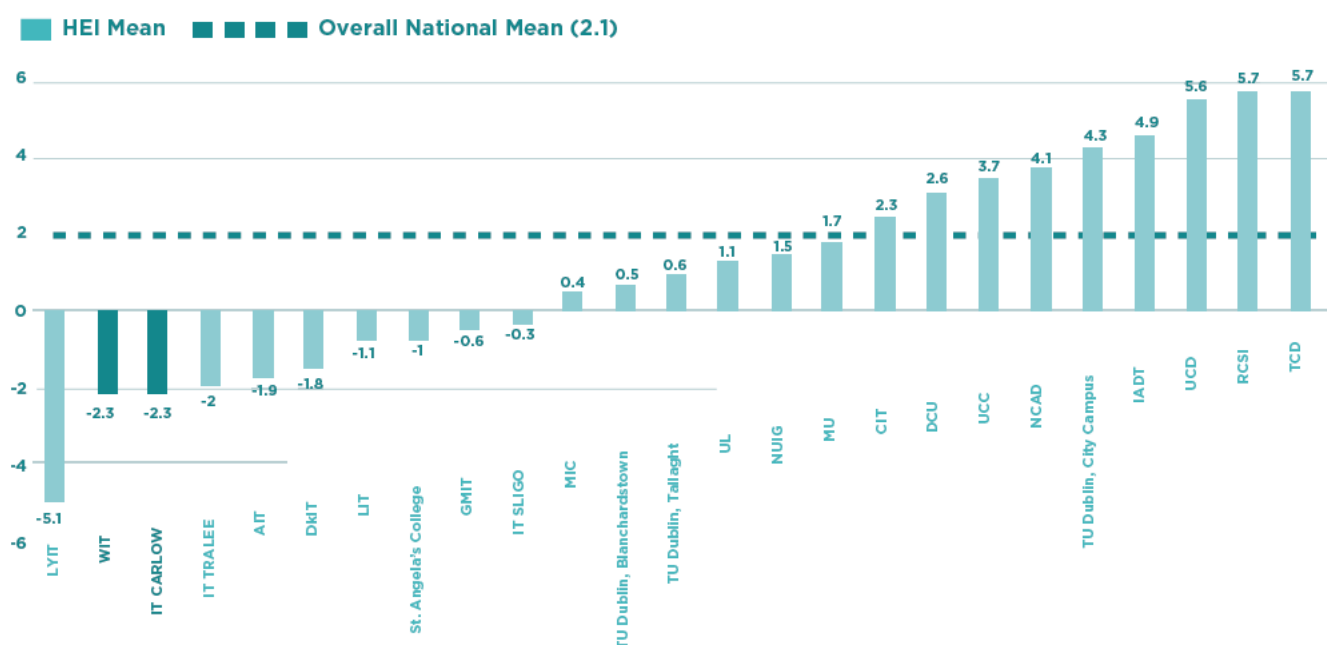
Figure 5 Socio-economic profile of HEI student populations for 2018/2019²⁹



The Deprivation Index of students attending Carlow and Waterford campuses in 2018/19 depicted on the graph below demonstrates that students attending our TU will be from the most disadvantaged groups in society.

²⁹ Source: HEA.ie <https://hea.ie/2020/12/07/new-hea-data-provides-in-depth-insight-into-the-socio-economic-profile-of-our-universities-and-institutes-of-technology/> – HEIs ordered by % disadvantaged, largest to smallest, left to right.

Figure 6 Mean deprivation index score by HEI for 2018/2019 enrolments³⁰



4.8 Lifelong Learning

The University offers an opportunity to define lifelong learning (LLL) as a means of facilitating transformative change both in terms of widening access to learners across their lifespan but also positioning lifelong learning as a means of driving significant social, economic and cultural development in the region. Both current institutions have a proud record in flexible lifelong learning provision and are sectoral leaders in the provision of a lifelong learning continuum across the higher education spectrum and in response to the increasingly diverse range of learner needs. Lifelong learning students make up 45% of the student body of the current institutions. LLL continues to grow by responding to the skills needs of the region and beyond and will become a substantial integral part of a strong brand identity for TUSEI.

Our University will build on the collective strengths of both Institutes to create and embrace a culture of LLL which transforms our society, enabling people to be able to participate more fully in the workforce but also in their homes, in their communities and in the wider society. It will inherently link to the development of our academic profile and provision particularly in the areas of Work Integrated learning and Recognition of Prior Learning.

UNESCO and the Futures of Education Initiative³¹ advocate for transforming schools and universities into Lifelong Learning institutions. In doing so they inform the approach LLL will take in TUSEI. This approach will support the development of a culture for lifelong learning that fosters sustainability, resilient societies, thriving economies, social cohesion, active citizenship and mental and physical well-being and will inform our view of life-long learning in the University and position lifelong learning as strategy, pedagogy and philosophy.

TUSEI will promote a dynamic and integrated approach to life-long learning as a means of addressing current and future skills needs throughout the region and which moves beyond seeing

³⁰ Source: HEA.ie <https://hea.ie/2020/12/07/new-hea-data-provides-in-depth-insight-into-the-socio-economic-profile-of-our-universities-and-institutes-of-technology/> - Note: Data include all 2018/19 ROI enrolments - full-time, part-time, undergraduate and postgraduate, all course years, where geocoded data are available (94% coverage).

³¹ UNESCO Futures of Education - Learning to Become, <https://en.unesco.org/futuresofeducation/>

LLL as a mode of delivery. The University will work in partnership (utilising linked and collaborative provision) with industry and community across the region to design programmes for those in employment who require new skills and those seeking up-skilling or re-skilling to prepare for new roles and opportunities. TUSEI will work in partnership with other education providers, such as the further education and training sector in the region, and leverage knowledge gained via our research centres to assist in predicting future skills needs for the region. We will link the development of our academic profile and provision particularly in the areas of work- integrated learning, recognition of prior learning and new forms of credentials.

4.9 Employability

Learners will be supported to undertake work-integrated learning to reflect the authentic learning environment of the workplace. The role of TUSEI will also be to equip and qualify people already in employment to continuously develop lifelong learning skills, not just through engagement with existing disciplines, bodies of knowledge and programmes defined by the higher education institution but also through work-based activity. The organisations with which learners and the TU will engage will benefit directly through projects that advance the organisation, as well as contributing to student learning. The arrangement is a three-way partnership – involving organisation, learner and university. In this arrangement, individuals' learning is linked to the strategic goals of the organisation, together with the knowledge and experience they bring to the learning. A key responsibility of the new TU will be the recognition, assessment and accreditation of this learning.

4.10 Stakeholder Input to Programme Design and Delivery

Each faculty, department and programme will be required to demonstrate through formal structures (both in programme validation and in periodic review) how they engage with business, enterprise, the professions, the community, local interests and related stakeholders in the region. These formal groupings, where feasible, should be led by external stakeholders, meeting on a defined frequency, with measurable outcomes tied to learner achievements. It is accepted that programmes will interface with work-based learning across the continuum. The new organisation will provide that all programmes must clearly map to this continuum. Programme management and review will reflect the formal advisory board processes. Connection of programme learning to the workplace through formal agreements and structures of work placements and work-related projects also serves to provide feedback and ensure currency of learning, and programme design and development.

4.11 Professional Accreditation

The TU will enable professional recognition, recognising the professional orientation of the University and the importance of career ready graduates. This should include support for staff to engage with the appropriate PRSB. Registers of all such staff and programme engagement will be maintained and both national and international engagement will be encouraged. Where existing arrangements are in place, the new organisation will migrate programmes for such recognition.

4.12 Supporting and Predicting Future Labour-force Needs

The clear strategic approach to engagement must include mechanisms to enable and support the evolution of the workplace and to continually and proactively address economic and societal needs. The development of research, engagement and consultancy work within the University will, of itself, generate new knowledge and commercial opportunity to both reshape existing stakeholder activity and indeed to create new and emerging industry. The development of research centres will act as “magnets” to attract new industry and talent into the region. As a university, it is expected that staff will contribute to the development of policy across economic and social spheres and be vocal in national debates across all of the disciplines within the University.

4.13 Apprenticeship Provision

One of the distinguishing features of the TU from more traditional universities will be the provision of apprenticeship programmes. There are currently two types of apprenticeships within Ireland's national system: traditional craft apprenticeships and new, employer-led apprenticeships. Applicant Institutes are currently delivering both types of apprenticeship programmes and the intention is to expand this provision in the future TUSEI. The University will support apprenticeship development and implementation to meet regional and national needs at NFQ Levels 6-10.

There are currently 27 traditional craft apprenticeships which are available across a range of sectors including Construction, Motor Mechanics, Electrical and Engineering. Craft apprenticeships generally comprise seven phases, three off-the-job and four on-the-job, and take a minimum of four years to complete. They lead to the learner becoming a fully qualified craftsperson.

Both IT Carlow and Waterford IT have a strong craft apprenticeship portfolio as set out in the table below. March 2020 student returns indicate 575 students registered as craft apprentice students (169 IT Carlow, 406 WIT) in the TUSEI consortium. The Institutes are national sole providers on three programmes: Electronic Security Systems, Electrical Instrumentation and Instrumentation. Both Institutes have been responsive in meeting sectoral growth in key growth areas such as the Electrical Apprenticeship and continue to be adaptable and competitive in meeting demand. The following table illustrates current craft provision in both partner IoTs:

Table 3 Craft Apprentice Provision ITC/WIT

Apprenticeship	Provider
Brick & Stone laying	Waterford IT
Motor Mechanics	Waterford IT
Plumbing	Waterford IT
Electronic Security Systems	Waterford IT (National Provider)
Electrical	Waterford IT
Electrical	IT Carlow
Electrical Instrumentation	IT Carlow (National Provider)
Instrumentation	IT Carlow (National Provider)
Carpentry and Joinery	IT Carlow

Both Institutes work together in the provision of apprenticeship under the regulatory control of SOLAS and are active in leading the development of specific apprenticeship in terms of curricula design and assessment. Both Institutes have active members on the Technological Higher Education Association Apprenticeship Committee (THEAC), which represents apprenticeship for the sector on a national basis. This group is currently feeding into the National Action Plan for Apprenticeship led by the Department of Further Higher Education Research Innovation and Science.

In 2020-2021, the Institutes were pivotal in the development of a contingency strategy with the Higher Education Authority, SOLAS and other providers for the provision of apprenticeship education during the COVID-19 pandemic. Ensuring quality control, both Institutes delivered apprenticeship programmes by remote learning, leading a new strategic pathway to apprenticeship provision.

New, employer-led apprenticeships emerged following a review of apprenticeship commissioned by the Minister for Education and Skills in 2013³² and the applicant Institutes are currently actively engaged in providing these types of apprenticeships. They are developed and managed by industry-led consortia, working with education and training providers and other partners. The training alternates between a workplace and an education and training institute, with a minimum of 50% of the training being undertaken on-the-job. Industries such as Computer & ICT, MedTech, Pharm/Biopharma, Insurance, Finance, Accountancy, Logistics and Hospitality sectors now have apprenticeships. TUSEI will utilise existing experience and portfolio to provide a strategic offering of apprenticeship for the South-East region and nationally. Utilising resources, the TU can expand its offering and meet the increase in demand for apprentices and leverage its competitiveness in moving into new apprenticeship disciplines such as Aircraft Mechanics. The TU will utilise its relationship with the cluster, Engineering the South-East, of which both Institutes are co-founders and steering group members, to further align the apprenticeship offering and portfolio expansion with its industry cluster. This relationship between the TU as a pillar of the region and industry will provide key strategic direction for the TU.

³² Apprenticeship Review Group (2013) Review of Apprenticeship Training in Ireland.
<https://www.education.ie/en/Publications/Policy-Reports/Review-of-Apprenticeship-Training-in-Ireland.pdf>

Research and Innovation

5.1 Guiding Principles

The impact of TUSEI on regional and national society and the economy will be deepened through high-quality research and innovation activity. While building on a strong base from within the existing Institutes, TUSEI will significantly enhance research and innovation activity, performance and output. The quality, scale and impact of that activity will be a major differentiating factor of TUSEI compared to the Institutes of Technology sector and to the significant, but non-integrated, research efforts in the two partner Institutes.

The focus of TUSEI will be on:

- Increasing the knowledge capital of the region through enhancing the excellence of the research from within the academy;
- Focusing the application of that knowledge to drive the socio-economic, socio-cultural and circular economy development of the region in domains of regional specialism; and
- Providing high-end, high-impact, well-paid employment opportunities for graduates, postgraduates, researchers and technical professionals within a substantial inclusive and collaborative research, open-science and open-innovation ecosystem.

The further expansion of research and innovation activity by TUSEI will be underpinned by the principles espoused in Ireland's research and innovation strategy which involve

- Focus on building excellence in research in strategically important areas;
- Strengthening the innovation and internationally-competitive enterprise base;
- Renewing the pool of talent both in the research system and in industry;
- Co-ordinating innovation activity to ensure a coherent, joined-up innovation ecosystem; and
- Catalysing talent and industry in order to create an internationally competitive research system.

The partner Institutes have been guided by these principles in developing their own research and innovation activities. TUSEI will integrate and synergise innovation and research activities across the partners and will, in developing the research and innovation proposition of the University:

- Focus on quality and excellence in research: The esteem with which TUSEI is held will determine the quality of its international partners and the use value of its research. Moreover, the quality of research is a determinant of the attractiveness of the institution to that international talent. Elevating existing research effort to the highest level of international recognition requires strategic prioritisation of key areas, strong partnerships with industrial and commercial actors, and the support of the State, as set out below;
- Develop researcher capacity within the faculty community: TUSEI will cultivate a researcher network (principal investigators and faculty, postdoctoral researchers, PhD and other research students, collaborators and others in industry, and an extensive network of administrative, technical, managerial and other support staff) that supports and advances high quality research and knowledge transfer. Developing the capacity and reach of the faculty community will also be achieved through blurring the boundaries between industry and academic domains to facilitate the free-flow of knowledge, technology, know-how, talent, experience and expertise between these domains.
- Deploy research in support of regional enterprise, positioning research within a larger regional innovation ecosystem: TUSEI will take a leadership position in an innovation ecosystem that harnesses the research capacity of the University in driving the region's economic and social development. This will involve expanding the network of "points of contact" for enterprise; embedding innovation and knowledge into regional discourse and the practices of other agencies through formal networks and agencies; engaging new forms of research activity, including social enterprise-related research and supports; and extending the range of enterprise supports available through the university network, including accelerator programmes and related initiatives, to support research-led enterprise, including early-stage companies, in accessing well-developed research capabilities and infrastructures. TUSEI will be particularly important as a means for attracting foreign direct investment (FDI) research-intensive companies to locate in the region. The University will achieve this, as well as support existing FDI and indigenous companies to be more competitive globally, by being more integrated and embedded in the region as a result of increasing its research and innovation footprint.

5.2 Overview of Current Research and Innovation Activity

Research and innovation is a core area of activity for both WIT and ITC. TUSEI represents an opportunity to combine existing strengths, pool resources and scale up activity.

Table 4 Summary Profile of Research and Innovation Activity

Researcher population	439 faculty verified as Research Active, 2017-2019 81 contract researchers and 21 post-doctoral researchers, 2019-2020
Research students	176 PhD students 2019/20 343 research Masters students 2019/20 92 doctoral graduates since 2015
Research outputs	804 peer reviewed articles since 2017-2019
Research funding	717 Research grants awarded jointly in 2017-2019 worth approx. €35m Value of Knowledge Transfers 2017-2019 was €5.1m (786 KTIs) €37 million in European funding (EU FP6, FP7 and H2020), through 26 successes from 228 submissions, with 4 submissions attracting funding greater than €1m. (Enterprise Ireland, April 2020) 4 INTERREG projects in 2019 jointly worth €10.65m
Other Esteem Indicators	Two European Research Council (ERC) grants with total value €1.6 million since 2015 50 Irish Research Council (IRC) awardees since 2015 7 Fulbright Scholar awards since 2005, in Education, Business (2), Health Science, Music Art and Media and a Fulbright alumni ambassador 4 Marie Skłodowska-Curie Action awards since 2015 Partners in 6 National SFI Research Centres 3 National KTI Awards Director for Engineering Research funded under phase 1, Senior Academic Leadership Initiative (SALI). Endowed Chair in Human Nutrition

The Institutes currently host four Enterprise Ireland Technology Gateways, as follows:

- Design+, Applied Design;
- SEAM, Advanced Manufacturing;
- PMBRC, Pharmaceutical and Healthcare;
- TSSG (now Walton Institute), Mobile Services

The Partners are hosts to five Designated Activity Companies (DACs) funded under the Regional Enterprise Development Fund:

- INSURTECH DAC
- 3D DAC
- Lean Industry 4.0 DAC
- National Design Innovation Hub DAC
- Team Rural DAC

These DACs provide industry-focussed training and innovation solutions in design thinking, rural entrepreneurship, additive manufacturing, 3D printing, insurance, financial services, data science and lean management. The two Institutes partner formally with Maynooth University (MU) and Athlone Institute of Technology (AIT) in a consortium as part of Knowledge Transfer Ireland's Technology Transfer Strengthening Initiative (TTSI) programme.

The Institutes currently support approximately 65 companies in incubation and innovation centres in Waterford, Kilkenny and Carlow.

The Appendix, Section 5.1 describes in more detail the current range and breadth of research within the consortium and in Section 5.2 sets out a number of important additional initiatives in each of the institutes, and collaboratively, which will be of consequence in the development of the research performance of TUSEI.

5.3 Organisation of Research

Research is encouraged amongst academic staff and, across all disciplines, and there is a large research active community. The community comprises research active staff, post-doctoral and contract research staff, research students, industry partners in some cases, and administrative, technical, managerial and other support staff.

Research forms a part of the curriculum for most programmes at honours bachelors level and the research active community participates in advising students on those projects. Research active staff design and form the supervisory teams for the research degrees offered in both Institutes. New programme development and programme design is informed by research active staff and takes account of the input of research groups and centres. In most cases, dedicated research facilities are located close to undergraduate teaching and, in many cases, are drawn on in delivering elements of the undergraduate curriculum.

Both Institutes have formal structures that allow for clusters of active researchers, pursuing appropriate forms of research and innovation activity, to form, in the first instance, research groups which are formally endorsed by the Institutes. Currently there are 25 active, institutionally approved research groups in the consortium. In time, some of these groups will achieve the appropriate mass to be designated, formally, as research centres. The partners currently maintain 9 active research centres. Finally, a research centre may grow to the scale of operations to become a research Institute. The partners currently have one research Institute, the Walton Institute, in the area of ICT. TUSEI will continue to operate this broad research maturity framework that provides a clear path for

the evolution of research and innovation from a single researcher to a large-scale institute.

Centres and groups typically are located within Schools/Faculties. Separate governance and management arrangements, within the overall university governance structures, will apply to research institutes as scale requires.

Central research functions provide co-ordination and support services. Quality assurance for research degree awards is provided for by formal committees of Academic Council. TUSEI will establish a separate Research Council as a formal mechanism to support the strategic development of research at the Institute. A Research Ethics and Integrity Committee and a committee of Academic Council will support the development of research. A Technology Transfer & Commercialisation Office will ensure a seamless connection between the knowledge transfer function, research strategy and societal impact.

5.4 Regional Alignment

The South-East is an innovative region, with a high rate of start-ups and LEO (Local Enterprise Office)-supported firms. Both Institutes' incubation facilities are a critical piece of the regional infrastructure to support spin-out, start-up and early-stage companies. These incubation facilities provide physical space and access to enterprise-supports including start-up programmes, accelerator and mentoring programmes. In addition, through the co-location of these facilities with the Institutes' research capacity, it enables early-stage, research-led enterprise to access the Institutes' research capabilities and infrastructure. This co-location model whereby start-up and scaling companies can leverage the Institutes' research capacities has contributed greatly to the development of a vibrant dynamic start-up cluster in the South-East which will be further expanded in the University.

Collaborative research and development activity with companies is a defining characteristic of how the Institutes engage with enterprise in the region. The four Enterprise Ireland (EI)-funded Technology Gateways offer regional industry a pathway to access the research resources of the Institutes to deliver a client-focused research and consultancy offerings that deliver product and service development solutions to companies, leveraging the mechanisms outlined below. Initial scoping exercises suggest that the areas of specialism, in the broader and research and innovation contexts where many are already developing, with potential for the South-East are:

- Design Thinking and Innovation
- Information and Communications Technology
- Manufacturing and Engineering
- Pharma and Medtech
- Health
- Financial Services (including Fintech)
- Agri/Food (including Agri-tech, Precision Agriculture and Sustainable Land Use)

These areas of specialism and related regional strengths driven by TUSEI will ensure regionally appropriate research and innovation focus.

Alignment with regional strengths has to date been assured through the ongoing participation of the Institutes in relevant regional forums, through extensive involvement in industry networks at multiple levels within the organisations, through the activities of the four Gateways, each of which have industry-led steering committees, and in many cases through formal industry boards at Faculty/School level. The University will expect to elevate and further systematise alignment with regional strengths through the creation of new formal engagement structures (see Chapter 6).

5.5 Research Support Infrastructure

The extensive supports that exist already in the two partner institutions in support of research active staff will form the basis for the future development of research support infrastructure in the University. Table 5 summarises current research support services.

Table 5 Research Support Services

RESEARCH SUPPORT	WIT	ITC
Research Office	Research Support Unit	Research and Commercialisation Support Centre (RCSC)
Commercialisation Supports	Industry Services and Technology Transfer Office	Research and Commercialisation Support Centre (RCSC)
Graduate Studies	Graduate Studies Office	Postgraduate Studies Office
Finance	Dedicated Research Project Accounting Team	RCSC Finance Officer
Human Resources	HR Business Partner for Research as part of HRS4Rs designation Recruitment Officer for Research	General support from HR/Core Directors/Faculty Heads

Quality Assurance	Supervisors Seminar Series	Policies and Procedures for Postgraduate Research Students Research Integrity and Training Research Ethics Committee
	Code of Conduct for the Responsible Practice of Research	
	Research Advisory Council	
	Research, Innovation, Entrepreneurship Committee of Academic Council	
	Research Integrity Officer and training	
Researcher Development	Broaden Your Horizons Researcher Development Programme	
	Brownbag lunchtime Seminar Series joint ITC/WIT weekly event	
Research Events	Annual Research Day	Research Week
	Research Supervisor Masterclasses	Monthly journal clubs
South-East Research Sparks joint ITC/WIT event		
Amplitude Open Innovation joint ITC/WIT event		
Annual Post-graduate Research conference		

The EURAXESS HR Excellence in Research Award provides the framework within which the future development of these supports and wider development of careers for research staff in TUSEI can take place.

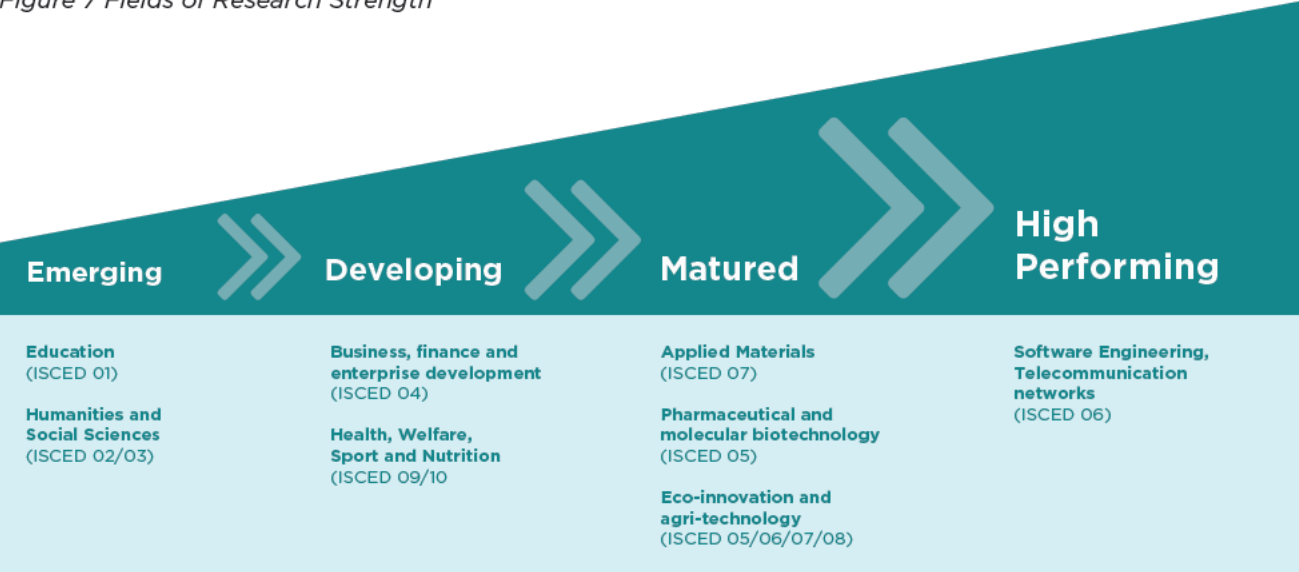
To date, a significant investment has been made in Researcher Development with the launch of WIT's Broaden Your Horizons (BYH) Researcher Development Programme which will translate into TUSEI. Based on the skills and experience that National and International funders expect Researchers to develop during the course of their research career, the programme is delivered collaboratively by internal and external specialists, offering a tailored suite of workshops, courses, events and resources. All programmes within the BYH programme have been extended to Researchers in ITC since 2020, many of whom have actively engaged in the training programmes and workshops most recently the EPIGEUM Online Researcher Development courses on Research Ethics, Research Impact, Supervising PhD Candidates and Research Integrity. Introduced in 2019, The Odyssey aims to pair experienced Researchers (Mentors) with colleagues at an earlier career stage (Mentees), to provide guidance, specific skills and knowledge that will enhance the mentee's career and personal growth during their research journey at WIT. Plans are underway between both ITC and WIT to run a joint Odyssey Research Mentoring Programme in the 2020-2021 academic year.

5.6 Research Growth Plans

Domains for Future Development

The consortium has identified six fields of research strength, with recognisably differing levels of activity, significance, and impact. These have been categorised as High Performing, Matured, and Developing, with additional future fields classified as Emerging in the consortium’s typology. This classification is based on an analysis of research outputs, staff research activity, PhD-student recruitment, and knowledge transfer activity

Figure 7 Fields of Research Strength



This categorisation also reflects the levels of maturity of the existing research groups, centres and institute within the consortium and is the foundation for future growth.

For the purposes of the legislative criteria³³, the consortium has identified the High Performing and the Matured areas as Fields where there is significant critical mass and where research and innovation activity takes place to a high standard. In the coming period, therefore, the University will

- Elevate the performance of the two areas identified as Developing to the level of Matured; and
- Elevate the performance of at least one of the areas identified as Matured to the level of High Performing.

(In terms of the research maturity framework described in this chapter, this will entail, in essence, the creation of a second Research Institute in the period to 2027, the development of at least two additional research centres of scale by 2027, and the elevation of the performance of a number of research groups to a high level and to the status of nascent centres by 2027.)

Projections of Future Growth

The following table describes the expected future growth in each of the nominated areas. Future growth targets are set out for (a) graduate studies within the discipline (in terms of awarding

³³ See Technological Universities Act 2018, 28 (1) (g), (h), and (j).

authority and PhD students), (b) volume of research outputs (in terms of peer-reviewed articles, grants awarded, and knowledge transfer agreements), and (c) staffing (research active staff and post-doctoral researchers).

Table 6 Projections of Future R&I Growth by ISCED

Indicator	Field 1 Software Engineering, Telecommunication Networks			Field 2 Applied Materials			Field 3 Pharmaceutical and Molecular Biology			Field 4 Eco Innovation and Agri Technology			Field 5 Business Finance and Enterprise Development			Field 6 Health, Welfare, Sport and Nutrition		
ISCED base	06			07			05			05/06/07/08			04			09/10		
Year	Current	24/25	29/30	Current	24/25	29/30	Current	24/25	29/30	Current	24/25	29/30	Current	24/25	29/30	Current	24/25	29/30
Programmes leading to L10	WIT: DA ² ITC: PA ³	TUSEI: DA		WIT: PA ITC: PA	TUSEI: DA		WIT: DA ITC: DA	TUSEI: DA		-	TUSEI: DA		WIT: DBA accreditation	TUSEI: DA		WIT: PA ITC: PA	TUSEI: DA	
¹ Research Active Staff	150	169	190	70	79	89	72	81	91	72/150/ 70/2 (294)	331	372	52	61	71	41/- (41)	48	56
¹ PhD students	21	24	27	17	19	21	45	51	57	45/21/1 7/- (83)	93	104	58	68	79	14/13 (27)	31	36
¹ Postdoc researchers	7	8	9	4	5	6	6	7	8	6/7/4/- (17)	19	21	2	2	3	2/- (2)	3	4
¹ Peer reviewed publications	19 (3 yr=56)	⁴ 21	⁴ 24	19 (3 yr=57)	⁴ 21	⁴ 24	17 (3 yr=50)	⁴ 19	⁴ 21	59 (3 yr=176)	⁴ 66	⁴ 74	7 (3 yr=22)	⁴ 9	⁴ 11	14 (3 yr= 41)	⁴ 16	⁴ 19
¹ Knowledge Transfer activity	46 (3 yr= 137)	⁴ 51	⁴ 58	82 (3 yr= 248)	⁴ 93	⁴ 104	10 (3 yr= 29)	⁴ 11	⁴ 12	141 (3 yr= 422)	⁴ 158	⁴ 178	53 (3 yr= 158)	⁴ 61	⁴ 72	16 (3yr= 49)	⁴ 19	⁴ 22
Number Grants Awarded	68 (3 yr=205)	⁴ 77	⁴ 86	52 (3 yr=156)	⁴ 58	⁴ 73	59 (3 yr=177)	⁴ 66	⁴ 75	210 (3 yr= 630)	⁴ 236	⁴ 265	6 (3 yr=19)	⁴ 7	⁴ 9	17 (3 yr= 50)	⁴ 19	⁴ 23

¹Under 'current', the number of grants, peer reviewed publications (data indexed in Scopus 28/07/2020) knowledge transfer activity and active researchers refer to a cumulative total for the years 2017-2019 inclusive; PhD students refers to the maximum number registered at a point in time, per ISCED over the 5 year period 2015-2020; Post-docs is the number in the academic year 2019/2020; ²Delegated Authority; ³Provider Approval; ⁴per annum. Trajectory calculated as fields 1-4: 12.5% increase per 5 years; fields 5-6: 17% increase per 5 years and projected figures are presented per annum for the years 2024/2025 and 2029/2030 in the case of number of grants, peer reviewed publications and knowledge transfer activity.

Regional Alignment⁴

The development of research activity along the lines above is entirely aligned with regional strengths and needs. These regional needs are established in the *South-East Regional Enterprise Plan*, in the *Regional Spatial and Economic Strategy* and in other regional development policy documents. The specific objectives of the regional enterprise plan addressed by expanding the range and quality of research in the University are those relating to:

- Enhancing the existing environment for enterprise activity and company growth; and building greater resilience into the regional economy;
- Establishing the South-East as a place of choice for talent and investment and market the region as such;
- Making the South-East a "learning region" with education, knowledge generation and exchange, and innovation as central activities that allow all to play a role in the economic, social and cultural development of the region.

The domains of future growth align with regional strengths as set out in Chapter 1 above. Specifically the growth projected is aligned with industrial and enterprise development in:

- Engineering and manufacturing
- Medical technologies
- Pharma and bio-pharma
- ICT
- Financial services
- Food and drink/food production

Development Plan

A development plan will be developed focussed on building critical mass in the areas identified for growth. It will take account of the legislative criteria relating to staff PhD qualifications (that requires that the proportion of full-time academic staff delivering programmes of at least honours bachelors level with a doctoral qualification would rise from at least 45% to at least 65%). It will also take account of the proportion of the overall student population made up by research students (requiring that the population of students registered on programmes leading to at least an honours bachelors award grows from at least 4% to at least 7% by 2032).

To achieve the necessary growth, the development strategy for the first decade of the TU will therefore focus on enhancing:

- Volume and quality of research activity amongst faculty, specifically:
 - Increasing the volume and quality of faculty publications;
 - Increasing the volume of successful grant applications and research funding;
- Supervisory capacity:
 - Increasing the number of staff with doctoral degrees and capacity to supervise;
 - Building effective structures in support of research degree supervision—;
- Research support infrastructure:
 - Building administrative capacity;
 - Enhancing research career structures, including:
 - The creation of a Professoriate;
 - Extending Post-doctoral opportunities;
 - The creation of other research-related roles;
 - Building research governance structures and research policy infrastructure;
 - Building more effective structures to communicate about research;

- Engagement with external partners, specifically:
 - Increasing knowledge transfer activity with particular emphasis on industries closely aligned with areas of research excellence;
 - Enhancing existing innovation ecosystem structures in support of engagement activity including collaborative research programmes;
- Physical infrastructure:
 - Creation of a physical infrastructure in support of increased research activity in key areas;
 - Creation of physical infrastructure to accommodate increase in support staffing.

Case Study for Research and Innovation:

Engineering the South-East sees both Institutes co-operating with industry to deliver the best outcomes for the region's engineering sector. The cluster sees regionally-based companies, from established businesses to start-ups, education providers and government agencies working collectively to promote, support and develop engineering in all its forms for the benefit of the region. A key objective of the cluster is to support and encourage research and innovation in the region's engineering sector by connecting industry with the research resources of the partner Institutes, to deliver innovation that supports continued development, growth and export potential.

5.7 Strategic Actions

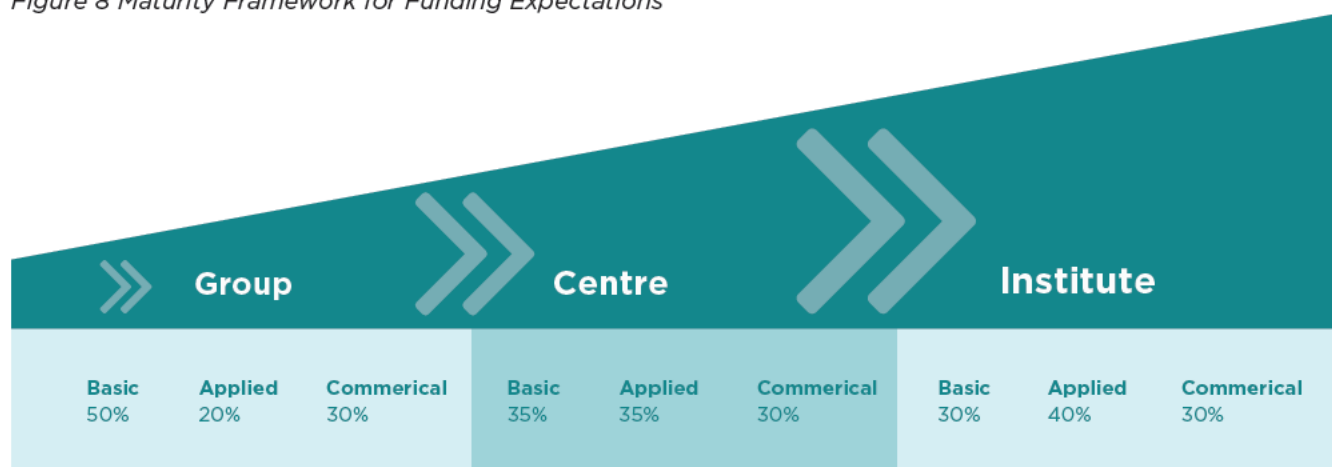
This section sets out the strategic actions that will be taken to enable the growth prescribed above. Growth plans are presented with regard to:

- Research funding
- Research and supervisory capacity of staff
- Research students
- Collaboration, knowledge transfer and regional engagement
- Research and knowledge transfer support infrastructure

Development Action 1: Strategic and Targeted Approach to Research Funding

The University will have an ethos of diversification of funding streams which can be broadly categorised as funding for Basic/Applied/Commercial research. Funding expectations and the balance of funding between each category for each research entity on the maturity framework set out above are broadly as follows:

Figure 8 Maturity Framework for Funding Expectations



It is an expectation that as research groups consolidate into research centres and research centres into research institutes, the balance of applied research will rise from about 20% of the research income of the entity to about 40%, with the balance of basic research changing from approximately 50% to 30% of research income. It is proposed that the balance of income from commercialisation remains at about 30% of funding for each entity. The expected revenue mix here utilises a normalised approach to cater for the varying scales of operation of the existing research entities and to clearly illustrate the general trajectory and revenue mix that will typically be experienced by advancing research groups, centres and institutes within the University.

The University will take the following targeted approach to research funding in support of the growth of the areas given above.

- Aim to participate in multiple different Science Foundation Ireland (SFI) research centres in order to diversify funding guarantee for future basic research, as well as cater for the different thematic areas relative to their core expertise. This will be managed and coordinated by the Director of Research/Lead research of each entity, based on the calls for proposals that are set out by SFI.
- Aim to participate in SFI Spoke programmes (and others such as PRTL Research Programmes and People Awards, or Research Programmes from Governmental Departments) in order to further increase the number of postdoctoral research fellows as well as PhD students.
- Target EU FETs and Cost Actions;
- Target funding through, for example, the Enterprise Ireland Commercialisation Fund or the SFI TIDA fund.

In support of all the above, the University will:

- Form a “proposal group” in support of funding applications and to train all researchers within the research entities to have EU proposal writing expertise. Note, applied research programmes such as those funded by Interreg fall into this category.
- Develop a clear stage-gate process for proposal selection and production;

- Reuse research proposals, and exploit research outputs, as follows:
 - Derive commercialisation funds (CFs) from EU Proposals – leverage the content in order to secure CF funding for aspects of the proposal. This will mean extracting technical concepts from the EU proposal for the CF, while the commercialisation side of proposal will have to be written independently.
 - Derive innovation partnership programmes (IPPs) from EU Proposals – similarly, arising from existing proposals, identify industrial players in Ireland with similar interests to those in the EU proposals and talk to them about the ideas we have collected, and develop these connections as Innovation Partnerships.
 - Innovation Vouchers – leverage vouchers to provide a larger innovation offering for companies by creating a roadmap for vouchers to allow companies to gain a more substantial output. In addition, guide voucher clients towards express and large IPPs where feasible.
 - Develop service offerings that can be provided by research entities in addition to typical research activities. The University will have testbeds, infrastructure, professional services, verification and validation, etc. Each of these additional offerings will be identified, documented and advertised to relevant audiences.

Development Action 2: Enhance Staff Research and Supervisory Capacity and Deepen the Staff Research Base

Any future strategy to develop the staff research base will need to balance a requirement for considerable capacity-building in the form of staff professional development and supports/funding for doctoral education with investment for strategic recruitment of doctoral qualified staff including consideration of the appointment of an international professoriate, as well as a range of other initiatives. In order to deepen the research base and enhance staff capacity (and in order to meet the legislative criteria relating to staff qualifications), the University will take the following actions:

- Target recruitment to ensure a large proportion of new academic staff possess doctoral qualifications, and particularly plan recruitment around staff retirements with this in mind;
- Continue to support staff enrolment on PhD programmes as part of their continuing professional and career development;
- Invest in scholarship initiatives such as the South-East Regional Development Scholarship Fund³⁴ to give opportunities to “novice” supervisory teams;
- Expand the Odyssey Research and Supervisor Training programme across the University;
- Develop and initiate a formal level 9 supervisor education module for all new/novice supervisors;
- Further expand the delivery of the professional development opportunities for researchers and supervisors through online Epigeum courses and Masterclasses;
- Utilise international networks, including the European University initiative, to create joint (international) supervisory teams;
- Expand and utilise the UK joint professor scheme currently in situ;

³⁴ South-East Regional Development Scholarship Fund
<https://www.itcarlow.ie/research/research-vacancies/south-east-regional-development-scholarship-fund.htm>

- Grow the population of post-doctoral researchers, both by nurturing existing and attracting new, well-qualified postdoctoral research fellows who in turn will be encouraged to apply for European Research Council, Marie Skłodowska-Curie Action awards, as well as Irish Research Council funding.

Development Action 3: Grow the Population of Research Students

The University will continue to focus on research quality and enhancing the performance of research centres, including through a targeted increase in research income, with a view to enhancing the international reputation of research at the University—with consequent implications for student recruitment. Attracting international research talent is contingent on the quality of the research environment and the research outputs. The consortium considers that the overall increase in student market share (as indicated in the business plan) will also apply to research students. In addition, self-funded research students remain an important student cohort and their number will be expected to grow in line with market projections. These and the actions below will see the consortium meet the legislative criteria for the growth in the overall research student cohort.

The following actions will support growing the population of research students, in addition to the anticipated increases arising from an increase in market share:

- Continued roll-out of an extensive scholarship programme including university-funded and industry co-funded scholarship. The concentration of scholarship schemes will be in areas of research strength and strategic importance as indicated above;
- Cultivate and develop strong international partnership through joint PhD programmes and similar in areas of research priority, including the European University initiative;
- Ensure that any EU project secured (within reason) allocates funding for a PhD student and / or postdoc, in order to grow capacity quickly;
- Exploit SFI centre membership with additional PhD student allocations;
- Target the Marie Skłodowska-Curie Action Fellowships and networks specifically for PhDs;
- Expand the IRS fellowship applications and specifically the new SFI TU/IoT Frontier programme.

Development Action 4: Expand Collaborative Research Activity, Knowledge Transfer and Engagement in Areas of Regional Priority

Building on strong relationships to date, the University will engage a stakeholder Identification, Management and Translation approach that will enable the University meet its goal of expanding the co-creation of knowledge through partnership to meet the needs of society and industry at regional and national levels.

Stakeholder and Partner Identification

With regard to the Identification of Enterprise Stakeholders, the University will develop criteria for assessment and evaluation of SMEs, multinational companies, NGOs and other non-academic

organisations and agencies at regional national global levels that the TU will actively seek engagement with over a ten-year period in line with its growth trajectory. The planned impact is that the TU will be considered by society stakeholders as a responsive university that is communicative, adaptive to their needs in an inclusive, open and transparent manner. Measures of success will include actively connecting the research community, through engagement and communication forums, with all non-academic stakeholders in the south region and a significant percentage at national level, and that the majority of regionally based high-value knowledge-intensive enterprises commit to being actively engaged with the TU to shape its future research agenda. In addition, the University will prioritise participation and contribution in European and Global industry and enterprise networks to increase its broader European reach.

It is a priority for the University to identify and analyse academic institute and research performing organisations at national and European level that are aligned with the University's areas of research excellence to ensure greater integration with the European Research Area (ERA). The objective of an initial scoping exercise is to facilitate active TU participation in European and Global university networks and alliances particularly those that are aligned with the TU vision of being a high impact multi-disciplinary research driven education provider. The impact of this will be felt in an enhanced reputation of the TU at an international level that will consequently promote greater collaborative opportunities for the research community of the TU. Measures of success will include:

- Collaboration agreements with strategic academic institutions resulting from active network participation
- The creating of funded collaborative pathways for TUSEI researcher and student mobility to participate in research missions and graduate programmes across the European Research Area.

Stakeholder and Partner Management

TUSEI will lead research collaboration with industry, society and other stakeholders across the region. The management of all key stakeholders as the TU grows, matures and evolves will be imperative to ensure its sustainability over the coming 10 years. The immediate priority is to establish a stakeholder management structure that will be agile and flexible to adapt to the evolving needs of the TU and provide support and innovative engagement opportunities for both academic and non-academic stakeholders that will influence and affect the success of the TU. The impact here is that regional, national and international non-academic organisations will be more invested and embedded into the fabric of the TU at all levels and opportunities to access centres of research excellence within the ERA and global level will be opened up for TUSEI research community and its regional, industry and enterprise stakeholders. Measure of success will include:

- The creation of active interdisciplinary TU global value networks consisting of members of the TU research community, Enterprise Stakeholders and European Academic stakeholders;
- Collaborative research agreements between the TU and research centres of excellence across Europe;
- TU and stakeholder participation in key European Knowledge and Innovation Communities (KICs) relevant to both the high-value knowledge-intensive industries in the South-East region.

Engagement Translation

The realisation of the full potential of stakeholder engagement can only be achieved through the translation of stakeholder engagement into collaborations and partnerships at National and European levels. The short-term objective for the University will be to generate a high level of meaningful, measurable, and sustainable strategic partnerships and collaboration with both non-academic and academic stakeholders with an emphasis on inter-disciplinarity and impact. Through strategic stakeholder collaborations and partnerships, the TU will become a conduit for knowledge transfer and dissemination at a regional and national level. The collaborations will facilitate a two-way knowledge exchange process between the TU research community, our society and enterprise and community. Measures of success will include:

- The Integration of high levels of research and innovation activities with education and training as well as close collaboration with regional enterprise and industry partners supported by national funding programmes.
- An increase year on year in the number of European knowledge exchange and transfer activities across several salient sectors using for example via Marie Skłodowska-Curie Actions³⁵
- The proliferation of intellectual enterprise and brain gain into the region – scientists, inventors, researchers, innovators, highly skilled professionals, leading academics, as well as highly skilled public administrators.

It is envisaged that the proposed approach of Stakeholder Identification, Management and Translation will result in tangible and significant research outputs that will elevate the TU to the European table while enhancing its global connectedness. The approach will impact on TUSEI's international reputation that will consequently attract international postgraduate students to the region to carry out cutting edge research and innovation. This will further enhance knowledge exchange and contribution to the international community, placing TUSEI in the global research landscape. The impact on EU will also be a major priority for TUSEI, where this will target European R&D programmes such as the forthcoming "Horizon Europe". The aim is to utilise the inter-disciplinary research strength of TUSEI to support and complement existing EU research in collaboration with its stakeholders.

It should be noted that innovation is not only driven by STEM research or is related solely to research commercialisation; the complex challenge facing Europe and the world require that innovation ecosystems draw on non-scientific domains. The extension of the institutional innovation ecosystem across the University to embrace the whole range of activity and draw on the expertise from across the University's many disciplines will be a critical component in broadening the innovation base in the South-East.

The Regional Engagement Forum, described in more detail in Chapter 8, is a key instrument for the short-term realisation of the strategy outlined above.

Development Action 5: Enhance Research Infrastructure and Research Support Services

With regard to the enhancement of research infrastructure, the University will, in the first instance, form "Infrastructure divisions" in the areas of research priority that will work closely with all the

³⁵ Marie Skłodowska-Curie Actions: Research Fellowship Programme https://ec.europa.eu/research/mariecurieactions/node_en

other divisions to identify funding calls and research infrastructure requirements, to scope those requirements, and assist with proposal writing and infrastructure deployments upon success. In addition, the infrastructure division will directly engage with the ESFRI roadmap³⁶ and participate in European Research Infrastructure Consortiums³⁷, thereby providing reciprocal access to European wide research infrastructures to Research Institute (and other Irish / partner) researchers.

The creation of a University-wide Research Council will facilitate the governance of a substantially expanded range of activities and a larger researcher population. The University will also expand the existing research integrity function.

In order to develop a strong research and innovation structure within the TU, there is a need for strong research support structures. In addition to the full roll-out of HRS4R and associated research career structures and supports, additional developmental activities are described below.

- The HR team is an important element to ensure that, amongst other things:
 - There is a targeted recruitment of high-calibre research staff aligned to areas of research priority;
 - Staff induction is calibrated according to the research-related expectations of the University;
 - There is a systematic approach to attracting postdoctoral research fellows, and in particular partnering with key university HR departments to pass on new adverts for PhD students or postdoctoral fellows;
 - Calls for researchers to enhance gender balance and diversity are targeted – this also includes the development of proposals for submissions.
 - Work closely with directors of research groups, centres, and institutes to ensure that the specific skillsets are required of staff recruitment;
 - A programme is made available for visiting researchers and professors to spend periods of time within the University.
- The research finance department will be required to:
 - Closely monitor the finance health of the different groups, centres, and institutes, and to provide any support in terms of developing financial plans and projections;
 - Develop new short- and long-term financial models that can be used to support research students or postdoctoral fellows;
 - Develop an incentive/reward system (expanding on existing programmes) to allow certain contract R&D consultancy income to be used by the centres involved;
- Communications of research is a very important element in research structures for TUSEI. The output of research should be communications to the general public in order to allow people to be aware of the benefits of research based on public funding. Good communication will also enhance the national and international profile of research within the University.

³⁶ ESFRI Roadmap 2021 <https://www.esfri.eu/esfri-roadmap-2021>

³⁷ European Research Infrastructure Consortium (ERIC)
https://ec.europa.eu/info/research-and-innovation/strategy/european-research-infrastructures/eric_en

Consistent with the Declaration on Research Assessment (DORA),³⁸ which “recognizes the need to improve the ways in which researchers and the outputs of scholarly research are evaluated”, the TUSEI will broaden the range of measures taken to quantify research performance of faculty and staff and will calibrate future research growth planning and strategic decision-making accordingly.

5.8 Research Ethics and Integrity

The *Policy Statement on Ensuring Integrity in Irish Research*, 2nd edition (2019) has been adopted by all research performing organisations in Ireland.³⁹ In recognition of the importance of conducting ethical research and acknowledging the ethical governance and review of research, TUSEI will establish a research ethics and integrity framework which reflects and builds on national and international good practice. The framework will ensure that research is conducted according to the highest standards of practice, and with the minimal risk of adverse or harmful outcomes or consequences. Good ethical governance and review of research will be a core value and priority at TUSEI. A Research Ethics and Integrity Committee will draw membership across the academic community, including those with specific expertise in ethics, law, intellectual property and freedom of information and data protection. On-going training will be provided for all researchers and supervisors, and a structured programme of research training provided to all research students.

5.9 Graduate Studies

TUSEI will establish a unitary approach to graduate studies by integrating and building upon the policies and procedures of the two institutes. Graduate Studies will be based on a Support and Coordination Model, and will provide a streamlined central support function. It will work collaboratively with academic and professional staff across TUSEI, and will be responsible for:

- Developing, managing, monitoring and ensuring the quality of all postgraduate research activity and programmes;
- Working with schools to support the development of the structured PhD framework;
- Coordinating the implementation, administration and quality assurance and enhancement policies and procedures as it pertains to postgraduate research, and in association with Academic Council;
- Developing a conducive research environment for supporting research/doctoral students and monitoring their academic progress, including research training, research and integrity;
- Working closely with Departments, Faculties and Research Centres/Institutes in recruiting high quality research/doctoral students;
- Monitoring and enhancing the quality of research supervision working closely with Departments, Faculties and Research Centres/Institutes, including organising research supervision training programmes for potential research supervisors and appointed supervisors who have no prior research supervision experience;
- Supporting the strategic planning of advanced degrees programmes and the monitoring of consistency and academic standards across all higher degrees programmes.

³⁸ Declaration on Research Assessment (DORA) <https://sfdora.org/>

³⁹ Research Integrity National Forum (2019) Policy Statement on Ensuring Integrity in Irish Research, 2nd ed., http://www.sfi.ie/funding/sfi-policies-and-guidance/integrity/IUA_Research_Integrity_in_Ireland_Report_2019.pdf

In carrying out its functions, it will:

- Adhere to QQI standards and QA/QE requirements and HEA best practice guidelines;
- Have “Student First” as the guiding principle of all activity (in this context “Student First” should be understood as the primacy of learner quality (and equality) of experience in the fostering of enquiry, agency and opportunity
- Support the development of postgraduate education and postgraduate services through the central governance framework of School, Faculty and Academic Council.

The key principles of learner quality (and equality) of experience in the fostering of enquiry, agency and opportunity should inform TUSEI activity. The following were identified as unique features of the Graduate Studies function:


- Openness
- Community-led
- Regional connectedness
- Practitioner oriented

The principal tenet of this approach is one that is led by a learner focus on the quality of the overall experience. Consistent with its commitments relating to the student experience overall, the University will promote the attributes of being personable, inclusive and friendly in its approach to supporting postgraduate students, fostering peer networks and building its communities of research practice. These distinguishing features will serve to establish TUSEI as a distinct and unique postgraduate offering within the HEI system and differentiate it from geographically proximate competitor institutions.

In the initial stages, recruitment of doctoral students will be focused on leveraging the critical mass and scale of established centres of excellence described above. In time, capacity building measures, support and investment will be made across all schools so that staff are supported be part of research agenda for the new TUSEI Graduate Studies. There is also considerable scope to examine the value of introducing a range of professional doctorates that would reinforce the mission of the University with scoping work planned on two professional doctorates, in engineering (D.Eng.) and in education (D.Ed.). These could be modelled on the existing DBA programme and scope exists for potential knowledge sharing on process, model and execution to assist other schools in the initial transition phases.

Operation of Graduate Studies

Graduate Studies will operate as an enhanced service support and delivery model which is the basis of the current model developed by both institutes. To function properly, this strategy for growth will depend upon robust faculty structures to manage the validation and administration of a broad portfolio of modules and programmes. Graduate students will be associated with academic Schools/Faculties. This will ensure all graduate students have a sense of belonging to their individual discipline. The School/Faculty will have responsibility for academic quality assurance, supervision, monitoring progress, etc.



It is envisaged that within individual academic School/Faculty, programme directors for PhD programmes will be appointed with overarching responsibility for graduate students within a discipline or range of disciplines. These programme directors will remain directly linked to academic leadership within the discipline. This will ensure greater visibility of research students within the overall student cohort and greater opportunities for knowledge sharing between undergraduate and postgraduate populations. It is envisaged that programme directors in each academic area will have a “dotted line” reporting relationship to a University Director of Graduate Studies who will have oversight of graduate student administration and QA and will offer centralised support in training and development for graduate students.

Immediate attention will be focused on the:

- Consolidation of regulations;
- Consolidation of marks and standards;
- Integration of postgraduate provision into a new school and faculty governance structure.

Medium Term actions will involve:

- The expansion of taught modular provision within the research programme framework (participant numbers on structured PhDs, modular elements of Professional Doctorates);
- The development of new part time, distance and Professional/ industry based research programme options and opportunities to reach a new cohort;
- Infrastructural and capacity enhancements.

Engagement

For almost two decades the European Commission has been encouraging governments to increase their regional and national innovation capacities and capabilities in line with the EU goals. Since 2009 the focus has been on collaborative engagement at regional level through identifying regional smart specialisation and using the entrepreneurial discovery process (EDP) to create a dynamic environment for innovation and the continuous emergence of disruptive technologies. At the core of any innovation process is engagement; for innovation to be effective there must be holistic, open, interactive, collaborative and equitable engagement among the quadruple helix of stakeholders consisting of academics, local and regional government, industry/business, and residents/civic society organisations. The process of engagement means that all four elements must work in unison in a cohesive, collaborative and inclusive manner if a sustainable dynamic socio-economic environment is to be propagated. In support of the innovation ecosystem, a catalyst is needed to propose policies which can propel this environment and provide the requisite supports and systems to develop the ecosystem of open, inclusive and equitable innovation. The TUSEI is positioned to provide this catalytic role in South-East Ireland.

TUSEI's leadership and catalytic role in the sociocultural, socioeconomic and innovative capacity and capability development of the South-East derives from a half century of engagement with its region's quadruple helix actors. The engagement spans teaching and learning, widening access and participation, research and innovation, and civic and cultural activities. The foundation exists for a more holistic inclusive engagement with the region's quadruple helix actors in a spiral of continuous and sustainable development whereby civic and industry engagement (citizen science and innovation) with academia and government (civic university and eGovernment) leads to sustained socioeconomic and sociocultural development in regionally and nationally. TUSEI will work towards having an engagement framework which is agile, reliable and mutually workable for all stakeholders. This will be guided by best practice and built on what has been successful to date in both institutions. Having an Engagement Office/Unit in TUSEI which connects academia, research, stakeholders including alumni could form a solid foundation for ongoing active engagement in TUSEI. The Regional Engagement Advisory Group outlined later will play a central role in guiding the development of the TUSEI Engagement Framework.

6.1 Regional Engagement

Both Institute of Technology Carlow and Waterford Institute of Technology have strong on-going relationships with key stakeholders across the South-East region, nationally and internationally. TUSEI partners with organisations across education, community, industry, commerce, environment, sports, cultural and government bodies and the breadth of these engagement activities is illustrated in Figure 4 of the Appendix. These partnerships help to develop and strengthen access, up-skilling and re-skilling and other educational programmes (see Chapter 4) and strategic research priorities (see Chapter 5) as well as informing the social, cultural and international activities and impact of the organisations to meet the skills needs of the economy and society.

The *Technological Higher Education Quality Framework* (THEQF) sets out high-level internal quality assurance and enhancement principles developed by and for the Technological Higher Education sector. This framework defines engagement.

*Engagement happens where Technological Higher Education Institutes interact with stakeholders in a way that is planned and deliberately sought, designed to result in the generation of information to be used to inform programmes of education, research, or institutional strategy, reciprocal, and mutually beneficial to the stakeholder and the institution.*⁴⁰

Both institutes already work closely with regional economic stakeholders including major employers, industry clusters and networks (Table 2, The Appendix), not solely as means of determining skills, training and education needs but also to ascertain, understand and address industry's research, innovation and development needs as well as to provide targeted support to new enterprises.

Case Study for Teaching and Learning

The South-East Regional Skills Forum (SERSF), established in 2014 provides a platform for industry and education providers to come together to identify and address current and future skills needs. The Forum works with industry in the region to identify skills needs and with education and training providers to develop solutions to address these needs. Both Institutes are members of the Forum and have responded to the skills needs of diverse sectors including ICT, pharmaceutical, construction and hospitality, resulting in the creation of a number of new courses directly in response to industry needs, including: Certificate in Introduction to Automation; Higher Diploma in Business in International Financial Services; Manufacturing and Design Engineering; and a degree programme in Additive Manufacturing. This strong responsiveness to the needs of industry is a hallmark of our two partner Institutes.

Investment has been focused on structures, policies, programmes, infrastructure and networks which enable and fund collaborative ventures which have a direct impact and benefit on and for the region. Figure 5, Appendix 1, highlights existing structures and mechanisms. Amongst the structures and initiatives that set a solid foundation for the TUSEI to further enhance its inclusive, integrative and collaborative engagement processes in the region is the Technology Transfer Strengthening Initiative (TTSI) which, since 2009, is focused on improving capability and frameworks to transfer technology and know-how from publicly funded research centres to support enterprise productivity and job creation. In addition, there are four Technology Gateway Centres in the region (three in WIT and one in ITC) which, between 2018 and 2020, have collectively completed 932 projects for industry valued at €7.6 million.

Since 2012, another dimension of this solid foundation is the jointly delivered Enterprise Ireland regional enterprise support programme, New Frontiers. The programme is delivered jointly and in parallel in both Carlow and Waterford. Also the Research Sparks initiative provides a platform for the research communities from both Institutes to cooperate and network across departments,

⁴⁰ Technological Higher Education Association (2017) Part IV: Internal Quality Assurance and Enhancement of Engagement, http://www.thea.ie/contentfiles/1E_web.pdf

research centres and disciplines to initiate collaborative opportunities. From an industry engagement perspective, in particular the identification of regional skills and training needs, the commitment to the Regional Skills Fora programme in the South-East, Mid East and Midlands regions (set up in 2015) is of critical importance.

The new organisation will explore new and additional modes of collaboration between TUSEI and Údarás na Gaeltachta, particularly with regard to the development of innovation-led enterprise in Gaeltacht regions, consistent with national strategies relating to rural regeneration and regional development, including Project 2040. The University will be well-placed to support An tÚdarás in the delivery of its strategy which focusses on supporting high value enterprise and supporting capacity building for future enterprise development, given the demonstrable track record of success in creating high value employment driven by the Institutes in the South-East. TUSEI will utilise its resources to link Gaeltacht-based innovation centres and Gaeltacht-based high tech enterprises with the innovation ecosystem in TUSEI. This link will (a) delivery high-end entrepreneurship support programmes to Gaeltacht-based enterprises and (b) develop an appropriate structure and (soft) infrastructure to enable formal connectivity and collaboration between the network of Gaeltacht-based innovation centres and TUSEI's ArcLabs/Dargan Research and Innovation Centres for mutual benefit.

Arts and culture

Historically universities have been repositories for cultural artefacts, have acted as venues for cultural activity, and have impacted on local cultural life through student cultural activity. Inclusion of humanities within a technological university provides us with the opportunity to reconceive the 21st century university, uniting education, research and the praxis of transforming society and self.

TUSEI will perform a range of roles within its communities; its role as a regional anchor will extend across the cultural as well as the economic sphere. The university will build on the extensive collaborations between the existing institutions and cultural activity within the South-East and nationally. The region hosts Arts festivals in Carlow, Waterford, Kilkenny and elsewhere while the Opera Festival in Wexford attracts an international audience. The region also boasts the Lismore Music Festival, the Borris House Festival of Writing and Ideas as well as theatre productions in numerous venues. Staff and students have been involved with all these activities and many others, and the current institutions maintain important formal relationships with the local authority Arts Offices as well as cultural institutions across the South-East. WIT is also supporting, through research and collaborative activities, the development of the Cultural Quarter in Waterford. Visual Carlow is a partner with IT Carlow in the Arts and Humanities Enterprise Hub (AHEH), an Erasmus+ Knowledge Alliance funded project, for instance. The project brings together an alliance of 14 partners from 7 European countries working together to improve the entrepreneurial capacity of arts and humanities students. WIT partners with Garter Lane Arts Centre, Waterford and GOMA, Waterford on a range of projects.

The partner institutions maintain significant academic portfolios and, in some cases, carry out research in Arts and related domains. WIT offers the only Liberal Arts programme in the Institute of Technology sector and offers disciplines such as English Literature and Theatre Studies. WIT also offers multi-media, music, art and design degrees. Research students have also been enrolled in these discipline areas. The WIT music school has been providing music education in Waterford city

and environs for over 30 years. WIT also runs an MA in Arts and Heritage Management. The visual arts are catered for on the IT Carlow campus in Wexford through the BA (Hons) in Art and BA (Hons) in Visual Communications and Design programmes. These programmes support extensive civic engagement through art and film to Wexford communities, with exhibitions in public and community settings, for instance, Wexford Hospital, Wexford Arts Centre, Wexford Library, and Wexford Co. Council spaces. The main Carlow campus brings together art and technology in its BSc (Hons) in Interactive Digital Art and Higher Diploma in Arts in Digital Media Design and its MA in interaction design. Many of the staff, students and graduates from both Institutes have contributed to cultural endeavours in the region over many years. The Institutes are, in addition, well aware of their role in promoting Irish through Seachtain na Gaeilge and other measures which encourage greater use of the language. WIT is especially conscious of the importance and proximity of the Gaeltacht in Ring. Its Higher Diploma in Arts, Television and Media Production satisfies broadcasting criteria of TG4 and RTE. It was developed by WIT and Nemeton TV in partnership with Údarás na Gaeltachta.

Cultural Tourism is key to the South-East region. The Wexford Campus BSc. (Hons) in Tourism and Event Management engages with key cultural and tourism sector organisations in the South-East including festivals (Wexford Opera Festival, The Spiegeltent, Wexford Maritime Festival), and Heritage tourism including Ireland's Ancient East (National Heritage Park, Johnstown Castle). The Wexford campus also provides part-time programmes in Irish Historic House studies, Irish Architectural History and Irish Archaeology. Similarly, WIT supports Tourism and Hospitality through its programmes in this area, and provision of support in research. For example, an ongoing project involving WIT is developing an eco friendly maritime gateway tourism attraction based around pre-historic Ireland and its first settlers in the Waterford Estuary area.

The TUSEI will extend its impact through a more extensive portfolio in the Arts and through enhanced and strategic collaboration with key Arts organisations in the region. Moreover, the university will be aware of its key role as an interface between its communities and the cultural sphere and as an immediately available access point for the wider public to cultural activity. Through the activities of its students and staff, and through formal relationships, the university will strongly promote local culture and help build cultural capital within the region.

Smart Specialisation

Smart specialisation and regional innovation strategies help build competitive advantages in sectors and research domains where regions possess existing strengths, and leveraging those capabilities through diversification into related technologies and industrial sectors. The South-East entrepreneurship and innovation ecosystem is multi-sectoral, but the region's enterprise, innovation and education policy approaches need to be synchronised through the development in association with public and private sector partners of a regional smart specialisation strategy identifying priority sectors and providing the basis for vertical sector policy making. TUSEI will be a catalyst in articulating the industrial, enterprise and innovation policy that addresses the issues of education, fostering innovation, digital transformation, investment, infrastructure, internationalisation and circular economy, supported by an enabling business environment to facilitate a progressive entrepreneurial ecosystem creating sustainable competitive advantage based on disruptive innovation.

Case Study for Regional Engagement

The Enterprise Ireland funded New Frontiers Programme is Enterprise Ireland's national entrepreneur development programme for early-stage start-ups. The programme operates out of sixteen campus incubation centres across the country. The Programme provides support for the acceleration of early stage businesses which have strong employment and growth potential. Both partner Institutes have successfully co-operated to deliver this programme which is now co-located at the Enterprise and Research Incubation Centre in both Institutes. Both partner Institutes have co-operated in the delivery of the programme to deliver the best outcomes for start-up and early stage companies throughout the region. The New Frontiers Programme has created 144 jobs in the South-East region since 2016.

6.2 TUSEI Regional Engagement Advisory Group

The TUSEI Regional Engagement Advisory Group (REAG) has been established (January 2021) as a structured framework for regional engagement activities (see Appendix Section 6.6). Chaired by the two Institute presidents, the REAG aims to intensify and bring about a step-change in the current level of engagement by adding value to the many individual initiatives. It will encourage holistic engagement between TUSEI and the breadth of business, social and civic organisations across the region – see Tables 3, 4 and 5 in the Appendix. Specifically REAG will support and advise TUSEI consortium, in: the creation of a framework for on-going structured and effective dialogue, collaboration and innovation between TUSEI and key stakeholders across the region; identifying appropriate shared objectives, rooted in a robust and shared analysis of regional needs and opportunities, and co-created with regional partners; identifying how regional engagement can be designed from the outset into TUSEI processes of teaching and learning, research and innovation and identifying opportunities for TUSEI consortium and the regional stakeholders to co-commission activities and deliver outcomes for developing the sustainability of the region. Membership includes Senior representation from major employers, industry representative groups, economic development organisations, regional ETBs, and South-East local authorities.

As a single organisation TUSEI will further leverage existing engagements through:

- A unified and defined strategic direction with focused innovation and impact for driving regional growth;
- Leveraging of collective supports, resources, expertise and infrastructure which may be replicated in target areas;
- Having an enhanced reputation in and access to the international higher education landscape due to scale;
- Prioritising and capturing the full impact of TUSEI engagement in areas and metrics currently under-measured, e.g. Social, political, and cultural;

- Enhancing more embedded modes of connectivity and dialogue between combined communities and key policy-makers;
- Increasing internal networks that initiate new opportunities for engagement.

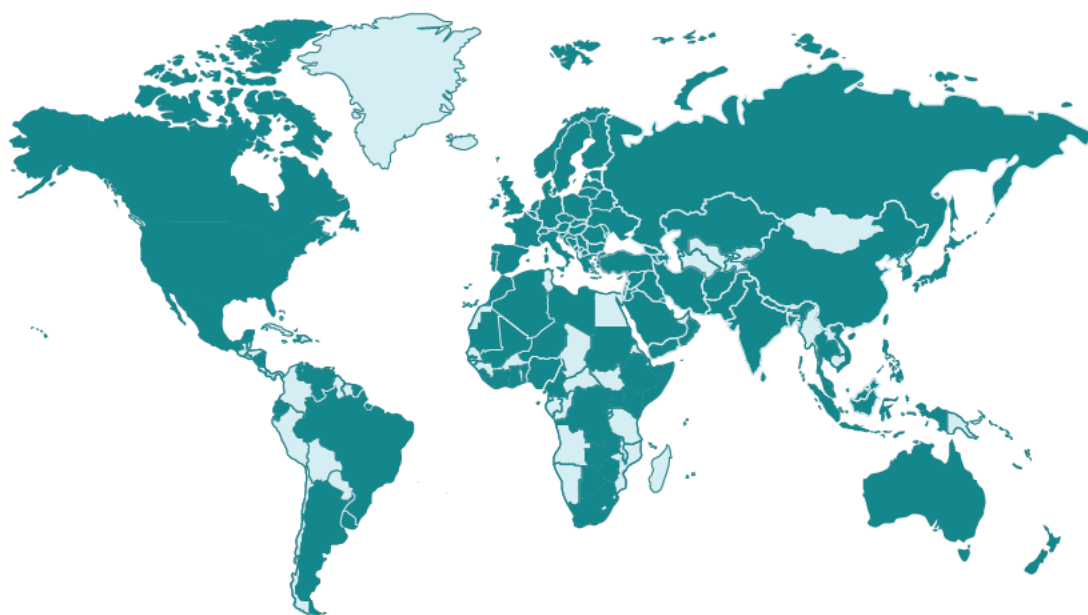
6.3 Internationalisation and International Partnerships

The University will aim to create and sustain meaningful European and global partnerships that drive regional attractiveness to talent and investment as well as enhance institutional research and teaching activity. The University, in this respect, is a crucial agent for realising regional development policy; the regional *Spatial and Economic Strategy* makes a regional priority of “Building an inclusive outward looking international region on the global stage.”⁴¹ The University will achieve these goals through involvement in high-quality international teaching, research and professional networks in areas of high strategic importance to the institution and the region and through enabling inward and outward international mobility for staff and students. Building on the extensive network of international partnerships already in place, and the long tradition of international student recruitment and international faculty and student mobility, the TUSEI will aim to enhance the international positioning of the University to achieve both institutional and regional goals.

TUSEI is currently undertaking a strategic review of all activities which come within the remit of internationalisation. The emphasis is on developing a comprehensive university-wide approach to internationalisation beyond mobility and cognisant of future trends in the post-pandemic era, and the value and contribution of internationally-connected education and research to the needs of the region. The longstanding strengths of the Institutes in recruiting and fostering international learners and collaborating with research partners will be a key enabler in the enhancement of a broader understanding of internationalisation (see Figures 9 and 10). Our attractiveness to global learners will be an asset to the continuing development of a multicultural region that offers an outstanding quality of life and an economic future to all.

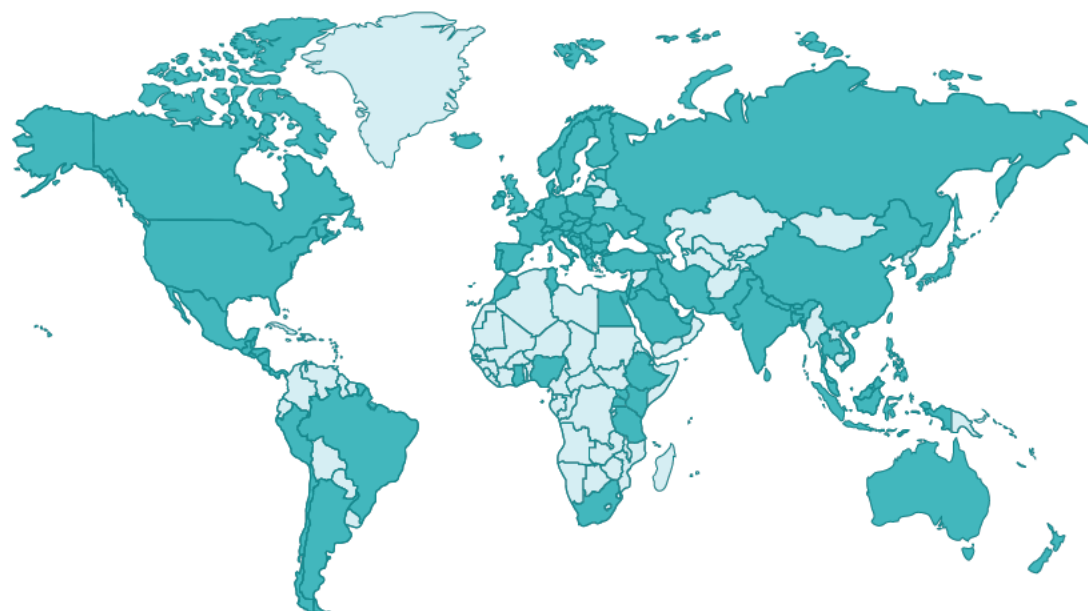
⁴¹ Southern Regional Assembly (2020) Regional Spatial & Economic Strategy for the Southern Region, <https://www.southernassembly.ie/regional-planning/rses>, p.24

Figure 9 Nationalities of all learners at TUSEI, 2019-2020



Note. Map showing nationalities of all learners at TUSEI (Institute of Technology Carlow and Waterford Institute of Technology combined) in 2019/2020 including Irish resident and incoming international learners. Data source: SRS

Figure 10 TUSEI Researchers Collaboration using Scopus 2015 to 31 March 2021



Note. Map showing the countries (including Ireland) that TUSEI researchers have collaborated with on Scopus indexed publications from 2015 to 31 March 2021 (Data source: SciVal data downloaded on 7th April 2021 & included Scopus data up to 31st March 2021. Time period: 2015 to present. © Elsevier B.V.)

The University will seek to draw on current activities in developing its internationalisation and partnership strategy. Examples of future activities will include:

- Inclusion of study abroad or internationalisation elements on a number of academic programmes, including mandatory internationalisation elements on some

- Establishing academic school/faculty-specific collaborative international partnerships
- Advancing activity within the Erasmus + programme beyond the traditional mobility model
- Enhancing relationships with high performing international education actors in Asia, North America and Europe in areas of strategic priority
- Establishing pathway opportunities for international students to complete degrees and progress through graduate programmes
- Delivering degree programmes in China and organising training initiatives for staff from partner universities in China
- Enhancing institutional performance in European competitive funding calls and in the process extending and deepening the range and quality of European academic and industry partnerships
- Involvement in initiatives such as the European University Initiative

A specific example of a current international focused project by the TUSEI partners that can guide future development is TEaM Rural. The programme is aimed at enhancing the local development capacity by developing entrepreneurially minded individuals to build successful businesses in a rural environment. This initiative works on the premise that a global perspective is a critical aspect of any rural development policy. The programme has international members on its advisory board, provides international trade trips on the entrepreneurship development programme, and is developing its research agenda through an international network of research centres. The project uses the ERASMUS for young Entrepreneurs programme to disseminate knowledge concerning the networked approach to entrepreneurship and economic development by placing some of our Erasmus exchange students with rural entrepreneurs to immerse them in start-up or scale-up companies. The students report on their outcomes through the assessment of their modules and so complete the link between learner mobility, programme content, action learning, and module assessment. Partners include UWTSD (University of Wales Trinity St David), Jyväskylä University of Applied Sciences (JAMK), Tampere University of Applied Sciences (TAMK), Bishop Grosseteste University, Lincoln UK, and Mondragon University, Spain.

Another TUSEI engagement at an international level is the European ENGAGED University, the focus of which is to bring together the considerable strengths of six longstanding, complementary types of HEIs in an ambitious effort to re-conceptualise the nature and function of a higher education institution, aiming towards establishing a new European University. The other partners in the consortium include: Hanze University of Applied Sciences (The Netherlands); Hochschule Bremen City University of Applied Sciences (Germany); Tampere University of Applied Sciences (Finland); Alexandru Ioan Cuza University of Iasi (Romania); and Polytechnic Institute of Braganca (Portugal). The overall aim is to build an alliance of truly engaged HEIs to establish the future-oriented European ENGAGED University. This will seek to create a more future-oriented generation of students through innovative, flexible and diverse educational and challenge-based research systems which will contribute to the sustainable development of regions and Europe.

Within TUSEI, international mobility and an international outlook will shape the ethos of the organisation and inform campus life both from an academic and cultural perspective. As a globally engaged organisation, TUSEI will continue to recognise its responsibility to educate for sustainable development and will remain committed to the principle of equal access to life-long education and

continue to facilitate increased participation, particularly from under-represented groups, through the provision of enhanced opportunities and supports and the development of new pedagogical tools and pioneering equitable and innovative pathways.

To this end, a framework for a TUSEI Internationalisation strategy is in development which will encompass a vision and set of principles, linked to the University's vision and values. Proposals include:

- Ensure that the importance and relevance of internationalisation is made explicit in all key TUSEI policies and strategies, is incorporated into planning processes and is delivered through leadership and line management routes across academic and corporate services.
- Progress the internationalisation of TUSEI curricula in terms of content, pedagogy, assessment processes, learning outcomes and international mobility, providing students with the opportunity to engage with relevant international and intercultural learning and to develop global perspectives in the context of their discipline. This will include a review of all academic programmes under the heading of internationalisation, and integration of Sustainable Development Goals into the curriculum, at new course development or programmatic review stage
- Develop student recruitment processes to create vibrant, diverse international and multicultural student community, actively participating in campus life and being valued for the way in which they enrich classroom and campus culture.
- Support an international and multicultural campus culture at all TUSEI locations, including the celebration of international aspects of university life through events, displays and activities which support internationalisation at home and are widely communicated throughout TUSEI. The international culture will be reflected in everything from multicultural clubs and societies for staff and students to careers services information to catering to international events, displays and exhibitions.
- ITC has a number of clubs and societies aimed at bringing our many nationalities together. A main one would be our "Cultural Shake Up" society. In addition to this the SU has a dedicated international officer who works with the international office on student led events e.g. Diwali, Chinese New Year, Eid, etc. There is also an annual International Day at which our students demonstrate and celebrate their home culture.
- Provide systems to support students from other countries and diverse cultural backgrounds as well as supports for international mobility and for a staff development programme to support internationalisation.
- Continue to support and develop strong, sustainable and well-maintained international partnerships, which align with national policy and university strategy, providing global opportunities for student and staff engagement through research, staff and student exchange or placement, benchmarking of performance and a bilateral programme of visiting academic and support staff.
- Embrace the concept of "internationalisation at home" advocating the many ways to internationalise programmes which do not necessarily imply mobility through the many approaches which can be used to bring the global experience into the classroom.
- Motivate and empower learners to become informed active residents who act for a more sustainable future.

The University Experience

7.1 The Learner as Co-Creator

Students are valued members of our University community, and it is important that this value is recognised by supporting student participation in all aspects of institutional life. The student, institution, and wider community benefit when students are actively engaged in institutional decision-making in terms of the key domains of governance and management, teaching and learning, research and quality assurance. Students are more likely to actively engage when they are involved in the structures and processes of TUSEI. The University will recognise that student members on committees may have different life experiences and areas of expertise but all are equally valued in the ongoing evolution of the institution. It will be the responsibility of the institution to provide the necessary supports to the students as to enable them to fulfil their role.

Our prospective and current students have a central role in institutional decision making and governance through their involvement in key committees e.g. Academic Council and its subcommittees, programme boards and working groups. This engagement drives the concept of student as co-creator. Through proactive quality assurance and enhancement measures, we will empower stakeholder feedback for programme development, delivery and review. In review processes, we will engage and involve learners. Examples of these include:

- In Programme Approval, learner input will be enabled through consultation in programme design and participation in evaluation panels.
- Academic Programmatic Reviews will require significant involvement from students of all cohorts in surveys, focus groups and panel membership.
- Service User Evaluations and student feedback will be systematically incorporated into Professional, Management and Support Services Reviews.
- TUSEI will embrace innovative teaching and learning strategies which value active involvement from the students, particularly in the area of assessment and feedback.

7.2 Student-Centred Experience

A critical aspect for all universities is the sense of value, loyalty and emotional connectivity learners have with the University. The more positive the student experience, the greater the emotional connectivity with, and loyalty to, the University. As stated in the mission statement, TUSEI is committed to a “student-centred philosophy” which will “deliver a strongly student-centred experience, which focuses on equality of opportunity in relation to diversity and inclusion” and “create and optimise a multi-campus learning environment, with a presence in the major regional population centres, delivering a quality student experience aligned to guiding values and principles.”

Parity of esteem between full-time and part-time learners is one of the strategic considerations for all student services supports in the TU. Elements that enhance the student experience and help develop student identity include peer mentoring and student-led orientation which provide opportunities for interaction with peers and academic staff. In addition, there are opportunities for personal and professional growth through civic engagement, work integrated learning and the feedback process. New governance and academic structures will focus on creating a TUSEI ecosystem that is conducive to providing students with memorable, positive and engaging student experiences consistently across all campuses.

Across sports clubs and societies every effort is made to ensure that all students have an opportunity to partake and to build a sense of belonging. Student Services including the Careers Services, Chaplaincy, and Medical Services will be available to accommodate all students, part-time and full-time, to ensure parity of esteem.

Similarly, for Library Services, the TU will offer library opening hours, services and facilities to accommodate all students including undergraduate and postgraduate, full-time and part-time learners, as well as providing access to thousands of resources available from our online library.

7.3 Students' Union

The TUSEI Students' Union will represent all students on all aspects of student life. A Student Charter, covering topics related to the Students' Union and student life in general, is being drafted for all students in the TU. In addition, a proposed structure for the Students' Union is being prepared with clearly defined processes relating to student elections, the Class Representative systems and all the appropriate training and support required for same. The Students' Union will play a central role in university life to ensure appropriate student representation and will foster a culture supporting all students across our multi-campus environment. For further information on the Students' Union proposals, see the Appendix, chapter 7.

7.4 Multi-Campus Environment

The Technological University will be a multi-campus organisation providing academic programmes and engaging in other activities across multiple sites throughout the South-East. In part at least, the multi-campus nature of the University will be linked to the organisation's commitment to meeting regional needs. Guaranteeing the quality and equity of the student experience across multiple sites is central to the TU and its overall resourcing. A typology of the existing campuses of the TU is being developed with an overview of the range of affordances each campus can bring to the teaching, learning, research and engagement activities.

7.5 Digital technology and the Student Experience

As indicated in our mission statement, TUSEI will be “technologically cutting-edge by leveraging the use of technology to break through the restraints of time and space to support learning, teaching and engagement in a multi-campus, globally-connected organisation”. We will “optimise the use of technology in redefining the student experience, increasing accessibility and generating and disseminating knowledge to provide regional, national and international impact.” What will be “cutting-edge” about the use of technology in teaching and learning in the TU, is not what is used by way of technology, but more how technology is used. In many other HEIs, virtual learning platforms are often used for passive content consumption, rather than constituting an integral part of the organisation’s learner engagement strategy. In the TU, technology will be used as an enabler for promoting more flexible approaches to learning, and this digital connectivity will, in turn, support a more inclusive, accessible and equitable learning environment for all learners across all campuses. Technology will support accessibility, both in terms of geographic location and in respect of learner abilities, ensuring that all learners will have engaging and empowering learning experiences. As such, technology will be viewed as an enabler, as the TU will seek to ensure that all learners are afforded the opportunity to engage in digital teaching and learning, irrespective of their personal circumstances. The TU will actively endorse the “digital provide” rather than the “digital divide” principle.

Linked to the provision of “cutting edge” technology will be the provision of different learning spaces in which collaborative student activity is possible, both on and off campus, facilitated by digital connectivity. This will impact on the design of future buildings but also the conversion of existing buildings and in particular, library and social learning spaces.

7.6 COVID-19 and Digital Technology

Leadership amongst all staff members was clearly demonstrated in our responses to COVID-19 when entire campus communities pivoted online in an unprecedented way. This response was possible in large part due to the innovative commitment of all staff in terms of finding new ways to support colleagues and students in the provision of teaching, learning and research activities remotely, including the provision of IT services, library services, student services, and remote assessments.

Through the crisis, staff have leveraged their existing skillsets and have embraced pedagogically-driven classroom technology, not merely as a support mechanism, but as an integral part of teaching and learning and for the overall enhancement of the learner experience. This has created the potential for further development in terms of understanding and recognising the positive impact that technology can have in creating a flexible learning environment and as an effective tool in transformative learning. Equally, the pandemic has shown that technology can allow for greater levels of international collaboration, ensuring that effective practices and authentic learning experiences are created and embedded within our curricula in the future. Both staff and students, by necessity, have come to appreciate the positive dimensions to online delivery, and both will be able to engage over the longer terms with an increased confidence and digital literacy. The impact of COVID-19 on all aspects of the learner experience has been profound.

Where the required resources are available, the flexibility of remote learning may have positive impacts for the learner. These include the ability of remote delivery to mitigate limited physical space on campuses, and the possibility for students to manage their time and competing demands differently by engaging with asynchronous learning where on-line teaching and the students' experience of that lecture do not necessarily occur at the same time. However, given the disadvantaged circumstances of some students, careful monitoring of student experience will be required to confirm that they are able to benefit from asynchronous learning. Similarly, the absence of students on campus has brought into focus the importance of the social dimension of learning and in the case of online learning, the lack of physical, social engagement with peers can represent an acute loss for students. At the same time, the remote provision of education may equally broaden opportunities for engagement for some students. In future, without the additional burdens caused by the pandemic, there are clearly elements of blended learning which will undoubtedly enable broader participation for many and this will be considered as part of the new organisation's teaching and learning philosophy which is currently being drafted.

7.7 Student Support Services

Students enter our Institutions from various backgrounds, both personal, social and educational, and avail of a variety of supports. Our vision is for a student-centred and holistic approach to supporting access, widening participation and creating a sense of belonging and connectedness for students, by supporting each of them through their own individual journey and by assisting them to support each other.

There is huge breadth and depth to ongoing initiatives which are provided by a wide range of academic and professional support services departments working in unison. Both Institutes are proud of their work with Further Education and Training providers in mapping pathways for student progression from FET to HE and, in addition, both offer non-traditional entry routes for mature learners. Recognition of student commitment to sport or academic achievement is also acknowledged through the awarding of scholarships. Our vision for other academic contributions to student supports will be the curricular infusion of mental health and well-being across all academic disciplines through the implementation of the National Student Mental Health and Suicide Prevention Framework, and through engagement with disability liaison staff within the various academic departments.

Students can avail of a vast range and number of supports within the area of Student Services. Such supports include, access, disability, learning support, medical, counselling, careers, chaplaincy, retention, engagement and financial supports. Student support services are provided by qualified professional support services staff on both campuses. Our shared vision is to continue to provide a diverse, inclusive, student-centric experience across all campuses of TUSEI. It will facilitate innovative and creative ways to support the continuous growth and personnel development of our students through membership of sports clubs and societies and through engagement with voluntary organisations. The shared goal is to equip students with core competencies and attributes that will enhance their personal growth, nurture their interest in lifelong learning and extend their connection with the university post-graduation.

The TUSEI Library Service is committed to the delivery of a multi-campus distributed library service, meeting the needs of staff and learners across all our campuses. The Library will expand its teaching, learning and research supports for all TUSEI learners and continue to partner with colleagues across academic departments, Centres for Teaching and Learning, Research Units, Student Support Services and other relevant areas for all such activities. The new library will explore how a library information literacy framework mapped to graduate attributes, for example, could be embedded within curricula. It will also promote advocacy for Open Research and Open Access via policy supports and a combined Institutional Repository. This provision will be in keeping with key strategic goals around learning opportunities from NQF levels 6-10, lifelong learners and alignment to research specialisms and growth areas.

7.8 University Staff

Staff Professional Development

All staff will play key roles in leading and developing the new University. Academic staff are responsible for academic leadership, academic management and development, delivery of the academic programmes, supervision, research and research funding functions. Professional, managerial and support staff are responsible for managing, developing, and advancing key aspects of university life including, but not limited to, Finance, Capital Development, Human Resources, Computing Services, Teaching and Learning, Library Services, Student Services, Sports, Estates, Academic Administration, Research and Commercialisation and Internationalisation. Together, they inform and influence the University experience and all staff will be valued and have a role to play in the new University. Teams from across the Institutes are working together to align existing services into unitary services across TUSEI. This involves extensive work, not just with colleagues from across both Institutes but also with key stakeholders both internally and externally.

In developing the University, continuing professional development opportunities for all staff, will be critical if the challenges of creating a high performing TU are to be successfully met. TUSEI is committed to supporting continuing personal and professional development of all staff, PMSS and academic staff, which will cover the widest range of education and development. Building on current institutional expertise and experience, the TU will recognise and understand the value of staff members' skills, knowledge and competencies and therefore support the establishment of a strategic staff development structure which would empower, support and enhance staff development for the new TU. This would include clearly articulated progression paths, promotion systems and enhancement of staff qualifications. TUSEI will also ensure that all staff have access to the necessary support in terms of online pedagogical knowledge and skills. The University will provide a coherent basis to drive teaching and learning innovation and enhancement, by bringing together teaching and learning expertise, institutional priorities and dedicated funding to support our strategic vision. Professional development opportunities will also be available to staff from our partner institutions abroad, ensuring that our engagement with them is strengthened by providing them with equal opportunity to our professional development offerings. This, in turn, supports the learning experience of international students who may study at the University as part of their own programme of study. This will also help to strengthen our engagement with our partners. The University will establish a consistent approach to our support offerings and create and curate quality resources available to all staff.

Academic Staff and Researcher Development

TUSEI will recognise the importance of ongoing staff development, education and training and provide a range of opportunities for continuous professional development (CPD) for academic staff, including in relation to teaching and research. Staff are encouraged and facilitated to pursue advanced qualifications, including doctorates. Many faculty also have professional accreditation with the relevant bodies associated with their disciplines.

The approach to staff development in teaching and learning is aligned to the *National Professional Development Framework for all Staff Who Teach in Higher Education*.⁴² Staff professional development in teaching is supported in multiple ways, both formal and informal. With regard to formal education and training support, both Institutes provide accredited education programmes, including, in both Institutes, a Masters in Teaching and Learning, as well as a range of shorter accredited courses. Many staff have availed of these programmes. The Masters and other programmes provide CPD in areas such as

- Practical Pedagogy and Applied Pedagogies
- Reflective Practice in Education
- Content and Interaction for Teaching and Learning On-Line
- Blended Learning
- Curriculum Development and Assessment

With regard to informal support, the Institutes provide access for staff to an extensive programme of workshops, seminars, and masterclasses, many supported by the National Forum for Teaching and Learning. The Institutes sustain communities of practice in support of staff teaching and, especially from early 2020, with a specific focus on support for online teaching and remote learning. The Institutes have invested in professional instructional design expertise as well as other supports to facilitate and develop online teaching in particular.

With regard to research, formal training in research supervision is provided in the form of accredited modules as part of a wider Masters programme in Teaching and Learning. In addition, over the last number of years work has been undertaken through the Irish Universities Association (IUA) and the Technological Higher Education Association (THEA) to develop a Researcher Career Development and Employment Framework which aims to reinforce the achievement of the national policy objective to optimise the impact of human capital development in our research system. TUSEI will continue to work closely on the implementation of this Framework once nationally approved. It is envisaged the new National Researcher Career Development Framework will incorporate clearly defined levels within the researcher career path with a requirement for continuous professional training and development throughout the post-doctoral and senior post-doctoral stages with on-going training recommended at all levels. The TUSEI will align its commitments with regard to research career development with this new framework as well as with the current EURAXESS HR Excellence in Research Award principles.

⁴² National Forum for the Enhancement of Teaching and Learning in Higher Education (2016) *National Professional Development Framework for all Staff Who Teach in Higher Education*, <https://www.teachingandlearning.ie/publication/national-professionaldevelopment-framework-for-all-staff-who-teach-in-higher-education/>

A significant investment has been made in Researcher Development with the launch of WIT's Broaden Your Horizons (BYH) Researcher Development Programme. Based on the skills and experience that national and international funders expect researchers to develop during the course of their research career, the programme is delivered collaboratively by internal and external specialists, offering a tailored suite of workshops, courses, events and resources. The programme is informed by Vitae, as well as Researcher Development Programmes in other International Institutions, and the European Charter for Researchers⁴³ and the Code of Conduct for the Recruitment of Researchers.⁴⁴ All programmes within the BYH programme extend across both TUSEI partners, many of whom have actively engaged in the training programmes and workshops most recently the EPIGEUM Online Researcher Development courses on Research Ethics, Research Impact, Supervising PhD Candidates and Research Integrity. This programme will be enhanced, improved, and developed into the future to reflect the needs of all researchers. Introduced in 2019, the Odyssey scheme aims to pair experienced researchers (mentors) with colleagues at an earlier career stage (mentees), to provide guidance, specific skills and knowledge that will enhance the mentees' career and personal growth during their research journey at WIT. Plans are underway between both ITC and WIT to run a joint Odyssey Research Mentoring Programme.

⁴³ EURAXESS: The European Charter for Researchers <https://euraxess.ec.europa.eu/jobs/charter/european-charter>

⁴⁴ EURAXESS: The Code of Conduct for Recruitment <https://euraxess.ec.europa.eu/jobs/charter/code>

Establishing TUSEI

TUSEI will be a unified and unitary organisation with a single Governing Body, Academic Council and Executive team which will ensure integrated, coherent and effective governance of academic, administrative and management matters across all the TU's campuses. This chapter describes the next steps in developing that future, unitary organisation and the administrative, management and governance arrangements planned to ensure effective, efficient and integrated management of the University.

8.1 TUSEI Formation Project

The creation of the TUSEI is the single biggest endeavour in the histories of the applicant organisations and involves the transformation of the organisations into one organisation, as well as into an organisation with the scale, breadth and performance of a university. This transformation is complex and multi-faceted and a systemic, programmatic approach is necessary to establish the new organisation successfully and to realise the organisational ambitions outlined elsewhere in this document.

Work on realising the formation of TUSEI has been ongoing since 2012, with periods of varying levels of activity over this time. The current phase of the project builds on work undertaken previously and has brought a renewed focus and intensity to the process. It is worth noting that the earliest phase (2011-2017) focused on developing contacts between both Institutes which resulted in the agreement of two Memoranda of Understanding (2012-2014) and (2017-2020). These MoUs underpinned the development of a vision and implementation framework for TUSEI which crystalised many of the issues and thematic areas that would subsequently be addressed in the process of creating a new Technological University. These thematic areas formed the basis of a change programme that was scoped, designed and structured in a detailed process (Q1-Q2 2019) facilitated by an external consultant and involving senior executive input and extensive involvement across multiple thematic areas by faculty and staff—upwards of one hundred staff were involved at that point. This programme was further distilled into a series of increasingly granular and appropriate workstreams, which forms the basis of the work in phase 3 of the project.

Alongside this programme, a governance and management structure was put in place comprising a TUSEI Steering Group in 2017 and a TUSEI Project Office in 2020. Contacts between staff of both Institutes also grew ever closer and a series of pilot collaborative projects was implemented, to build relationships and confidence and nurture the seeds of collegiality and cooperation – see Table 10 in the Appendix. All of this work, undertaken since 2011, represents structured, steady progress that has laid the foundations for the current phase of the project, which will see the realisation of TUSEI.

A formal and effective governance structure for the project, the key elements of which are outlined below, has been successfully established, to support the new organisation in achieving Designation Day readiness and to support the process of change management, as the two organisations move to operating as an integrated and coherent single entity.

Joint Governing Body Steering Group

The TUSEI project is overseen by the Joint Governing Body Steering Group. The Steering Group provides the oversight and strategic direction necessary for TUSEI project to achieve a successful outcome within the framework provided by the 2017 MoU – “Towards a Technological University of the South-East”. The Steering Group oversees the work of the Project Office and associated project delivery structures and approves key decisions regarding the direction of the initiative. The Steering Group comprises the chairs of the Governing Bodies of each Institute, Presidents of each Institute, student representatives, an academic staff member, a professional services / administration staff member and two other Governing Body members from each Institute.⁴⁵

TUSEI Project Office

A dedicated Project Office has been established to coordinate the TUSEI project. The role of the Project Office is to provide support to the project's workstreams (Table 7 in the Appendix) and to coordinate the wide range of activities across the project. The work of the Project Office is overseen by a Project Executive Director and comprises Academic Adviser, two Project Directors, Engagement Manager, Data Coordinator and eight workstream Coordinators. The Project Office provides support to the project's eight workstreams and 33 working groups (Table 7 in the Appendix). The office, through the Project Executive Director, liaises closely with Presidents and Governing Body chairs in both Institutes and is accountable to the Joint Governing Body Steering Group.

The Institutes' Presidents

The Presidents of the Institutes are the accountable persons for all elements of operation and management and exercise a central leadership role in the TUSEI project. This is reflected in their reporting to their respective governing bodies, in their membership of the Joint Governing body Steering Group and in their engagement with external stakeholders. In addition, the Project Executive Director and the Academic Adviser meet with the Presidents each week to inform them of developments, seek their views and advice and resolve outstanding issues. The Presidents also attend the meetings of the Leadership Group on a regular basis.

Project Leadership Group

The Project Leadership Group comprises the leaders of all eight workstreams in the project. Each workstream is led by two nominated members of the Institutes' Executive (one from each Institute) and in the case of Workstream 8 (Students' Union), by both Student Union presidents. The Project Leadership Group meets on a weekly basis, to provide progress updates for their workstream and to identify and discuss interdependencies across workstreams and areas of potential overlap, thus ensuring coherence across the work of the entire project. The Leadership Group is focussed

⁴⁵ The Terms of Reference are available in the Appendix.

on delivering the multiple outcomes to create the Technological University and each workstream Leader has direct accountability to the Steering Group for their workstream. Terms of Reference are included in the Appendix.

Joint Executive

The Executive of both Institutes meet on a fortnightly basis, from 4th December, 2020. These meetings bring the Executives of both Institutes together in order to achieve the objectives of coherence and common purpose. The Joint Executive is the embryonic executive team for TUSEI and is focussed on operational decisions up to establishment day. The Joint Executive is progressively acting as a single entity, exercising executive functions in respect of both institutes under the joint leadership of the Institute presidents. The development of TUSEI will require decisions to be taken, in advance of establishment, on various strategic and operational issues to ensure that the TU can operate effectively, immediately on its establishment. The Joint Executive as the Institutes' senior management team, plays a key role in this regard.

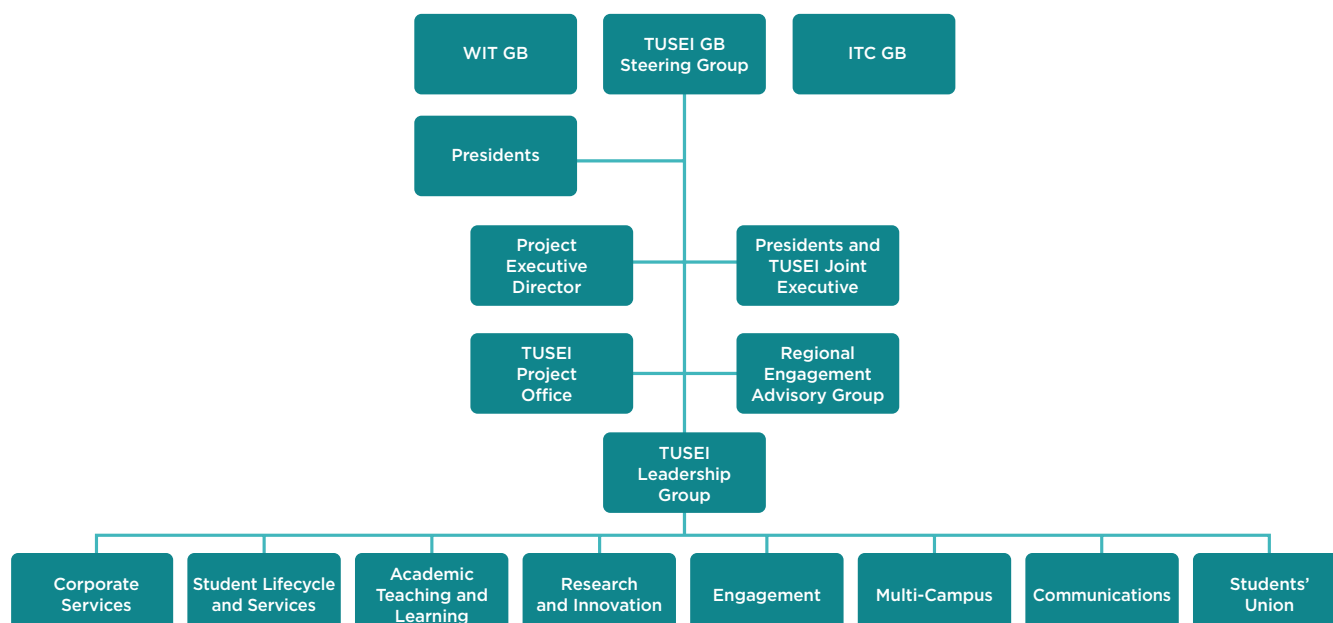
Integrated Planning and Delivery

Alongside this governance structure, a project planning framework is in place to ensure that all elements of the programme are delivered in an integrated and effective manner. A project of this scale and complexity must be delivered in an integrated manner to ensure that the overall milestones and timelines can be achieved and benefits realised. There are a significant number of activities with many interdependencies and constraints, which need to be understood and effectively managed in a proactive and structured way. In order to implement the project's work programme, the work has been structured into eight workstreams, each dealing with a core area, critical to achieving TUSEI's mission. Each workstream is jointly led by a senior Executive from each Institute. These Workstream Leaders collectively form the TUSEI Leadership Group, which meets on a weekly basis. Each workstream is comprised of a number of working groups, dealing with a particular topic. These working groups comprise staff with relevant skills / experience and students, are co-chaired by a senior manager from each Institute. There are 33 working groups across the project's eight workstreams, with a total of 18 workstream leaders, 362 working group members and 64 working group co-chairs, drawn from the staff and students of both institutes.

Each working group has developed a detailed time-lined plan for tasks, deliverables and key milestones against which progress can be monitored using a status reporting system designed to give visibility on progress, work done, work planned and risks. Each workstream has been assigned a dedicated Workstream Coordinator who supports progress reporting, identifies interdependencies, cross-cutting issues and flags risks. All Workstream Coordinators meet together as a group on a weekly basis as part of TUSEI Project Team which comprises the Project Office and IR facilitators from the PMSS group of trade unions and representatives of the TUI trade union.

The Project structure is set out in the Figure 11 below.

Figure 11 TUSEI Project Structure



Managing Communication and Stakeholder Engagement

A core element of the project's work has been to develop appropriate channels for engagement with key internal and external stakeholders. These channels have been used to create and communicate a clear vision for the change required to establish TUSEI, develop a new culture for TUSEI and ensure the required level of stakeholder engagement, commitment and involvement. These communication and engagement channels include:

Staff and Student Engagement Sessions (Virtual Townhalls)

Regular staff and student briefings via zoom, have taken place throughout the project. Initially staff and student briefings were held separately with the Presidents of both Institutes participating in these briefing sessions and delivered presentations on the current status of the project. Separate meetings were also organised with the Executive Officers of the Students' Union. From January 2021, joint weekly briefings for both staff and students were coordinated by the project's Engagement Manager. Those briefings were focused on providing information on the processes and structures and providing updates on progress. As the project has progressed, the focus of these briefings has focused more on seeking discussion on specific topics/thematic areas which will shape the future TU, and seeking feedback and inputs.

Virtual Workshops and Engagement with Staff Representatives

A series of virtual workshops was organised to address relevant topics including "Regional Engagement/The Civic University" and "Internationalisation". These involved staff, students and external stakeholders with a high degree of interaction and debate. Further workshops are planned.

A series of briefings with staff representatives from the PMSS group of unions (FORSA, SIPTU and UNITE) and the TUI was held throughout the project. These meetings outlined the current status of the project and presented an opportunity for the staff representatives to seek any clarifications. From February 2021, the forum for these engagements changed to the weekly Project Team Forum. The membership of this group is the Project Executive Director, Project Directors, Engagement Manager, Data Coordinator, Workstream Coordinators and seconded IR facilitators from PMSS and TUI representatives. This TUSEI Project Office Team meets every week at the same time to provide briefings on the progress of TUSEI project and offer suggestions and views. The coordinators provide an update on the work of each workstream, setting out areas where outcomes are agreed, where work is continuing and the issues arising. The Project Office Team is also an opportunity to review draft material that has been prepared for inclusion in the application documents prior to finalisation by the Project Leadership Group and to receive and discuss feedback from the industrial relations (IR) facilitators on the briefings provided, any issues of note or concern to their members and any other issues relating to TUSEI project.

There are also two IR forums with agreed terms of reference and membership in place for a number of years. These forums consisting of staff representatives from the academic unions and Professional Management and Support Staff unions from both applicant Institutes to come together with management to discuss matters of concern in the creation and operation of the University. These are also a channel by which staff from the two Institutes can come together to discuss matters of mutual interest. These forums are attended by the Presidents and senior executives of both applicant Institutes and staff representatives accompanied by senior full time union officials. The staff members have been supported by full and part time secondments to facilitate their engagement in the forum. The forums have been meeting monthly during the academic year

The IR Facilitators also advise the Project Office on engagement and consultation with their members and identify further areas where they wish to make an input into the work of the Project Office. Further details of the meetings held can be found in Table 8 in the Appendix and in the Microsoft TUSEI TEAM.

Online TUSEI MS Team

A TUSEI Microsoft TEAM was established in August 2020 to act as a repository for project documentation and to support communication within and across working groups and workstreams. Each workstream has a dedicated channel in the TEAM. All members of working groups along with the Leadership Group, Workstream Coordinators and the Project Office team, 437 people in total, are members of TUSEI TEAM. The TEAM is used to share documentation and provides visibility for all members of working groups on all aspects of the project.

8.2 Designation Day Structures and Corporate Governance

TUSEI will need to demonstrate that it has “integrated, coherent and effective governance structures in place concerning academic, administrative and management matters” (according to the legislation). These structures need to be in place in order to commence business on 1 January 2022, the proposed “Designation Day”.

With respect to corporate governance, the approach is to ensure that all necessary legislative, regulation and compliance requirements are in place for Designation Day. A list of all legislative, regulation and compliance requirements has been prepared and a draft work plan is being prepared, identifying the timeline for agreeing TU corporate policies and procedures (Table 12 in the Appendix). The plan is that these corporate policies will be agreed by both ITC and WIT Governing Bodies in advance of designation day with a view to being brought to the TUSEI's first and subsequent GB meetings as appropriate. The gap analysis required to facilitate bringing policies from both Institutes together has started. Draft agendas for first and subsequent meetings of the TUSEI Governing Body and TUSEI Audit & Risk Committee are part of the work plan. Note: The THEA Code of Governance is being updated to reflect TU legislation and will apply.

Key elements of the future organisation are set out below.

Governing Body

Section 55 of the Technological Universities Act 2018 sets out the arrangements for the appointment of the first Governing Body. The first Governing Body will be appointed by the Minister according to the specifications set out in the legislation. The term of office of the new Governing Body will commence on Designation Day.

The legislation also highlights specific activities including the conduct of necessary elections for the remaining members of the Governing Body within 6 months of Designation Day. The Corporate Services Project Plan includes a framework and timeline for arranging these elections and other procedures necessary for filling the remaining positions of Governing Body. A clear work plan will be in place from appointment date for the first twelve months of operation to guide the Governing Body. This will include a focus on the structures necessary in support of the creation of the Strategic Development Plan referenced in the legislation. This work-plan for Governing Body will also include timelines for the approval of all necessary policies and statements, the population of key subcommittees at the earliest possible stages, and other activities. Training and engagement with key stakeholders will also be included in the early part of the work plan.

A number of tasks are being carried in preparation for the substantial range of activities that need to be undertaken by the first Governing Body. These activities include the alignment of key policies and statements e.g. Dignity and Respect, Health & Safety Statement, Equality Statement and any necessary engagement in staff consultation and negotiation in relation to any changes to such policies and statements. This alignment exercise is underway with a view to approving all necessary policies and statements in the period September to December 2021. The alignment of policies in advance of the appointment date will provide assurances to the first Governing Body of the University and should allow for early and efficient approval of the policies for the TU on the appointed date.

Alignment activities specific to the Audit and Risk Committees are currently underway. These activities include familiarisation with audit programme of both Institutes, alignment of Terms of Reference and Audit Charter, identification of external members for recommendation to the Audit & Risk Committee of the University, the close out of any open audit items, and an assessment of integrated risk. It is proposed that in advance of Designation Day the Institutes will approve an integrated transitional audit plan to enable internal audit continue to operate in the early months of the TU hence reducing risk and exposure.

Appointment of the First President

Section 56 of the Technological Universities Act 2018 provides that the Minister may at any time before the day appointed designate a person to be appointed to be the first President of the University. In order to support this crucial activity a framework has been developed as part of the Corporate Services project plan. The framework that has been developed outlines the key timelines and stakeholders relevant to the process (see below). The indicative timeframe is 21 weeks. Additionally, appropriate documentation such as the candidate brochure is being prepared.

Week 1 – 2	<ul style="list-style-type: none">• Approval and briefing of Selection Committee• Agree draft process design and timetable• Agree draft job description and person specification• Agree draft advertisement• Draft candidate brochure• Request for quotes from Recruitment & Selection/Executive Search firms
Week 3 – 4	<ul style="list-style-type: none">• Appointment of preferred Recruitment & Selection/Executive Search firm• Finalise timetable, job description and person specification, advertisement, brochure• Place Advertisement in agreed publications
Week 5 – 12	<ul style="list-style-type: none">• Candidate identification and engagement• Ongoing updates with Selection Committee
Week 13	<ul style="list-style-type: none">• Close advertisement• Review of eligibility criteria versus applications received
Week 14	<ul style="list-style-type: none">• Provision of Longlist to Search Committee
Week 15	<ul style="list-style-type: none">• Long list review by Search Committee supported by Recruitment & Selection/Executive Search firm
Week 17	<ul style="list-style-type: none">• First round interviews
Week 18	<ul style="list-style-type: none">• Short review supported by Recruitment & Selection/Executive Search firm
Week 20	<ul style="list-style-type: none">• Formal final interview and assessment
Week 21	<ul style="list-style-type: none">• Finalise documentation and recommendation

The Executive of TUSEI will be led by the President. While time to establish a full executive structure will be required, the institutes recognise the need to have an interim structure to support the new President, Governing Body and Interim Academic Council in the challenges of the early days of operation of the new unified entity. An Interim Management Group will accordingly be established which will include the current Presidents and senior managers from both existing organisations. It is envisaged that this temporary structure should last no longer than six months.

8.3 Academic Governance

TUSEI proposes in its Mission Statement to “Create and optimise a multi campus learning environment, with a presence in the major regional population centres, delivering a quality student experience aligned to guiding values and principles.” This statement informs much of our approach to teaching and learning. The guiding principles and values of the University in terms of Quality Assurance and a quality student experience are built on strong student engagement, student involvement in governance and in co-creation and student-centred learning, based on the guiding principles espoused in the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015. Stakeholders will also underpin the TU’s engagement on environmental, social and governance performance. TUSEI will have an overarching Academic Governance structure within which the QA/Regulatory Framework, inspired by national guidelines and the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015, will operate. This will build from the established QA/Regulatory Frameworks of the two merging institutes.

In relation to marks and standards, both Institutes have carried out a double gap analysis, initially between both merging organisations and subsequently against external, international/national benchmarks. The double analysis was the agreed approach to both identify principles and practices that are present or absent in both organisations to-date and then to compare the combined output with a recognised best-practice standard to confirm the completeness and quality of the TU Standard. A draft proposed standard will be prepared for the incoming TU Academic Council to consider for adoption.

Guiding Principles and Frameworks

Academic Governance across multiple campuses will be carried out through monitoring, recording, reporting and acting on TUSEI Quality Assurance framework. This will be enacted through common external examiners in each respective programmes/subject area on multiple campuses, making common use of surveys to capture the student voice and identical engagement with students and stakeholders in co-creation and academic-decision-making. The success of the Quality Assurance system will require an integrated data management system that combines data from multi-campus sources to enable improvement and benchmarking. Excellent communications and management of all key academic data will therefore be fundamental components of the QA framework that will guide TUSEI multi-campus in uniformly high-quality performance. Finally, evaluation of performance through external review and student evaluation will be cornerstones to confirming quality of operations.

The QA challenges include those associated with providing extensive opportunities for problem-, project-, action- and research-based teaching and learning practices, facilitating multi-disciplinary learning range across a number of areas, staff recruitment and staff development, external examining, programme design, stakeholder and student co-creation, and the teaching & learning strategy. The TU Quality framework will describe the means for success through the many areas of the framework upon which success depends.

Students have been involved from the beginning in the development of the new QA Framework, the Marks & Standards and the Awards Standards. Student representation has been drawn mainly from their representative bodies and also from the student body through the class representative structure. This will see more informed changes in student engagement across the QA framework, in terms of representation, engagement, co-creation, peer assessment, peer delivery, feedback mechanisms and involvement in decision-making.

8.4 Transition to TU Structures in Support of Quality Assurance

Planning for the transition to the new TU QA regime is well underway. By the time of the Advisory Panel review, the proposed Marks and Standards, as well as the proposed Awards Standards, will be complete and ready for adoption by the incoming TU Academic Council after Designation Day. The Quality Framework will be in draft form, but with all principles agreed by the time of the panel visit and the Quality Framework will have been completed before Designation Day, once again for adoption by the incoming TU Council Post-Designation Day.

Academic Council

On Designation Day, TUSEI will need to have a Transitional Academic Council in place, which will need to be established by the TUSEI Governing Body at their inaugural meeting. This council will amalgamate the Academic Councils of ITC and WIT as they existed prior to this date and will carry out the functions of Academic Council as set out in s.17(3) of the Technological Universities Act 2018. The Transitional Academic Council will be made up of equal numbers from both former institutions, which may entail some initial refinement depending on the actual membership of both councils immediately preceding Designation Day. In this regard, the proposed membership of the Transitional Academic Council will be reviewed in advance of Designation Day to ensure that it meets all of the legal requirements set out in the Act. If any action is required on the basis of this review, it will be taken before this date.

In addition, the Transitional Academic Council will require a draft constitution (incorporating its terms of reference) for members to discuss and approve as well as a series of committees through which council will undertake specific work. It is proposed that there will be a total of thirteen committees, consisting of seven committees that will meet monthly, three that will meet as required and a further three that will meet at least twice each year.⁴⁶ In addition to this, the existing Academic Councils of the two institutions will remain as temporary committees of the Transitional Academic Council in order to address legacy items that have not been fully addressed by the two Institutes by Designation Day. These two committees will cease to exist once all legacy items have been addressed. From Designation Day, all new business will be addressed by the Transitional Academic Council. A document that sets out the proposed membership of each of the committees has been developed and work on developing draft proposed terms of reference for Council and each committee is currently taking place. An initial agenda will be developed for the Transitional Academic Council for Designation Day, which will be prepared in advance to ensure that these items are debated, addressed, refined where necessary, and ultimately approved.

⁴⁶ See table 14, in the Appendix to this document.

Transition Arrangements

Between April and June 2021, work will continue with regard to the design of the Transitional Academic Council, which will include work towards the development of a draft constitution. A framework for what the draft constitution will address is currently being developed. As part of this, the Working Group will be looking to refine its initial design based on feedback from the panel visit. The Working Group will also look to engage with other Work Streams and Working Groups on the basis of any interdependencies that are identified (by the Working Group itself, other Working Groups/Work Streams and the Project Office) that affect or are likely to affect the work on governing structures for academic affairs. Any refinements arising from these engagements will be incorporated into the initial design, recognising that this is an evolving process in the run up to Designation Day.

In the period from September to December 2021, the Working Group co-chairs will commence the integration process of the two existing Academic Councils into a Transitional Academic Council. This will await the establishment of the new Academic Council in WIT, which is due to be formed no later than 31 August 2021. To do this, a series of virtual plenary and small group meetings will be set up between both Academic Councils to discuss the formation of the Transitional Academic Council and the legal and other requirements around this. These meetings will also present an important opportunity for soon-to-be new members of the Transitional Academic Council and committees to get to know each other and to work together in advance of formally coming together. The Working Group co-chairs will remain involved in this throughout, though external facilitation will be brought in to assist in the integration process and in conducting the meetings.

Work that will be performed by the Working Group and the small groups from the Academic Councils will include examining and considering membership models and drafting a new constitution for the Transitional Academic Council. The design and documentation by the Working Group will provide a framework for this. The Working group and the small groups will also examine and refine the membership and structure of the committees and agree an agenda for the inaugural meeting of the Transitional Academic Council. This will need to be completed by December 2021 so that a proposed structure can be laid before the TUSEI Governing Body for their approval on Designation Day. The first meeting of the Transitional Academic Council will follow this (see Table 7).

Table 7 Academic Council Transition Plan

Establishment & Integration Phase	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
Refine design / Interdependency engagement									
Examine panel feedback									
Use panel feedback to refine design									
Integration meetings of ACs									
ACs approve TU draft constitution, committees, agenda; proposed structure communicated to GBs									
Prepare outputs for TUSEI GB meeting on Designation Day									

Post-Designation Day Arrangements

From Designation Day, TUSEI will have in place a fully functioning Transitional Academic Council with its own agreed constitution (including terms of reference) and committee structure. Governing Body approval for the constitution (incorporating the terms of reference) will be sought as soon as is practicable. In early January 2022, the membership of the committees will need to be decided and approved by the Transitional Academic Council. The Working Group will recommend a structure for these as part of its design, along with proposed membership arrangements and terms of reference for committees that the Transitional Academic Council can refine. The Transitional Academic Council and selected committees will need to meet monthly to discharge their functions, with all committees reporting to the Transitional Academic Council after they meet for approval of any proposals emanating from those committees.

As soon as possible, the previous Academic Councils of ITC and WIT – which will have become temporary committees of the Transitional Academic Council – will cease to operate. This will happen once members of those committees determine that all legacy items have been cleared. No timeline on this is being set yet, but this will be reviewed monthly by the Transitional Academic Council to ensure that legacy items are being progressed. The Transitional Academic Council will make the final decision as to when these committees can cease to operate.

It is envisaged that the Transitional Academic Council will remain in situ for at least the first year, to allow for a reasonable bedding-in period. This should be regularly reviewed both by the Council itself and by Governing Body, to which the Transitional Academic Council will report to on a monthly basis; the format of this report will be agreed between the TUSEI Governing Body and Transitional Academic Council in early 2022. Definitive indicators as to when the transitional phase of Council is to end are not being set at this juncture, but rather should be debated by Council during the first six months of TUSEI. However, one potential indicator might be when the TUSEI executive structure has been agreed and implemented. When it is agreed to move beyond the transitional phase, Council elections will need to be arranged and held. Election arrangements will already have been agreed as part of the constitution.

8.5 Systems Integration in the Future Organisation

TUSEI will be an integrated entity from a governance and systems point of view.

The migration of the core computing systems, many of which are Microsoft products, has been bundled into one project. Expert Consultants have been engaged to assist with the design and delivery of these core systems. Their initial engagement is to undertake a process of Technical and Change Management discovery. The output from this will be a detailed breakdowns on the Technical, Change Management and Communication activities that will be required for the successful building and integration of the Microsoft suite of products for the new organisation, as well as the migration of legacy data into the new platform. The second phase of this project which will involve the technical build and data migration based on the detail plan developed from the discovery phase, should begin in early June.

HEAnet will be assisting with various networking and identity management tasks primarily around the reflection of the new TU identity in their federated Edugate service. This will be necessary for the continuity of services that authenticate against this federated identity service (Eduroam Wi-Fi for example). HEAnet will also be required to assist with any re-configuration of their edge routing equipment to ensure network traffic from the new TU Domain is routed correctly from the WIT/ITC networks.

Engagement with EduCampus is essential to establish timelines and sequencing for the integration of all of the MIS systems that they manage. A TUSEI/EduCampus forum has been established and terms of engagement for this forum agreed. A number of meetings have already taken place of this forum to discuss a high level approach to this suite of projects. Significant process alignment discussion will need to proceed any systems alignment project in each of the functional areas. Detailed plans for integration of business applications across both institutes are being developed including Student Records, Finance, HR, and Library. Further details with regard to the IT systems is included in Table 11 in the Appendix.

8.6 Financial Plan

TUSEI Financial Resources and Sustainability

The financial plan for TUSEI is based upon consideration of the financial activity of both institutions merging to form the new entity that will operate as a university. While the assumptions underpinning the plan are outlined below, it is critical to highlight that TUSEI, as a university, and therefore as an organisation distinct from the applicant institutions with the enhanced levels of performance required and the additional expectations on the organisation from stakeholders (including government), will require a new funding model that is more aligned to the existing HEA university funding model but that takes account of the additional breadth of activities unique to TUs.

Table 9 *The Consolidated TUSEI Financial Plan* summarises the expected financial position for each of the academic years from 2021-2022 to 2031-2032. Expenditure includes the projected operational costs for TUSEI but does not include initial incorporation and integration costs. It is critical to note that additional exchequer funding will be required to incorporate and integrate the organisations

and to realise the ambitions of the project. Projected increases in revenue (tuition fee and state recurrent grant) relate to anticipated additional student numbers derived in line with forecasts taken from DoES/CSO projections, which indicate an increase of 18% in the national student population. The state recurrent grant has been calculated and moderated appropriately within the existing grant model. However, it is clear that TUSEI will require a new funding model more appropriate to the requirements of a technological university.

Student Numbers

CSO forecasts indicate that the population of 18 year olds in the South-East could increase by 16-20% by 2027. The establishment of TUSEI, building on the reputation and strategic position of the applicant institutions, should result in improved course offerings along with additional outreach and engagement activities and hence deliver the increase in market share projected.

Sensible projections regarding a modest but growing recovery in International Student movement and associated income is projected. In summary by the academic year 2031-2032 the additional projected number of graduates from TUSEI should exceed 3,500.

Summary Growth Assumptions

The high-level assumptions made that support growth include:

1. The market share held by TUSEI of the national full-time national undergraduate student population is expected to grow from the current combined level of the applicant institutions of 5.8% to 6.8%;
2. The part-time undergraduate cohort is expected to grow by 3% on average p.a.;
3. Post-graduate student numbers are expected to grow by 3% on average p.a.;
4. The merging of the two entities will require a detailed review of optimum staff to student ratios across the TUSEI. Some provision has been made for this in later years. Further relevant factors that will need due financial consideration include the alignment of work practices and the configuration of teaching space;
5. Staff increases also include projections relating to increased research activity;
6. The current academic staff to support staff ratio of the applicant institutions is below sector norms, therefore in order to deliver and provide appropriate supports to the student and academic community increases have been provided for even though the final ratio still remains below the current norm at 1:0.68.

In finalising the financial model consideration was given to the effect of the global pandemic (COVID-19) on the operations, financial position and underlying assumptions appropriate to the plan. As a result of this the most recent financial year was not necessarily taken as indicative of future trends. The assumptions used for the plan are as follows:

Baseline:

The baseline position in the forecast model is derived from the following:

1. Student Numbers for the combined entity are per March 2019 Higher Education Authority Student Records System (HEA SRS) return;
2. Staff Numbers are based on December 2019 Employee Control Framework submission to the Higher Education Authority with an adjustment made for posts filled during the year and vacancies projected at December 2020;
3. The base year for Income & Expenditure projections references 2020 Programmes and Budgets due to the unusual effect the global pandemic had on later outturns.
4. Student Numbers: As noted above student numbers are targeted to reach 6.8% of market share. This will be achieved by a gradual increase over the ten-year period; slower growth rates are predicted in earlier years and modest growth acceleration in the later years.
5. Staffing Numbers: The staffing levels are derived in the first instance from those levels reported at December 2019 with adjustments as referenced above. Any expected increases in staff numbers have been moderated in the initial years.
6. Student Fees: Student Fee rates are assumed to remain flat; no increases in the rate of tuition or student contribution have been incorporated. Total amounts included for tuition fees and student contribution income therefore only move in line with Student Numbers.
7. Recurrent Grant: The current Recurrent Grant Allocation Model (RGAM) model has been assumed in the calculations with a 2% increase in overall funds and a moderator effective at 2%.
8. Research Income: A growth rate of 2% per year has been applied for competitive research funding with reference also to increases assumed in academic staff to account for additional activity. A further growth rate averaging at 3% per year has been applied for baseline research funding as expected through the Recurrent Funding Allocation Model (RFAM) model.
9. Pay Costs: Pay costs reflect movements in line with staff numbers and a nominal increase has also been applied to allow for increment costs and national pay increases.
10. Non-Pay Costs: With the exception of Travel, Subsistence and Maintenance costs, non-pay costs are assumed to move in line with student numbers and the associated increased academic activity; an additional 1% increase for inflationary costs each year has been provided for.
11. Capital Costs: Capital expenditure has not been integrated into the financial plan for the TUSEI but further details are set out below on the capital development vision.

Table 8 The Consolidated TUSEI Financial Plan

Consolidated TU Financial Plan												
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	Cumulative
	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m	€m
Income												
State Grants	64.73	67.62	70.62	73.70	77.01	80.76	84.58	88.40	92.19	95.67	98.28	893.55
Tuition Fees and Student Contribution	50.87	55.54	58.07	59.93	61.97	63.69	65.55	67.71	69.45	70.96	72.50	696.24
Research Grants & Contracts	23.82	24.70	25.50	26.51	27.43	28.49	29.59	30.87	32.02	33.36	34.82	317.11
Sundry Income	10.02	10.37	10.69	10.94	11.22	11.47	11.75	12.05	12.31	12.55	12.80	126.17
Amortisation	7.35	7.83	8.26	8.62	9.00	9.35	9.72	10.14	10.51	10.85	11.20	102.82
Total Income	156.79	166.05	173.14	179.70	186.63	193.76	201.19	209.17	216.47	223.39	229.60	2,135.89
Expenditure												
Pay	118.55	123.62	126.27	129.55	132.72	136.62	140.65	145.14	149.69	154.16	159.03	1,516.00
Non-Pay and Minor Capital	30.26	34.06	34.46	34.57	35.53	36.37	37.82	39.45	40.89	42.22	43.60	409.23
Depreciation	7.68	8.18	8.63	9.00	9.40	9.77	10.16	10.60	10.98	11.34	11.70	107.44
Research Partner Allocations	8.57	8.86	9.12	9.47	9.78	10.15	10.53	10.98	11.38	11.85	12.37	113.06
Total Spend	165.06	174.72	178.49	182.59	187.43	192.91	199.16	206.16	212.94	219.57	226.71	2,145.73
Result	(8.27)	(8.66)	(5.34)	(2.89)	(0.80)	0.85	2.03	3.01	3.53	3.82	2.89	(9.84)

(Figures are in millions of Euro.)

Capital Development Vision and Funding Requirements

TUSEI envisages the completion of a number of significant capital projects with a requirement of funding in the region of €100 million with the first 5 years of operation and a further €100m over the following decade.

This takes account of:

- Predicted areas of short-term student growth;
- Need for investment in backlog maintenance and renewal;
- Trajectory targets associated with technological university;
- Capacity to deliver.

TUSEI predicts a significant growth in student numbers associated with the creation of a strong, high performing university in the South-East. This growth will see the retention within the region of students currently leaving to take university-level and type courses elsewhere. This growth will also be a natural consequence of predicted population growth and, over time, will be an expression of the planned growth in population in the South-East region area. The creation of a strong university in the region will enact the regional rebalancing required by Ireland 2040 and will have a considerable impact on the regional economy.

The TU proposition also involves significantly enhancing the research performance of the new organisation. Moreover, there are requirements in legislation that insist certain targets are met by the University in 5-10 years around student numbers and the volume, scale and quality of research activity. The table above takes account of the immediate need for investment in research infrastructure in support both of the growth targets and the wider need for enhanced performance in research and graduate studies.

Any capital investment plan must take account of the lack of serious investment over at least a decade and the rapid deterioration in infrastructure that is in some cases fifty years old.

Given the lead-in, planning and construction timelines involved, and internal capacity, TUSEI is confident that a major capital programme could be delivered effectively in a four year time period. The table above does not take account of new projects that commence but are not delivered before 2025.

The future development of the various campus locations will represent a flagship development within higher education in Ireland and incorporate leading edge design, educational innovation and technology reflected by:

- Innovation in the manner TUSEI delivers and manages learning and research
- Learning and research activities that are accessible to students, staff and visitors alike
- The adoption of principles of long term environmental sustainability as a hallmark of the Technological University
- Quality of design and a strong integration between the campus and the surrounding urban environments
- Each campus will be a model of best practice in offering universal access
- A range of provision on each campus which offers a rounded mix of high quality educational, social and recreational facilities for the student, staff and the wider community
- A density of population across the multi campus environment, facilitating the maximum possibility for collaboration between faculties and disciplines
- A focus on building a strong alliance with industry on campus through an enterprise technology centre/hub complemented by alliances with industry off-campus in support of economic development and collaboration with professional bodies
- A focus on flexible building design to encourage and promote synergy, integration and intellectual interaction
- A major focus on the optimisation of “balance-space” corridors stairways, halls, as learning and social spaces for campus user groups
- A strong focus on technology as a driver in learning, research and administration
- Research facilities which reflect the central role of TUSEI in the generation, application and exploitation of new knowledge and
- Flexibility of layout that will accommodate future potential expansion
- Creation of an environment which promotes equality, diversity and inclusivity for all staff, students and visitors

The financial plan is based on current operating models and additional investment will be required in the early years to fully establish an integrated multi campus Technological University. This investment, both recurrent and capital, is critical to deliver the enhanced level of performance, improved teaching environment, greater faculty and staff expertise, enhanced research capability, additional breadth of programmes, and broadening of access routes—in other words, to deliver an internationally recognised Technological University in the South-East of Ireland as required by policy.

The creation of the TUSEI will provide current and future cohorts of young people residing in the region with better opportunities to attend higher-level education. This in turn will lead to increased numbers of students studying at and graduating from TUSEI and will therefore add to our region's labour market.

8.7 Establishing the Organisation of the Future

At the core of the establishment of the TUSEI is the need to integrate successfully two individual organisations with unique cultures, structures, academic histories and ways of working. However, the future structures will go beyond integration of the two organisations, to create a new organisation that can deliver on the vision and mission of TUSEI. The challenges of aligning academic structures, academic regulations, teaching and learning practices and quality assurance practices across two diverse operations needs to be planned and executed in a considered manner. To this end, the Institutes have developed a design-led approach to the new organisational structures and governance. The organisational form of TUSEI will emerge under the leadership of the incoming President through a sequence of consultations and interventions that will lead the legacy organisations to the unified new entity. The principles set out below will, in other words, direct the activities of the organisation in the early months of its existence and assist with the creation of the robust structures and approaches needed by the nascent organisation.

The approach proposed for the development of this future organisation is designed to ensure that critical success factors are addressed by:

- Developing and securing agreement with a coherent and strong set of organisation design principles that will be essential in addressing organisational issues arising in the process;
- Having a robust, proven approach and method for systematically and thoroughly identifying and evaluating organisational design options against agreed evaluation criteria;
- Ensuring clarity, accountability and authority are appropriately balanced in the organisation design and that due consideration is given to the effective operation of the various campus locations;
- Consistently considering the student and staff experience throughout the organisation design process;
- Ensuring that the design process has appropriate ownership, leadership and stakeholder engagement.

Principle-Based Design

A clearly defined set of design principles will guide the organisation design process and ensure that the future organisation is capable of supporting the achievement of the overall objectives of the TUSEI project. These principles will be used throughout the stages of the design process to provide consistency in the identification, evaluation and selection of potential organisation options. The principles embody the strategic view of the senior leadership to shape the many discussions and decisions that will occur as the future organisation is developed. The principles are:

1. A commitment to developing a merit-based organisation, which recognises, retains and rewards talent offering a framework for career and professional development across both the academy and professional services;
2. A unitary multi-campus institution that strives for excellence in all its activities and optimises its structures to ensure excellence;
3. An integrated organisation that strives to provide a similar and equitable student experience regardless of subject or campus; and through its structure can support efficient and effective programme delivery whilst advancing the impact of its research and teaching;
4. A united organisational structure and culture which supports the mission, vision and values of TUSEI by embedding them in job descriptions and roles to engender “living breathing” values;
5. An integrated senior executive leadership team structure that clearly demonstrates the priorities of the organisation and is optimised to deliver on the strategic goals in each of these priority areas;
6. An organisation which advocates, promotes and reinforces collaboration across and within staff, students, subjects, research, campuses and stakeholders; a structure which supports inter-disciplinarity in every facet of its efforts;
7. A visibly accessible organisation with clear and recognisable “points” for stakeholder entry and engagement, and an integrated approach to stakeholder engagement;
8. A structure and culture that encourages and empowers leadership capability through consistent, effective and devolved decision-making;
9. A structure and culture that recognises academic freedom, and through high levels of professionalism and accountability gives confidence to the academy and facilitates faculty empowerment;
10. Efficient and effective management structures to support agile decision making which is clear, accountable and can withstand independent scrutiny and audit;
11. A Governing Body that is clearly separate from the executive and can drive the structure, culture and success of TUSEI.

Understanding the Current Organisation

Many of the existing staffing structures are not adequate to meet the demands of a TU and the expectations of our stakeholders. In the case of PMSS staff, for instance, their responsibilities, job descriptions and roles are not flexible, broad or developed sufficiently enough to address the requirements in administration, research, undergraduate support service and delivery inherent in the vision and mission of TUSEI. In this case, the University will need to engage with staff to jointly develop the integrated structures and support plans that will be required to support the activities and development of TUSEI going forward.

More generally, understanding the detail of the current organisation structures is essential in identifying and selecting the most appropriate options for each element of the future structure. In particular, an assessment of current structures will enable the TUSEI Organisational Design

Programme to:

- Identify the elements of the current structure which should be included or further developed in the future design;
- Identify areas of duplication which need to be considered in the context of the future operating model;
- Identify future areas of activity/service that are not currently supported by the existing structure;
- Understand the impact of moving from the current structures, when evaluating potential future organisational design options.

This phase of the design process will involve analysis of existing organisational arrangements as well as engagement with academic staff, professional services staff and end users of services, to understand how the organisation supports the delivery of current internal and external services and activities.

Future Ways of Working

The future organisation design will be based on a way of working, or “operating model”, which describes how the founding institutions will come together to deliver the full capability of the TUSEI. This will address how existing activities are developed and expanded, as well as how new TUSEI activities and services will be incorporated. This is a critical step in the design process as it ensures that the organisation does not evolve as an iteration of current structures, but is designed to be fit for purpose in supporting the establishment of the new TUSEI. The operating model will be developed through structured consultation with staff, students, and the wide range of stakeholders both internal and external associated with the Institutes.

Designing the Structures

The design of the organisational structure will take place in two phases:

- High level design – ensures an agreed integrated organisation model that specifies the key elements of management and governance;
- Detailed design – addresses the specific aspects of individual areas of the organisation and provides the necessary detail at all levels in the organisation structure.

In each of these two phases, a number of key questions will be addressed in developing and evaluating different options as follows:

- Organisational strategy – Does the organisation design give sufficient management coverage to the strategic objectives and operating priorities?
- People – What capabilities and capacity are required to support the organisation design?
- Hierarchy – Is it clear how each level of the organisation adds value to the overall structure?
- Decision rights – Are the organisation’s critical decisions being made in the correct area and at the right level of the hierarchy?

- Accountability – Is accountability clear throughout the structure and is it correctly aligned with responsibilities?
- Constraints – Does the organisational design take into account new or existing constraints facing the organisation?
- Organisational links – Does the organisation design address the required linkages within TUSEI or between it and other organisations?
- Flexibility – Is the organisation design flexible enough to adapt to future changes?

Through an extensive consultation process with relevant stakeholders, options for the high level structure will be developed. These will take account of the different ways in which roles can be organised to deliver the required services and activities of the TUSEI. These options will address the reporting arrangements within elements of the structure as well as the interactions between different areas of the organisation. Inputs to the development of these options will include evaluation of current structures and requirements to deliver the future TUSEI. This high level organisation structure will enable the agreed operating model and will take account of the assessment of current structures in place. It will cover the academic and professional, managerial, administrative and support services structures, including any new areas of activity that will be required. It will also incorporate organisational elements specified in the Technological University legislation such as the Governing Body, Academic Council and President

The detailed design process is iterative, as it needs to address the requirements within individual functions as well the need to interactions between functions. This means that there are dependencies between the design activities across the organisation, so selection of a particular design option may be linked to decisions made in another area of the structure. It is conducted through workshops, individual meetings, discussion documents and review sessions.

Concluding Comments

In this application we believe that we have demonstrated that we meet the statutory criteria for designation as a technological university. Equally important, we have demonstrated that we have the ambition, commitment and capacity to be a TU of the highest international standing. We acknowledge that the full realisation of our ambition will take time. But our starting position is strong based on the combined strengths of Institute of Technology Carlow and the Waterford Institute of Technology and on the support of our governing bodies, staff, students and our external stakeholders.

Abbreviations

CAO	Central Applications Office
CF	Commercialisation Fund
CPD	Continuing Professional Development
CSO	Central Statistics Office
DAC	Designated Activity Company
EI	Enterprise Ireland
EDI	Equality, Diversity and Inclusivity
ERA	European Research Area
ERC	European Research Council
ETB	Education and Training Board
EU FET	European Union Future and Emerging Technologies
EUFP7	EU Research Funding, 7th Framework Programme (2007-2013)
FDI	Foreign Direct Investment
FET	Further Education and Training
FORSA	Trade Union formed by the amalgamation of the Civil, Public and Services Union (CPSU), IMPACT and the Public Service Executive Union (PSEU).
H2020	Horizon2020
HE	Higher Education
HEA	Higher Education Authority
HEANET	Ireland's National Education and Research Network
HEI	Higher Education Institution
HR	Human Resources
IBEC	Irish Business and Employers Confederation

ICT	Information and Communication Technology
IDA	Industrial Development Authority
IPP	Innovation Partnership Programme
IoT	Institute of Technology
IR	Industrial Relations
IRC	Irish Research Council
ISCED	International Standard for Classification of Education
ISED	The Ireland South-East Development Office
ITC	Institute of Technology Carlow
KIC	Knowledge and Innovation Communities
KIE	Knowledge, Innovation and Enterprise
KTI	Knowledge Transfer Ireland
LEO	Local Enterprise Office
MoU	Memorandum of Understanding
NDP	National Development Plan
NFQ	National Framework of Qualifications
NQAI	National Qualifications Authority of Ireland
PMSS	Professional, Management and Support Staff
PLC	Post Leaving Certificate
QA	Quality Assurance
QQI	Quality and Qualifications Ireland
RDM	Research Data Management
RDI	Research Development and Innovation
RFAM	Recurrent Funding Allocation Model
RGAM	Recurrent Grant Allocation Model
SDG	Sustainable Development Goals

SEAPJ	South-East Action Plan for Jobs
SERSF	South-Eastern Regional Skills Forum
SIPTU	The Services, Industrial, Professional and Technical Union
SME	Small and Medium Enterprise
SOLAS	Further Education and Training Authority
SPA	Strategic Planning Area
SRS	Student Records System
THE	Times Higher Education
THEA	Technological Higher Education Association
TIDA	Technology Innovation Development Award
TU	Technological University
TUI	Teachers' Union of Ireland
TUSEI	Technological University of South-East Ireland
UNITE	UNITE Trade Union
UDL	Universal Design for Learning
VLE	Virtual Learning Environment
WIT	Waterford Institute of Technology



