

ESTABLISHING THE MUNSTER TECHNOLOGICAL UNIVERSITY

Application for Designation as a Technological University



FEBRUARY 2019

TABLE OF CONTENTS

List of Tables	04	– A Commitment to Excellence and Quality	26
List of Figures	04	– A Commitment to Internationalisation	27
Glossary	05	– MTU – Fulfilling the Functions of a Technological University	27
Foreword Implementing the Vision	06		
Submission Overview	09		
<hr/>			
SECTION I – ESTABLISHING MTU	10	CHAPTER 4 CRITERIA	30
<hr/>			
CHAPTER 1 CONTEXT	12	– Chapter Overview	30
– Chapter Overview	12	– Student Profile Criteria	30
– Introduction	12	– MTU Trajectory Research Student Plan	32
– Institutional Context	12	– Staff Profile Criteria	32
– Introducing Cork Institute of Technology	13	– MTU Trajectory Research Plan	33
– Introducing Institute of Technology Tralee	13	– Research Activity Criteria	34
– Overview of the South-West Region	14	– Engagement and Governance Criteria	35
– MTU Meeting the Challenges of Higher Education in an Irish Context	16		
<hr/>		SECTION II – THE FUNCTIONS OF MTU	36
CHAPTER 2 MANAGEMENT OF THE MTU PROJECT	17	<hr/>	
– Chapter Overview	17	CHAPTER 5 TEACHING AND LEARNING	38
– Introduction	17	– Chapter Overview	38
– The Munster Technological University Project Background	17	– Provision of Teaching and Learning	38
– Timeline of Project Activities	18	– Programmes	38
– Acting as One	19	– NFQ Levels	39
– The MTU Project	20	– Flexible Curriculum	40
– Programme Oversight Board	20	– Teaching and Learning Processes	41
– The Foundations of MTU	22	– Staff	42
		– Students	42
CHAPTER 3 INTRODUCING MTU: A REGIONALLY BASED MULTI-CAMPUS TECHNOLOGICAL UNIVERSITY	23	CHAPTER 6 SUPPORT FOR STUDENT DEVELOPMENT AND STUDENT OPPORTUNITIES	44
– Chapter Overview	23	– Chapter Overview	44
– Introduction	23	– Practical Support Functions	44
– The Functions of a Technological University	23	– Student-Centred Opportunities	45
– The Vision for MTU	25	– Social and Cultural Opportunities	46
– The Mission of MTU	25		
– The Values of MTU	25	CHAPTER 7 ENTREPRENEURSHIP, ENTERPRISE DEVELOPMENT AND INNOVATION	47
– MTU Defining Characteristics	25	– Chapter Overview	47
– A Person-Centred Technological University	25	– Introduction	47
– An Open and Outward-Facing Technological University	26	– MTU Engagement Strategy	47
		– MTU Regional and National Engagement	49
		– MTU International Engagement	49



LIST OF TABLES

Table 1	Relevant key Indicators by local authority area for Cork City, Cork County and Kerry compared to the national average	15
Table 2	Timeline of key milestones to date	18
Table 3	Examples of ‘acting as one’	19
Table 4	The key characteristics of our technological university	24
Table 5	Our technological university	29
Table 6	Research student numbers	31
Table 7	Staff profiles	32
Table 8	Research activity criteria	34
Table 9	Engagement and governance profiles	35
Table 10	MTU student profile by NFQ level	39
Table 11	CIT/ITT combined research structure	52
Table 12	Projected financial performance of MTU over two academic cycles	63
Table 13	State grant and student income in AY18/19	65
Table 14	Pay and non-pay expenditure in AY18/19	66
Table 15	MTU development projects	67
Table 16	Estimated cost of MTU development projects	68
Table 17	Projects in development	68
Table 18	Total cost of proposed developments	69
Table 19	Impact of ITT deficit continues at €1.5m per annum	70
Table 20	Impact if MTU student number uplift is 2.5% rather than 5.0%	70
Table 21	Summary and comparison of economic contributions and impacts of MTU on the joint economies of Cork and Kerry	73

LIST OF FIGURES

Figure 1	Location of CIT and ITT in the South-West region of Ireland	14
Figure 2	Employment by economic sector (South-West), Q2, 2017	15
Figure 3	MTU Programme Oversight Board	20
Figure 4	MTU project approach	21
Figure 5	Student number analysis	65
Figure 6	Merger case – income bridge from AY18/19 to AY26/27 (two academic cycles)	65
Figure 7	Organisational integration costs AY19/20 to AY26/27	66

FOREWORD | IMPLEMENTING THE VISION

It is with great pride and delight that we introduce this document to readers. Since 2012 the Governing Bodies of Cork Institute of Technology (CIT) and Institute of Technology, Tralee (ITT) have been working towards the creation of the Munster Technological University (MTU). Over these years we have endeavoured to act as one and work together to bring both CIT and ITT to this point in time. As the chairs of the respective Governing Bodies we are proud of both institutes' histories to date and of our people; staff, students and stakeholders. Together, we now look forward to the future and the creation of MTU.

CIT and ITT welcome this opportunity to bring about a step change in higher education for the South-West region. Ireland stands on the cusp of great change. In the next 20 years the country will grow by an extra one million people. The South-West is ready for a multi-campus technological university based in the region.

Project Ireland 2040¹ has many objectives to ensure the country's prosperity and happiness in an ever-changing world, including; enhanced regional accessibility, strengthened rural economies and communities, a strong economy, supported by enterprise, innovation and skills. Building on the foundations of CIT and ITT and their demonstrable evolution and success over the past four decades, MTU is set to take on these challenges of the future for the region.

Creating a strong economy will depend on creating places that can foster enterprise and innovation and attract investment and talent. MTU working closely with its many stakeholders will be a key driver in ensuring the South-West region leverages the potential of its location. MTU will be a centre of excellence in education, research and engagement for career-focused learners seeking enterprise and community-ready qualifications and experiences. The entrepreneurial focus of MTU will open a world of opportunities for its stakeholders.

MTU will have an extensive regional footprint with six campuses across the South-West region providing programmes and delivering leading research with multi-disciplinary, industry-focused research with national and international partners. Partnering with industry and community, MTU will seek out dynamic cross-sector relationships with start-ups, innovators and industry leading companies. MTU will continue to invest in the future with state-of-the-art research, education, enterprise, cultural and sports facilities.

Over time the creation of MTU will bring about considerable benefits through its enhanced critical mass. MTU will provide significant opportunities for multi-disciplinary collaboration across the multi-campus, regionally-based, technological university. These opportunities will deliver additionality for the South-West region and nationally across the areas of teaching and learning, research, innovation and engagement supporting the economic, social and cultural fabric of the region. Technological university designation will enable MTU to compete on equal terms with peer universities on a national and global stage, attracting international and home students, funding, partnerships and highly skilled staff.

MTU will foster a culture for success by preserving the warm, welcoming, entrepreneurial, innovative, people-oriented culture and community CIT and ITT are known for. We will maintain our reputation as being good to do business with and continue to be the preferred partner of industry leaders. Our ambition is to have a lasting positive impact on the South-West region and beyond; and our values will guide our relationships with students, with staff, our partners and the wider community of stakeholders.



Bob Savage
Governing Body chair,
CIT



Lionel Alexander
Governing Body chair,
ITT

¹ <http://npf.ie/project-ireland-2040-launched/>

“ The creation of technological universities in Ireland is an exciting time in the history of higher education in Ireland.

The establishment of MTU will help to position Munster and the South-West of Ireland as an attractive region. In my role as CEO of IDA Ireland I look forward to working with MTU in promoting the region as a key location for new business and to support the expansion of existing businesses in Ireland, helping to significantly boost and enable regional growth and development. MTU will help to secure the future flow of relevant talent ready to work for high-performing FDI companies across a range of pioneering sectors. ”

Mr Martin Shanahan, CEO, IDA Ireland





SECTION I **ESTABLISHING** **MTU**



"A great building must begin with the imagination, but must go through the inevitable process of design."

CHAPTER 1 | CONTEXT

Chapter Overview

This chapter places the application by Cork Institute of Technology (CIT) and the Institute of Technology Tralee (ITT) for designation as a technological university in context. An overview of the historical and regional context of Munster Technological University (MTU) is provided with reference to the changing educational landscape of higher education in Ireland.

“Munster Technological University will provide the impetus for continued economic development within the region. This ambitious project will provide the necessary human capital this region needs to prosper and grow and will be a central economic driver both regionally and nationally.”

Mr Edmond Scanlon, Chief Executive, Kerry Group

Introduction

CIT and ITT play a significant role as higher education providers in the South-West region of Ireland. Within the changing landscape of higher education in Ireland, the two institutes have now reached a pivotal moment in their journey towards achieving technological university designation and the creation of MTU. The creation of MTU will be the largest sectoral change in the region in recent times and will consolidate the position of the South-West region as a leading centre for practice-led and research-informed education. Together as MTU, the combined histories and expertise will be leveraged to deliver a higher education experience capable of transforming the lives of the people of the South-West and Ireland. We will provide an international experience to our students and staff through our relationships with over 180 international education and research partners.

Institutional Context

In a development of major significance for education in Ireland, regional technical colleges (RTCs) were established in the 1970s. The educational objective of the new RTCs at the time of establishment was to address significant skills gaps in the technical areas, with an initial focus on engineering and sciences. In 1992, legislative changes resulted in the institutions becoming self-governing and in 1997/98 both institutions achieved designation as institutes of technology (IoTs). Both CIT and ITT have played a major role in the growth of higher education in the South-West region developing innovative pathways for learners and contributing to the continued development of their local regions.

Both institutions have a proud history of success and achievement. Since their foundation, the depth and breadth of their programme offering, and operations has grown. From initially providing nationally recognised technician diplomas, both institutes deliver education from higher certificate awards at level 6 on the National Framework of Qualifications (NFQ) to PhD awards at level 10. In addition, apprenticeships and traineeships are offered as real-life learning in both institutes, which combines learning in the place of work with learning in a higher education institute. Together the institutes provide educational programmes across the disciplines of education, visual and performing arts, humanities, business and administration, natural sciences, mathematics and statistics, information and communication technologies, engineering and manufacturing, architecture and construction, and health and welfare.

Over their histories, the institutes have broadened their activities by developing considerable portfolios of research, managed across a number of research centres. These research centres operate across areas with delegated authority at level 10 in the fields of physical sciences, life sciences and electronic engineering and computing. CIT and ITT have shown their capacity for collaboration through their participation, as partners and leaders, in a wide range of regional and national higher education collaborations, covering academic, research and administrative activities.

Both CIT and ITT operate with engagement as a core activity and this will be capitalised upon in MTU. Engagement permeates all aspects of institute life through the level of direct contact with industry, enterprise, community, student work placements, consultancy projects and research collaborations as well as internal engagement between departments, students and staff. Both institutes are deeply embedded in their respective communities, providing multiple access routes to higher education, enabling and supporting participation across all sectors of society. The presence and growth of the institutes within the South-West region has proven to be a catalyst for positive change. The investment in human capital directly attributable to the institutes has led to economic and societal progress across the region (SED 1).

The internationalisation objectives that both institutes have pursued over the years have added greatly to the diversity of the student population across all campuses. This is not only evident on campus, but in the communities where the institutes reside. Students from over 70 countries attend programmes of study at CIT and ITT. The participation of students from a diverse range

of countries, their cultural contribution and the diversity that they add to the student experience has benefited students, staff and the community at large. Since their establishment the institutes, students, staff, researchers and collaborators have succeeded in numerous arenas, both nationally and internationally.

Over their histories the institutes have expanded their physical footprints; invested in significant capital infrastructure projects, teaching and learning facilities, research buildings, innovation and incubation centres, library and information facilities, in addition to sports and cultural facility development. Long-term capital development masterplans are in place and their delivery will ensure the future growth and development of on-site facilities (SED 2). This will safeguard the quality of the experience of MTU students and staff into the future.

Introducing Cork Institute of Technology

CIT was developed from earlier institutions including the Royal Cork Institution, which existed from 1807 until 1861; the Crawford Municipal Technical Institute, which opened in January 1912; and the Municipal School of Music, which was founded in 1878. Cork RTC was established in 1974 and now CIT hosts students across four campuses: the Bishopstown Campus, CIT Crawford College of Art and Design (CCAD) in Sharman Crawford Street, CIT Cork School of Music (CSM), Union Quay, and the National Maritime College of Ireland (NMCi), located in Ringaskiddy in Cork Harbour.

CIT has a substantial footprint in Cork City and the footprint of CCAD was recently expanded with the opening of 46 Grand Parade, Cork

City. Blackrock Castle Observatory (BCO) is located in the suburb of Blackrock and acts as a centre of excellence in science, technology, engineering and maths (STEM) for the institute. The Rubicon Centre, CIT's innovation centre for entrepreneurs, forms part of the CIT entrepreneurship ecosystem. The Cork Centre for Architectural Education is a joint initiative with University College Cork and is a newly developed purpose-built facility located in Cork City, which accommodates joint provision in architecture.

CSM has over 3,000 part-time enrolments for music and drama school students as part of the conservatory provision of the school, with all students benefiting from the dynamic learning and teaching environment offered at CSM.

Introducing Institute of Technology Tralee

ITT was established in 1977 as Tralee Regional Technical College (Tralee RTC) and in 1997 was designated as an institute of technology and became Institute of Technology Tralee (ITT). When first established in 1977 Tralee RTC was based in Clash, a 10-acre site located less than two kilometres from Tralee town centre. In 1997 ITT, in partnership with the then Shannon Development, purchased a 113-acre site at Dromtacker, Tralee. Following a €45m investment by ITT a number of the institute activities in the South Campus were relocated to Dromtacker. Today ITT operates on two campus locations in Tralee: the original South Campus and the North Campus.

ITT has grown significantly over the past four decades and has three principal schools spread across both campuses – School



of Business, Computing and Humanities; School of Science, Technology, Engineering and Mathematics; and School of Health and Social Sciences. With the support of Enterprise Ireland, ITT developed the Tom Crean Business Centre, an on-campus incubation centre. The centre plays a key role in fostering and developing the entrepreneurial mindset as part of the innovative ecosystem of ITT.

Overview of the South-West Region

In Chapter 10 the socio-economic and financial impact case for merger of the institutes and designation as Munster Technological University can be found. This has been developed against the following national and regional context.

Today, Ireland has a population of 4,857,000² and has the youngest population in Europe, with just over 47% aged under 35 years old. Ireland's population will continue to expand over the coming years and will likely exceed five million by 2021, 6.2 million by 2041 and 6.5 million by 2046. By 2046³, it is estimated that close to 23% of the population will be aged over 65 – up from just over 12% today. This changing demographic structure will have significant implications for plans to accommodate the associated growth of demand for services such as third-level institutions. Ireland's ability to respond to current and future capacity pressures is one of the biggest threats to the national competitiveness and economic well-being.

CIT and ITT are located in the counties of Cork and Kerry respectively and these two counties together form the NUTS3⁴ South-West region of Ireland. These two counties, along with the four counties of Clare, Limerick, Tipperary and Waterford, form the Munster region.

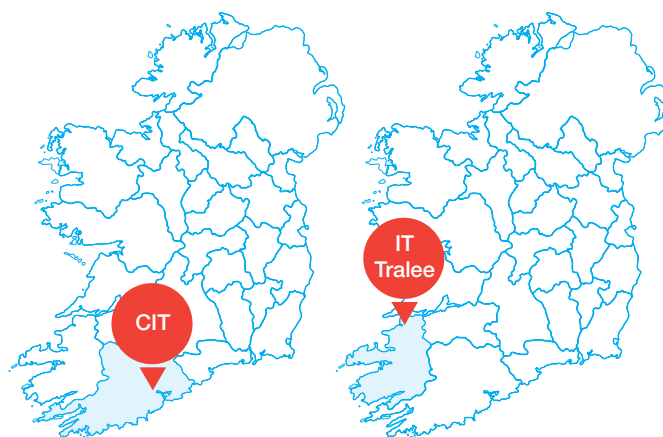


Figure 1: Location of CIT and ITT in the South-West region of Ireland

In 2016, the population of the South-West region was 690,575 (542,868 in Cork and 147,707 in Kerry), which is 14.5% of the total population of the State, with an increase in population of 19% since 2006. The Central Statistics Office (CSO)⁵ predicts that over the period 2016-2031 the population will increase annually by 0.5% in the South-West region. Ireland has the highest proportion of young people who have successfully completed third-level education in the EU. In Ireland, 43.3% of people currently in the labour force are educated to at least degree level⁶. This varies substantially across regions and local areas. In Cork City almost five in every 10 people in the labour force have completed at least a level 7 degree, and almost four of every 10 in Kerry hold a level 7 degree (see Table 1). In Q4, 2016 third-level graduates had the lowest unemployment rate at 4%⁷.

² Population and Migration Estimates April 2018, CSO <https://cso.ie/en/statistics/population/populationandmigrationestimates/>

³ Local Economic Indicators 2018, Doing Business Locally, Ibec, October 2018 [https://www.ibec.ie/IBEC/Press/Publicationsdoelib3.nsf/vPages/Newsroom-ibec-publishes-latest-local-economic-indicators-01-10-2018/\\$file/Ibec+Local+Economic+Indicators+-+2018.pdf](https://www.ibec.ie/IBEC/Press/Publicationsdoelib3.nsf/vPages/Newsroom-ibec-publishes-latest-local-economic-indicators-01-10-2018/$file/Ibec+Local+Economic+Indicators+-+2018.pdf)

⁴ The Nomenclature of Territorial Units for Statistics (NUTS) was drawn up by Eurostat in order to provide a single uniform breakdown of territorial units for the production of regional statistics for the European Union

⁵ Population and Migration Estimates April 2018, CSO

⁶ Local Economic Indicators 2018, Doing Business Locally, Ibec, October 2018

⁷ National Skills Bulletin, 2016

	Cork City	Cork County	Kerry	National
Population ⁸	125,657	417,211	147,707	4,673,700
Under 35 (%)	48.7	46.2	49.8	47.2
Over 65 (%)	15.7	13.0	16.9	13.3
Key indicators – skills ⁹	Cork City	Cork County	Kerry	National Average
Participation rate (%LF)	58.3	67.7	65.9	65.2
Third-level graduates (%LF)	47.4	43.3	38.1	43.3
Concentration of STEM grads (%LF)	10.6	7.1	5.6	7.1
Key indicators – enterprise ⁹				
IDA Ireland ¹⁰ jobs per 10,000 (LF)	1,516.00	1,516.0	353.5	1,034.90
LEO ¹¹ jobs per 10,000 (LF)	146.6	144.1	170.3	184.3
EI ¹² jobs per 10,000 (LF)	1,117.2	1,117.2	789.8	1,029.5

Table 1: Relevant key indicators by local authority area for Cork City, Cork County and Kerry compared to the national average

The availability of a skilled workforce is essential to the creation of Irish companies and in attracting new companies to locate in Ireland. A key strategic priority of The National Strategy for Higher Education to 2030¹³ is to maintain and develop high-quality research and innovation. Ireland is recognised for its skilled workforce and concentration of science, technology, engineering, mathematics (STEM) graduates. Cork City at circa 10% has a high concentration of STEM graduates in the local labour force

(national average is 7%). With a population representation of 14.5% of the nation, the South-West region accounts for 17.7% of the national gross value added (GVA)¹⁴. The Q2 2017, ILO¹⁵ unemployment rate (15-74 years) for the South-West was 4.8%, was the lowest of all Irish regions¹⁶. Figure 2 shows that industry is the largest sector of employment, followed by wholesale and retail in the South-West region for Q2, 2017.

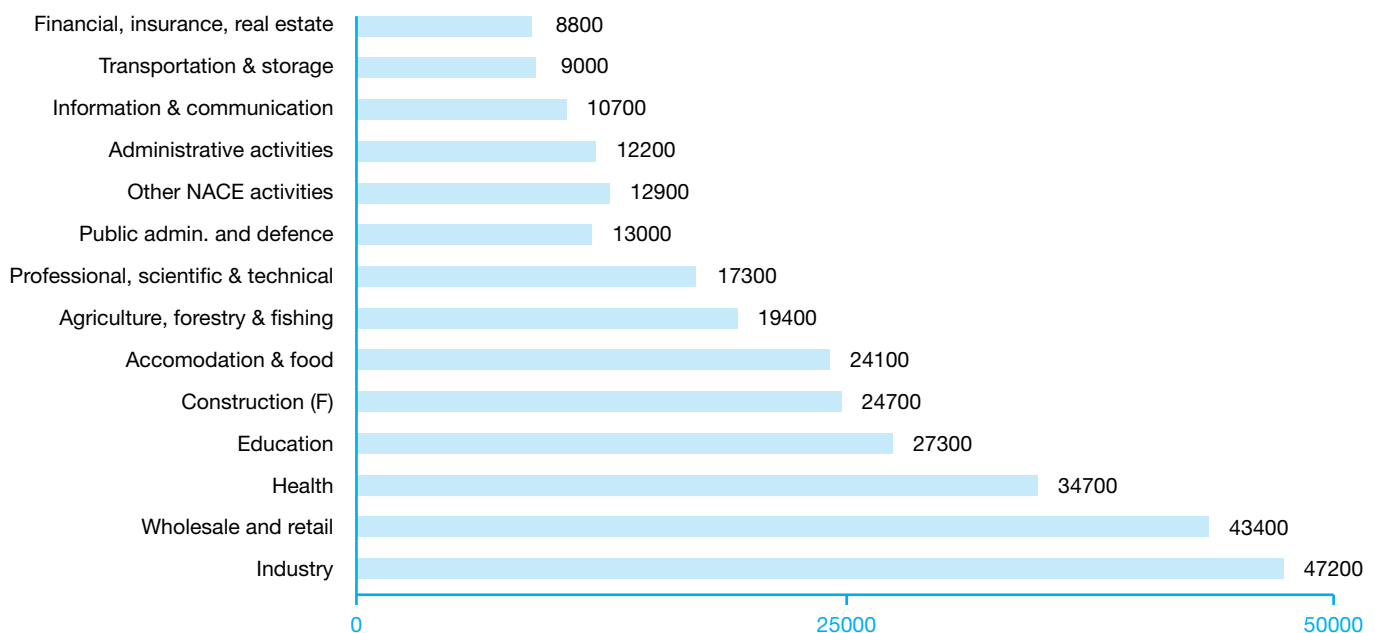


Figure 2: Employment by economic sector (South-West), Q2, 2017¹⁷

⁸ Population and Migration Estimates (April 2016), CSO, <https://www.cso.ie/en/releasesandpublications/er/pme/populationandmigrationestimatesapril2016/>
⁹ Local Economic Indicators 2018, Doing Business Locally, Ibec, October 2018
¹⁰ Industrial Development Agency Ireland (IDA Ireland) – Ireland’s inward promotion agency that works with companies in the set up of their operations in Ireland
¹¹ Local Enterprise Office (LEO) – provides advice, information and support to companies starting up or growing and has 31 dedicated teams across the local authority network in Ireland
¹² Enterprise Ireland (EI) – the State economic development agency focused on helping Irish-owned business deliver new export sales
¹³ National Strategy for Higher Education to 2030, Report of the Strategy Group, 2011
¹⁴ CSO County Incomes and Regional Accounts, 2015 <https://www.cso.ie/en/releasesandpublications/er/cirgdp/countyincomesandregionalgdp2015/>
¹⁵ International Labour Organisation (ILO). The ILO is the internationally recognised measurement of unemployment. The definition of 'unemployed' used by the ILO does not include some people who are entitled to unemployment payments, and therefore included on the Live Register
¹⁶ CSO, Quarterly National Household Survey, QNQ22, October 2018 <https://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/saveselections.asp>
¹⁷ CSO, Quarterly National Household Survey, QNQ40, October 2018 <https://www.cso.ie/en/statistics/labourmarket/quarterlynationalhouseholdsurvey/>

The sectors with the largest enterprises across the South-West region exist within the manufacturing arena, with a particular emphasis on high-tech manufacturing, reinforcing the demand for qualified STEM graduates. Tourism remains a significant employer across the region, accounting for employment in accommodation and food standing at 7.9% across the region. In total the region has approximately 34,400 active enterprises representing a substantial and varied client group which will benefit further from the engagement activities that will result from the value-added brought about by the creation of MTU.

As outlined in the Regional Labour Markets Bulletin 2016¹⁸, knowledge intensive services (market, high-tech and financial) account for 12% of the region's employment; in Q4 2015; 41,500 persons in the South-West region were employed in manufacturing; 40% were employed in high-tech manufacturing activities (pharmaceuticals, electronics, optical products etc.); and 48,200 persons were employed in professional occupations, while over 29,000 were employed in associate professional occupations, combined these two occupations accounted for over a quarter of employment.

Given its demographic and economic profile, the South-West region, along with the main national centre of Dublin, has potential for immediate and sustained growth. MTU will respond to the changing skills needs of the region through the development of flexible programmes of study to suit the changing demographic nature of the region. MTU will continue to develop and enhance curricula and research opportunities through stakeholder engagement ensuring that the changing demands of regional enterprise, professional occupations and the community are realised.

Ireland has been identified as a 'Strong Innovator' in the European Commission's European Innovation Scoreboard 2018; placed first in three out of the 10 innovation dimensions: innovators, employment impacts and sales impact¹⁹. Based on the strength of the region in terms of population density, economic output, enterprise activity, innovation profile and growth potential, it is evident that the necessary elements exist for the creation of a vibrant successful technological university. MTU will span the region, serving the needs of its population and enterprises and participating in its ongoing growth and success.

MTU Meeting the Challenges of Higher Education in an Irish Context

The Expert Group on Future Funding of Higher Education²⁰ has highlighted a number of significant challenges facing higher education in Ireland. Institutions need to adapt and respond to the fundamental changes. Higher education institutions need to become more responsive to the changing needs of the economy, society and public sector in the medium and long term.

MTU is ready to face these challenges through its commitment to the region demonstrated via its approach to engagement, research, programme provision, practice-based teaching and learning and inclusivity.

The South-West region will not only derive both economic and societal benefits from MTU but also contribute greatly to the development and progress of MTU itself. MTU will be a catalyst for positive change, development and support across the region, providing the required human and intellectual capital supply to ensure sustained growth. The stakeholders across industry, enterprise and the public sector will continue to have the opportunity to inform new programme design and development while engaging with cutting-edge technology and research initiatives. The increased development of human capital driven by MTU will lead to wider social capital and, in turn, sustainable societal change. MTU will reinforce the Irish reputation for academic excellence and progress the concept of the technological university in the Irish higher education sector to that of a globally recognisable brand.



¹⁸ Regional Labour Markets Bulletin 2016; Expert Group on Future Skills Needs, October 2016

¹⁹ <https://ec.europa.eu/docsroom/documents/30201>

²⁰ <https://education.ie/en/the-education-system/higher-education>

MTU will deliver more than the sum of its two constituents' parts. As we outline in Chapter 10 MTU will generate a net economic impact of between €156m and €224m²¹ for the South-West region over a 10-year period. The research capacity of MTU will provide a platform for increased research investment, which is expected to create a regional GDP increment of between €26m and €52m in the South-West region.

Timeline of Project Activities

MTU consultation has been ongoing since the publication of the National Strategy for Higher Education to 2030 and Table 2 shows a high-level overview of the key milestones since 2011.

Date	Activity
January 2011	Publication of the National Strategy for Higher Education to 2030
February 2012	Higher Education Landscape Document provided detail on the process and criteria for TU designation
July 2012	Submission to HEA: Higher Education Landscape and Technological University
November 2013	Information and consultation meetings held with staff and students in CIT and ITT
June 2014	Submission to HEA: Establishing the Munster Technological University
September 2014	MTU partners meet jointly with the International Review Panel
December 2014	International Review Panel Report published
June 2015	MTU Integration Agreement approved by both Governing Bodies
March 2017	MTU Programme Oversight Board established and Project Sponsors agreed
March 2017	MTU Project Management Office established
Nov/Dec 2017	MTU information sessions with staff; 29 staff information sessions with 413 staff across six campuses over 12 days
March 2018	Technological Universities Act 2018 signed into law
May 2018	MTU representatives met with a sub-group of the HEA board to outline funding requirements for MTU with respect to the Higher Education Landscape Funding call
Throughout 2018	CIT and ITT presidents, Governing Body chairs and chair of the MTU Oversight Board met with the Tánaiste, Minister of State for Higher Education and Department of Education officials to discuss progress on the MTU Programme and associated dates for the final submission and planned designation date
June 2018	Work commences on the guiding principles in the organisational design for MTU
August 2018	MTU Business Case and Economic Impact Study completed
February 2019	MTU Application submitted to the Department of Education and Skills

Table 2: Timeline of key milestones to date



²¹ Economic Contribution and Impact of MTU, Dr Matthew Fannin, September 2018

The MTU Project

The completed MTU project will see the development and delivery of an organisational architecture and system of governance and management, which will support the delivery of a regionally dispersed multi-campus technological university.

The MTU project is divided into three main phases: pre-merger, designation period and post-merger. Each phase is characterised by a specific focus of activity, which reflects the priority tasks that must be completed during that phase. During the pre-merger phase, the focus has been, and continues to be, on putting the essential foundations in place, including:

- > Governance;
- > Management and executive structures;
- > Organisational structures;
- > Administrative services;
- > Infrastructure;
- > Resources;
- > Common policies and procedures.

It is planned that at designation date there will be a smooth and successful transition from operating as two separate institutions

to operating as a single entity. The post-merger phase will focus on the deeper integration of all aspects of the new technological university to ensure that the benefits envisaged are realised as quickly as possible.

Programme Oversight Board

A Programme Oversight Board (POB, Figure 3) was established comprising:

- > An independent external chairperson;
- > Two chairs of Governing Bodies;
- > Two presidents;
- > Two project directors;
- > One international higher education advisor;
- > Five sponsors drawn from the executive membership of both institutes.

The POB is the key vehicle for authoritative decision-making and for ensuring that the delivery of outcomes are in line with key milestones, quality, cost and time requirements. An early decision was taken to establish a risk register to ensure all risks are recorded, including all mitigating actions. This has been providing a basis for analysis of any strategic, programme, operational or project risks.

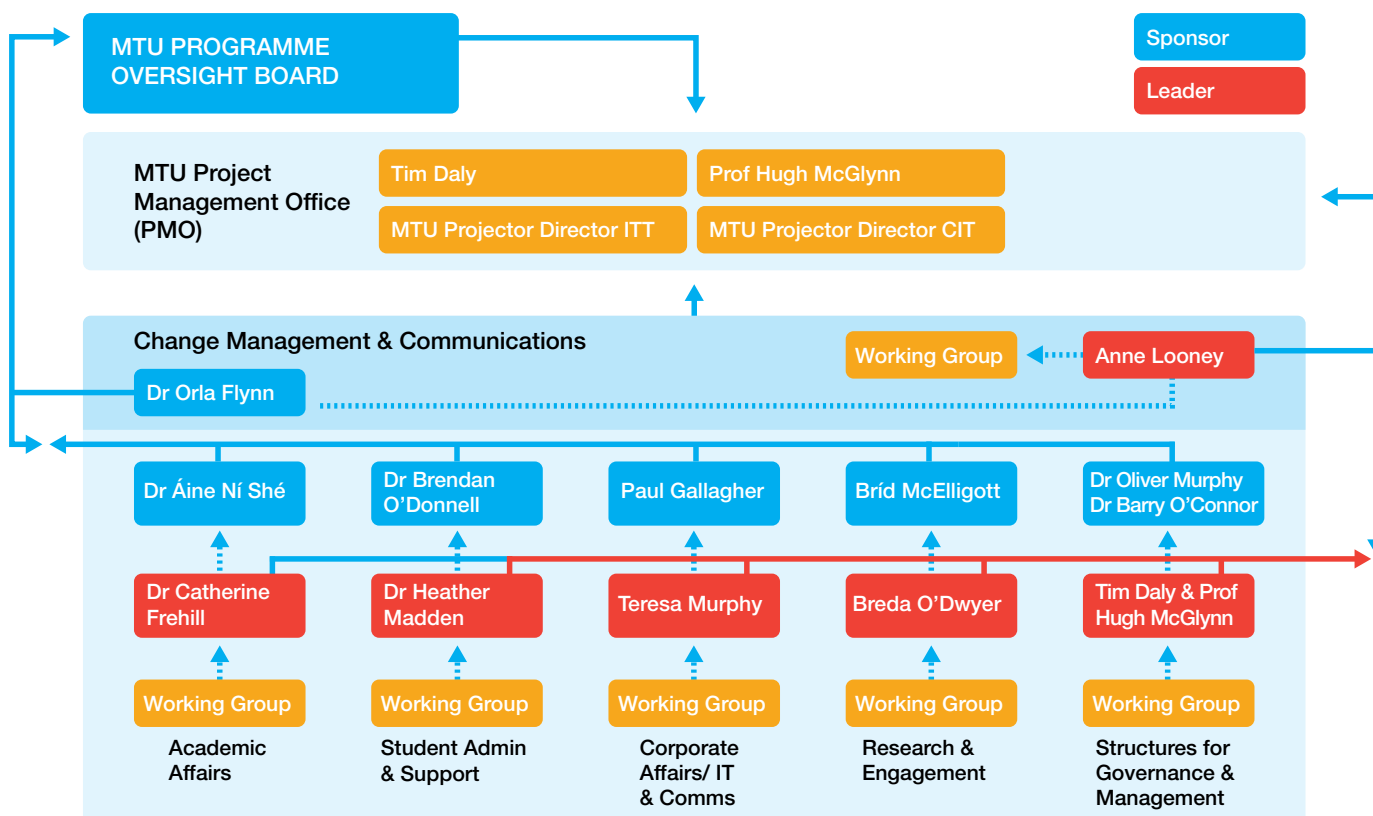


Figure 3: MTU Programme Oversight Board

The MTU project approach, as shown in Figure 4, was developed by the MTU POB with assistance from an external consultancy support service PricewaterhouseCoopers (PwC).

MTU Programme Oversight Board	A single MTU Programme Oversight Board is the ultimate decision making authority of the MTU Programme.
Project Director	One Project Director from each institute will drive and manage the Programme on a day-to-day basis supported by the Project Management Office which comprises the Project Leaders and the PMO Admin.
Project Sponsor	Each Project is sponsored by a Project Sponsor who ensures the Project meets their objectives and delivers the planned outcomes by providing leadership, guidance and decision-making.
Project Leader	Each Project is assigned a Project Leader to manage all aspects of the Project from initiation to closure.
Working Group	Each Project will be supported by a Working Group that will be responsible for implementing the relevant Project by carrying out Project related tasks.

Figure 4: MTU project approach

As can be seen the MTU Project was divided into six programmes of work reflecting the main activities and support services to be operationalised in the new technological university. Each programme of work had a working group made up of staff from the two institutions and a leader responsible for operationalising the work stream. A member of CIT/ITT executive was identified as a ‘sponsor’ for each work stream to add authority to the deliberations and to resolve issues.

The POB has prioritised a focus on consultation and communication throughout the development process drawing upon the widest range of experience from within and outside the two institutes. Numerous briefings, consultations, meetings and workshops with stakeholders including senior management, staff, students, Governing Bodies and external stakeholders have taken place.

The work stream ‘Change Management and Communications’ was especially designed to span all other work streams to ensure that there has been effective communication and engagement with key stakeholders especially students and staff. Various meetings and workshops with staff from both institutes have been held throughout the process to date. These have ensured that

staff are getting to know each other, are building relationships and collaborating. Staff involved in meetings and workshops to date have been proactively engaged, committed and positive about the MTU development. Their contributions and insights have been key in assisting with planning as they see MTU as an opportunity to look at innovative ways of developing processes.

Union engagement has been ongoing with TASS unions as the MTU project has developed. TASS union industrial relations (IR) liaisons have been in place in both CIT and ITT since 2014. TUI members were involved in national industrial action from April 2015 to June 2017. With the allocation of designated time for TUI involvement in the MTU Project and following multiple engagements in the development of an MOU between October 2018 and January 2019, significant progress has been made. Management will continue to consult with the TUI as the project progresses. Meetings have also been held with the other key stakeholder via the Students’ Union executives of both institutes. The Students’ Union executives have engaged with the student body as a whole through their various fora. The Students’ Union presidents sit on the Governing Body of each institute where MTU updates are regularly provided. Communications and engagement with the student body is seen as vital in the advancement and success of MTU.

Whilst the POB has had ultimate responsibility for progressing the MTU project, the day-to-day organisation has been undertaken by the MTU Project Management Office (PMO) overseen by two project directors, one from CIT and one from ITT. Since the establishment of the MTU PMO in March 2017 the programme team has been meeting weekly online, in addition to monthly face-to-face workshops.

In three programmes of work, project plans have been consulted on, developed and finalised:

- > Student Administration and Support
- > Corporate Affairs / IT & Comms
- > Change Management and Communication

Led by the project leaders, several sub-projects have already commenced for these programmes of work. Project plans are currently under development and consultation in the remaining programmes of work:

- > Academic Affairs
- > Research and Engagement

At the time of writing these are on target to be completed.

The requirements for merger and subsequent designation are significant including the integration of major systems like HR, finance, payroll, student records and IT systems and processes like admissions, assessment and library. A key element in the developmental process has been the identification, analysis and evaluation of existing systems, processes, policies and procedures with a view to developing project plans which are efficient, effective and in place in a timely manner prior to merger. A substantial volume of preparatory work has been completed and through the consultations, discussions and workshops held to date, a clear picture has emerged of the developmental agenda, the body of work still to be undertaken and where the main challenges currently lie. As is to be expected, extensive planning and preparation will continue on various aspects of the project, up to and beyond the date of designation and as the new MTU culture is developed. Prior to the point of merger, implementation of essential structures and systems of the new technological university will be put in place, to ensure that crucial services will be operational at the time of designation.

The Foundations of MTU

As indicated above, the development of MTU is a gradual process which will go beyond designation day. Cooperation to date between the two institutes has been progressive and where they have been able to act as one they have.

Some key decisions have been made early in the deliberations to establish the framework for the new MTU and they include:

- > The vision, mission, and values of the new technological university as detailed in the next chapter.
- > Good governance arrangements have been identified as essential to the development and operation of MTU, underpinning its responsibilities as a transparent and accountable technological university.
- > The approach to governance as set out in the current Code of Governance, which was published by THEA in January 2018, for institutes of technology and new technological universities, seeks to preserve the balance between accountability and autonomy. Both institutes have committed themselves to this current code and remain committed to achieving the highest possible standards.
- > A single Governing Body with member competencies reflecting the requirements of a modern technological university will be established, drawing upon the best available individuals regionally, nationally and internationally. MTU's Governing Body will be the technological university's decision-making authority, and it will be constituted in line with the provisions of the Technological Universities Act 2018 – with between 14 and 22 members, including the president and chairperson. The members will be representatives of both academic and professional staff, representatives of both undergraduate and postgraduate students, nominated external members, three members nominated by the Minister, and one member nominated by local education and training boards. This will be in place by designation day.
- > There will be a single Academic Council, the representation of which will be in line with that outlined in the Technological Universities Act 2018. This will be in place by designation day.
- > MTU will be a single integrated institution with governance, management and academic structures designed to ensure consistency of treatment and experience for all members of the technological university community.
- > Priority will be given to the development of a single set of academic policies and procedures for MTU which adhere to good international practice and are consistent for all MTU students and staff.
- > Key principles, designed to enable the establishment of an institution that is flexible, responsive and has an inclusive ethos will underpin the design of the MTU organisation and management structures. The design will:
 1. Support the creation of a teaching and learning work environment that attracts, empowers and retains staff, providing opportunities for development, and ensuring that talents and expertise are appropriately recognised and utilised.
 2. Be forward-looking in creating a modern technological university by building on the cultures, capabilities and achievements of the founding organisations, and optimising their collective potential.
 3. Support a consistent, equitable and high-quality student, staff and alumni experience, in the most efficient and effective manner across MTU.
 4. Be flexible, dynamic and agile, to support an innovative approach across all its activities, and in responding to the opportunities and challenges presented by the environment in which it operates.
 5. Provide clarity and reassurance to staff, students and other key stakeholders in terms of transparency, accountability and responsibility.
 6. Enable and empower leadership and decision-making at the most appropriate level in the management structures.
 7. Support engagement with enterprise in graduate formation and will recognise the role of long-term mutually beneficial relationships informing relevance and currency of the curriculum.

and scholarship and disseminates this knowledge to meet the needs of society and enterprise. A technological university has particular regard to the needs of the region in which it is located. In this case MTU will serve the needs, challenges and opportunities of the South-West region of Ireland as outlined in Chapter 1.

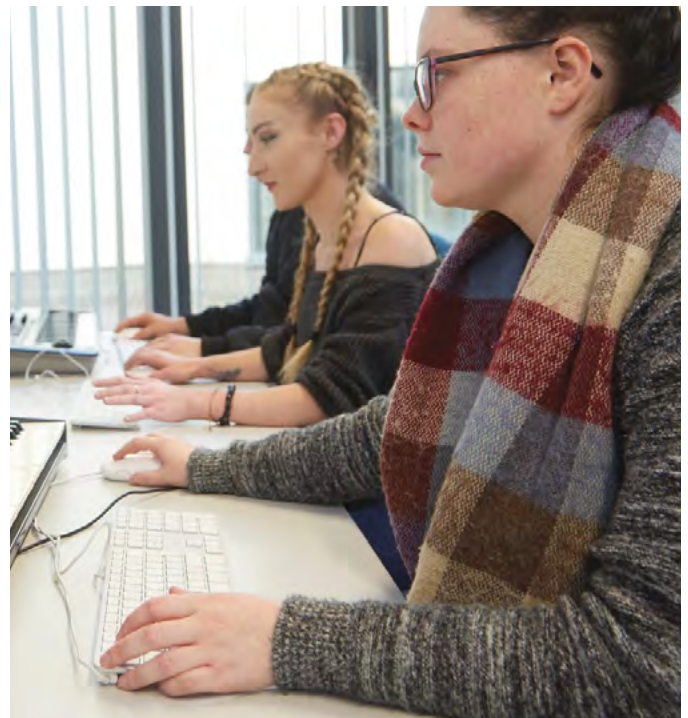
A technological university is characterised by the breadth of its programme provision across higher education levels 6 to 10 of the National Framework of Qualifications (NFQ). It has programmes of study that are professionally-oriented to meet the social, cultural and economic needs of the region. Research is primarily focused on fundamental, problem-oriented research and discovery, with effective knowledge transfer alongside the provision of consulting and problem-solving services that are relevant to the region. The technological university supports intensive and broad-based links with regional business, enterprise, professions and related stakeholders that inform curriculum, teaching and learning, assessment and research.

Having reviewed the functions of a technological university as outlined in the Technological University Act 2018, the main functions can be categorised as follows:

- > Provision of teaching and learning;
- > Support student development and student opportunities;
- > Support entrepreneurship, enterprise development and innovation;

- > Provision of research;
- > Serve the community and public interest.

What follows in this chapter will describe MTU, including its vision, mission, values and essential characteristics, and demonstrate how the proposed institution clearly addresses the functions of a technological university. Table 4 below summarises the key characteristics of our technological university.



Chapter	Our Technological University				
3	Vision	Leading transformation through education			
3	Values	Inclusive	Engaging	Dynamic	Bold
3	Mission	To lead change and, through education, empower people for a successful future in a globalised world			
3	Key characteristics	Person-centred	Open and outward-facing	Commitment to excellence and quality	Commitment to internationalisation
	TU Functions				
5	Provision of teaching and learning	✓	✓	✓	✓
6	Support student development and student opportunities	✓	✓	✓	✓
7	Support entrepreneurship, enterprise development and innovation	✓	✓	✓	✓
8	Provision of research	✓	✓	✓	✓
9	Serve the community and public interest	✓	✓	✓	✓

Table 4: The key characteristics of our technological university

²² <https://www.oireachtas.ie/en/debates/question/2016-06-21/186/grow>

The Vision for MTU

Leading transformation through education

MTU’s vision is deliberately bold. It will embrace change through its delivery of the technological university functions.

The Mission of MTU

To lead change and, through education, empower people for a successful future in a globalised world

MTU will embody this mission by leading change through its culture and people, through relevant multi-disciplinary programmes and an innovative approach to teaching and learning, research and engagement. MTU will plan for tomorrow and be consistently relevant. MTU will create opportunity through flexible lifelong learning and will ensure access for a wide variety of people at every stage in their learning process, enabling them to achieve their real potential. MTU will deliver agile, student-centred learning and career-focused education, research and innovation. MTU will be committed to supporting the regional economy.

The Values of MTU

Values capture what MTU is and how it will act, engage and treat the communities it serves. MTU’s values will be constant and will guide the development of its strategic imperatives now and into the future.

Inclusive: At its core MTU will be all about people. MTU exists to provide educational pathways to all, helping people invest in their future potential through lifelong learning. MTU will work in collaboration with a multitude of students at different levels and stages in their learning cycle, as well as businesses and communities at home and abroad, to deliver the best education for the world of tomorrow.

Engaging: MTU will both engage and be engaging; investing in understanding and collaborating with students, staff, employers, regional and global enterprises and government. MTU will demonstrate its vision and ambition exhibiting its values through dialogue and action.

Dynamic: MTU will be a responsive and agile multi-campus regionally based technological university. MTU will respond to the needs of local, regional and international communities. The technological university will be designed to support an innovative approach across all its activities.

Bold: MTU will recognise the need to take managed risk to deliver economic and technological impact. MTU will be a positive force for change in its pursuit of educational and technological innovation for tangible economic and social impact. MTU will inspire people to realise their potential.

MTU Defining Characteristics

In order to fulfil the functions of a technological university, CIT/ITT, working together have identified four defining characteristics of MTU:

- > A person-centred technological university
- > An open and outward-facing technological university
- > A commitment to excellence and quality
- > A commitment to internationalisation

A Person-Centred Technological University

MTU will ensure a person-centred approach in all its activities. A person-centred organisation is a learning organisation, continuously developing and improving the skills of its students and staff. As outlined above, our mission will be embodied by leading change through our culture and our people. The person-centred ethos of MTU will be evident through; visionary leadership, shared values and beliefs, opportunities for students, staff and stakeholders; a community focus; an empowered and valued staff; individual and organisational learning; partnership and collaboration. For all stakeholders, MTU will endeavour to create a culture that is inclusive, diverse, forward-focused and passionate for change.

MTU will deliver a high-quality experience by providing excellent student-centred teaching and learning, student support and learning resources. Students will be empowered through involvement at decision-making level by representation at various committees and councils, e.g. Academic Council – the main academic decision-making authority of the new technological university.

The creation of MTU offers a unique opportunity to build on the existing staff culture in both institutes. Integral to the MTU future strategic plan is the goal of nurturing the personal development and well-being of its staff. The aim is to foster a vibrant and inclusive culture that crosses disciplines and organisational boundaries.

An Open and Outward-Facing Technological University

MTU will be an open and outward-facing technological university with an organisational culture focused on understanding and responding to the needs of stakeholders.

MTU will be committed to collaboration and knowledge exchange with industry, society and the public sector. It will demonstrate active involvement in collaborations with other HEIs, industry and enterprise partners. These collaborations will involve regional and local organisations, SMEs, social enterprises, schools, alumni and entrepreneurs. MTU will maintain and grow links with research and innovation centres, thereby facilitating technology transfer and enabling dynamic knowledge exchange. MTU will provide opportunities for staff and students to take part in entrepreneurial activities. Staff and student mobility will be supported between academia and the external working environment. MTU will demonstrate a commitment to social and cultural inclusion and to widening participation in higher education to all who have the ability and motivation to benefit from it.

A Commitment to Excellence and Quality

In developing the new technological university, the Governing Body and Academic Council of both CIT and ITT have been mindful of the central importance of quality and the pursuit of excellence. Merger and designation will provide an opportunity to enhance existing quality through the creativity facilitated by the new mix of Governing Body members, management and staff, both academic and professional services staff.

The approach to quality assurance (QA) and enhancement in MTU will be in full alignment with the principles set out in the Technological Universities Act, 2018, the Qualifications and Quality Assurance (QQI) Act 2012, the 2015 European Standards and Guidelines for Quality Assurance (ESG), and QQI published guidelines.

Since 2001 and 2004, CIT and ITT, respectively, have had delegated authority to make their own awards and are therefore fully appreciative of the standards expected of university level institutions. Currently the two institutes hold delegated authority to make awards for taught and research programmes to master's level and make PhD awards in particular research areas including electronic, manufacturing and mechanical engineering, educational sciences, mathematics, arts, computing and science.

The comprehensive quality infrastructure for both taught and research degree provision in place in both institutions will enable the two institutes to make a seamless transition to assuming full degree awarding powers following designation as a technological

university. With authority to make awards from level 6 to 10, MTU will continue to develop, validate, review, maintain and improve the quality of education, training and research it provides.

Building upon the current effective policies and procedures, within the two institutes, MTU will ensure that all QA processes are in line with the mission and vision of the new technological university. A key challenge for MTU will be to ensure that a single unitary quality assurance framework will be in place for designation day. Designing and approving a fully integrated and unitary quality assurance framework within the short time frame before designation day is, of course, challenging. At the same time, QA processes in the academic period prior to designation in both CIT and ITT will be maintained.

MTU will develop a set of key principles to support the technological university in the delivery of the highest standards across the university in its academic, research and operational activities. In developing the principles MTU will be mindful of, and take into consideration, all the knowledge and experience accumulated by CIT and ITT. The key principles of quality assurance will also cover governance, procedural and organisational areas.

Both institutes submit Annual Institutional Quality Assurance Reports (AIQR) and engage with QQI Annual Dialogue Meetings. QQI Institutional Reviews are also completed.

Through the quality processes MTU will continue to embed a quality culture across all aspects of the technological university for the benefit of students, staff and relevant stakeholder communities. A transparent and robust governance structure will safeguard continuous progress in implementing and supporting quality assurance and improvement measures. Appropriate procedures to identify, assess and manage risk will be implemented in order to safeguard and sustain the integrity of MTU's academic excellence.

MTU will also implement policies and procedures relating to the approval, monitoring and development of the portfolio of study programmes. The inclusion of independent external assessors, which include professional, statutory and regulatory bodies and external examiners in the internal and external review processes, will ensure best practice is embedded within MTU.

Building on the existing CIT/ITT School of Graduate Studies and the Research Offices, MTU will oversee quality enhancement in the research and innovation arena. Recognition of the commitment to the development of a quality framework has been

Chapter	Our Technological University				
3	Vision	Leading transformation through education			
3	Values	Inclusive	Engaging	Dynamic	Bold
3	Mission	To lead change and, through education, empower people for a successful future in a globalised world			
3	Key characteristics	Person-centred	Open and outward-facing	Commitment to excellence and quality	Commitment to internationalisation
	TU Functions				
5	Provision of teaching and learning	<ul style="list-style-type: none"> > Modular and semester-based programmes > A choice of programmes at all NFQ levels 6-10 as well as apprenticeship programmes > Programmes offered across a broad range of discipline areas > Flexible modes of delivery allowing students to access education at a time and place to suit their needs within the available offering > CPD opportunities 	<ul style="list-style-type: none"> > Work place and/or work-based learning > Enterprise involvement in programme design, delivery and assessment > Focused curriculum development > Engaging industry experts as adjunct faculty > Industry Advisory Boards for each discipline area > Focus on regional and national skills need 	<ul style="list-style-type: none"> > Best practice quality enhancement and assurance activities > QQI oversight > Co-design and co-develop programmes > Research informed teaching > Practice-led teaching > Professional accreditation of programmes > Quality benchmarking against international exemplars > Graduate attributes 	<ul style="list-style-type: none"> > Student exchange programmes in and out – Erasmus+ > Staff exchange programmes in and out > Internationalisation of the curriculum > Joint programmes with international partners
6	Support student development and student opportunities	<ul style="list-style-type: none"> > Inclusive access – mature students, students with disabilities and under-represented socio-economic backgrounds > Non-standard access pathways > Recognition of Prior Learning > Holistic development > Online delivery > Online services > Student enterprise programmes > Student Engagement across student lifecycle 	<ul style="list-style-type: none"> > Work placement, internships, work-based projects > Support for student entrepreneurship 	<ul style="list-style-type: none"> > Student feedback via ISSE > Student engagement in curriculum design, development and review > Student participation in programme quality assurance and enhancement 	<ul style="list-style-type: none"> > International exchange > Internationalised curriculum > International work placement/ internship opportunities > Online delivery > Online services
7	Support entrepreneurship, enterprise development and innovation	<ul style="list-style-type: none"> > Embedded entrepreneurship/ innovation > Shared staff with enterprises > Secondments to industry > Recruitment from industry > Industry Representatives on interview and review panels 	<ul style="list-style-type: none"> > Secondments to industry > Recruitment from industry > Co-Researchers 	<ul style="list-style-type: none"> > Benchmarked performance nationally and internationally using standard KTI metrics (e.g. patents, spinouts etc) > Student exemptions by professional bodies 	<ul style="list-style-type: none"> > International partnerships > International projects

TU Functions	
8	<p>Provision of research</p> <ul style="list-style-type: none"> > Researcher career framework > Quality research environment > Facilitated staff engagement in research and PhD development
	<ul style="list-style-type: none"> > Relevant > Collaborative projects with stakeholders > Innovation Partnerships Collaborations with other HEIs
	<ul style="list-style-type: none"> > Delegated authority at level 10 > Benchmarked research performance > Research Career Framework > Citation Index U-Multirank
	<ul style="list-style-type: none"> > Lead or participation in research projects with international partners > Recruitment of international researchers
9	<p>Serve the community and public interest</p> <ul style="list-style-type: none"> > Respect for diversity of values, beliefs and traditions > Working towards Athena SWAN attainment > Inclusivity in workplace > Community based learning > Develop social and civic responsibility amongst students and staff > Credit bearing community service initiative modules
	<ul style="list-style-type: none"> > Strong social and cultural links > Relationships with regional and national stakeholders > Promote entrepreneurial ethos > Staff engaged in public service activities (advisory boards and committees)
	<ul style="list-style-type: none"> > Extended campus with associated feedback loop
	<ul style="list-style-type: none"> > Strong social and cultural links supporting creativity > International diversity across campuses leading to an international presence in the locality

Table 5: Our Technological University



CHAPTER 4 | CRITERIA

Chapter Overview

This chapter sets out how CIT and ITT combined (as MTU) meet each of the criteria for designation as specified in section 28 of the Technological Universities Act 2018.

The figures used for student numbers are from CIT/ITT Student Record System (SRS) returns to the Higher Education Authority (HEA) March 2018. The staff percentage numbers are compiled from CIT/ITT Public Service Number (PSN) Returns to the HEA of September 2018 (combined with syllabus timetable extract for academic year 2018/2019 (AY 18/19)).

“The professional, management, and support staff fully support the formation of Munster Technological University because MTU will offer enhanced educational programmes and opportunities for the people of Munster. It will further underpin the development of the commercial, scientific and industrial sectors in Ireland, thus creating employment opportunities for our graduates.”

Fórsa, SIPTU, and UNITE Trade Unions (representing PMSS)

Student Profile Criteria

Overview

In preparing our submission to meet the student profile criteria, the MTU project office compiled the criteria figures based on the SRS returned to the HEA with respect to period March 2018.

The data presented represents the combined figures of enrolled students who are registered on programmes at levels 8, 9 and 10.

To compile the student results (undergraduate and postgraduate candidates), the factors used included – type of student, age of student, type of programme registered, field of study narrow ISCED (International Standard Classification of Education), participation profile and NFQ level.

To compile the research student numbers – we have included students registered on a programme of education and training (at NFQ level 9 or level 10) where not less than 60% of the available credits assigned are for thesis or theses prepared by the student based on research conducted by him or her (i.e. Programme Type classification 26 and 27). Also included in the figure are students registered on some taught postgraduate programmes (classification type 25) where the contexts are identified in formats which have a research component accounting for 60% of the total credits.



MTU Trajectory Research Student Plan

CIT/ITT currently meets criteria of 4% for research students. As MTU this will increase to 7% within 10 years through the following measures:

- > Expansion of delegated authority to all departments in MTU will increase student and in turn graduate numbers;
- > Providing the best possible governance of research;
- > Enhancement of the staff doctorate programme;
- > Recruitment and retention of talented researchers;
- > Strategic recruitment of international research students;
- > Ensuring that educational programmes are predicated on research excellence and, reciprocally, that research excellence is reflected in educational programmes;
- > Supporting graduate student success while optimising existing resources;

- > Providing and sustaining a high-quality research environment that enables and nurtures the expertise and aspirations of researchers;
- > Supporting new collaborative research initiatives in response to emerging opportunities.

Staff Profile Criteria

Overview

In accordance with the Technological Universities Act 2018, the data presented represents the combined figures of full-time academic staff, who are employed on contracts of permanent whole-time, temporary whole-time or indefinite duration with a full-time equivalent (FTE) of 1 and are engaged in the provision of programmes that lead to an award at honours level 8 or above.

The data encompasses full-time research staff who are engaged specifically in designated research centres.

Legislative Criteria	How MTU Meets the Criteria
S28.1(c) of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor's degree level—	Full-time academic staff (including academic management or management specifically engaged in programme development), contracted on a permanent whole-time, temporary whole-time or contract of indefinite duration with an FTE of 1, delivering at level 8 and above = 546.
(i) at least 90% hold a masters degree or doctoral degree,	Currently 93.22% of staff hold a masters or a doctoral degree or their highest qualification attainment is the highest achievable in their primary qualification degree or masters track. Thus, the criterion has been met.
(ii) at least 45% hold—	Currently, 47.44% of staff possess a doctoral degree or equivalent. Thus, the criterion has been met.
(l) a doctoral degree, or	Currently, 39.19% of staff possess a doctoral degree.
(ll) 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,	Currently, 8.24% of staff hold a qualification to at least honours degree within the framework together with a professional membership or a qualification that is the highest achievable in their profession deemed equivalent.
and	
(iii) not more than 10% hold only the qualifications referred to in subparagraph (ii)(ll);	Only 8.24% per cent hold only the qualifications referred to in subparagraph (ii)(ll); Thus, the criterion has been met.
(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 per cent to at least 65 per cent, the proportion of their full-time academic staff referred to in paragraph (c)(ii);	MTU is required to put in place a strategic plan within six months of designation. This plan will include the trajectory which will satisfy our forward criteria for research in 10 years. (See below). Thus, the criterion has been met.

Legislative Criteria	How MTU Meets the Criteria
S28.1(e) of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80 per cent hold a doctoral degree— (i) the provision of a programme that leads to an award at doctoral degree level, and (ii) the conduct of research;	(i) Currently, 94% of such full-time academic staff hold a doctoral degree. (ii) Currently, 94% of such full-time academic staff hold a doctoral degree. Thus, the criterion has been met.
S28.1(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	Currently, 94% of such full-time academic staff 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 be viewed by the advisory panel as equivalent to a doctoral degree,	Not applicable
and	
(ii) has a record of continued conduct of research in an area relevant to the programme;	Currently 100% of full-time academic staff engaged in the supervision of PhD students have a record of continued conduct of research in an area relevant to the programme. Thus, the criterion has been met.

Table 7: Staff profiles

MTU Trajectory Research Student Plan

CIT/ITT currently meets criteria of 45% for level 10 or doctoral degree equivalent qualified staff. As MTU this will increase to 65% within 10 years at a rate of 2% per year, through the following measures:

- > Enhancement of the staff doctorates programme;
- > Recruitment and retention of talented researchers;
- > Ensuring that educational programmes are predicated on research excellence and, reciprocally, that research excellence is reflected in educational programmes;
- > Supporting graduate student success while optimising existing resources;
- > Providing and sustaining a high-quality research environment that enables and nurtures the expertise and aspirations of researchers;
- > Enabling existing and emerging dynamic research capabilities;
- > Increasing the quantity and quality of research grant applications;

- > Supporting new collaborative research initiatives in response to emerging opportunities;
- > Providing the best possible governance of research.



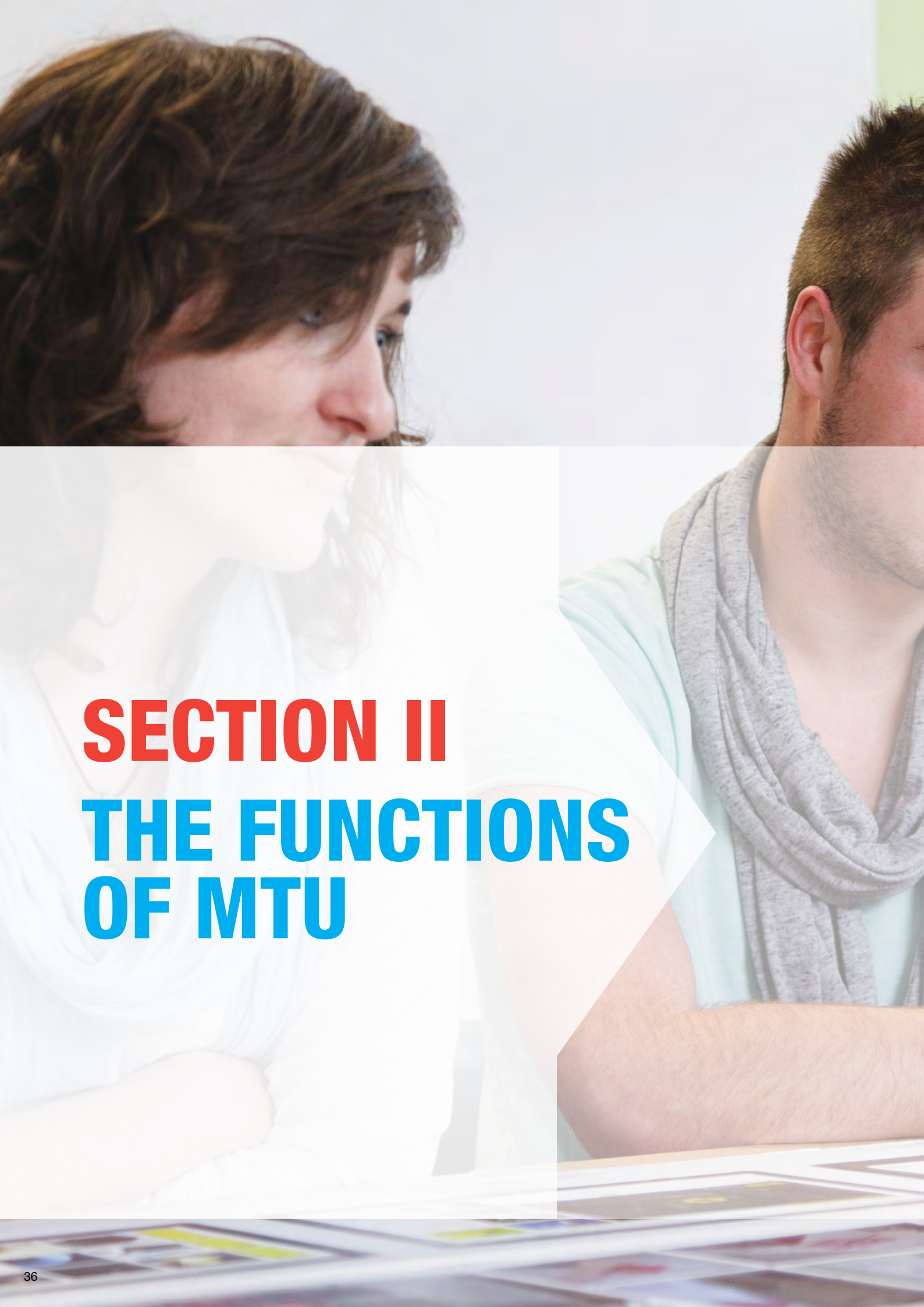
Research Activity Criteria

Overview

Using the SRS HEA data return (March 2018), a filter applied to the ISCED code returned the field of research undertaken by candidates of programme type category 27.

Legislative Criteria	How MTU Meets the Criteria
S28.1(g) in respect of not less than three fields of education—	
(i) the applicant institutes provide programmes that lead to awards to doctoral degree level, and (ii) the academic staff and students of the applicant institutes conduct research;	Programmes leading to doctoral degree level are provided in the following broad ISCED fields of education: 01 – Education 02 – Arts and Humanities 04 – Business, Administration and Law 05 – Natural Sciences, Mathematics and Statistics 06 – Information and Communication Technologies 07 – Engineering, Manufacturing and Construction 09 – Health and Welfare Thus, the criterion has been met.
S28.1(h) in relation to a programme referred to in paragraph (g), the applicant institutes demonstrate, to the satisfaction of the advisory panel—	
(i) that they carry out innovation activity and conduct research to a high standard, and	CIT/ITT is compliant with associated procedures relating to quality assurance regarding the provision and award of doctoral degrees as required by QQI. See Chapters 3, 5 and 8. Thus, the criterion has been met.
(ii) that the innovation and research have 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;	Evidence to support this is contained within Chapter 7 and SED 10. Thus, the criterion has been met.
28.1(i) all programmes provided by the applicant institutes that lead to an award to doctoral degree level comply with any policy relating to doctoral education as may be agreed from time to time between An tÚdarás and the Qualifications and Quality Assurance Authority of Ireland following consultation with bodies representing the interests of an institute, a technological university or a university specified in paragraphs (a) to (d) of section 4 (1) of the Universities Act 1997;	CIT/ITT are currently compliant. Thus, the criterion has been met.
28.1 (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 five years of the date of the making of an order under section 36, from at least three to at least five, the fields of education referred to in paragraph (g);	Programmes leading to doctoral level (PhD Level 10) are provided in seven fields of education as outlined in S28.1 (g) and will continue to grow as MTU develops. Thus, the criterion has been met.

Table 8: Research activity criteria



SECTION II

THE FUNCTIONS

OF MTU



CHAPTER 5 | TEACHING AND LEARNING

Chapter Overview

The aim of this chapter is to provide further detail of the provision of teaching and learning in MTU, the flexible curriculum model, its delivery and the MTU view of graduate attributes and characteristics.

“The designation of the CIT and ITT consortium as Munster Technological University is due recognition of the leading role this consortium is fulfilling in teaching and learning, research, enterprise and community engagement. It paves the way for enhanced resourcing under the Technological Universities Act to expand their mission regionally, nationally and internationally.”

Mr Tim Lucey, Chief Executive, Cork County Council

Provision of Teaching and Learning

MTU will be an exemplar of good practice in professional education. It will pursue this goal through the ongoing adoption of best practice in teaching and learning as follows:

- > Active and collaborative student-centered learning which engages the student's desire to learn;
- > Challenging students to take ownership of their learning experience;
- > Providing a relevant and flexible career-focused curriculum developed in close partnership with enterprise;
- > Exposing students to a range of pedagogical styles;
- > Offering research methods which deliver a range of skills including creativity, inquiry, problem solving and innovation.

These are developed further below.

Programmes

The suite of academic programmes of MTU will reflect the differentiated mission of a technological university, including the creative and performing arts, humanities and business, alongside science and engineering. The goal is to accentuate what CIT and ITT already do well. Both institutes have a dynamic portfolio of programmes highly focused on technical and professional areas, with many programmes recognised by relevant professional bodies. As a new technological university, MTU has the ability and responsibility to build on this solid portfolio.

The enhanced capacity and capability brought about by MTU will enable further development of high quality and relevant programmes of study. Programmes offered by MTU will be, above all else, responsive to the needs of students, employers, the regional and national economy and the broader society. Reflecting close links with business and public agencies, the career-focused, work-based programmes will be developed in response to employer skill needs and will play a pivotal role in meeting the needs of the skills economy. MTU will embed within the curriculum and foster within the university the skills, values and attitudes that are needed to form just and inclusive citizens. MTU will seek to strike a balance between providing programmes which attract sufficient numbers of students, ensuring that those students are employable upon graduation, and providing a suitably qualified workforce to support the various sectors of the economy.

In line with the overall commitment to ensure that the academic provision is responsive to market forces, MTU will continue provision at all levels of the NFQ, including levels 6 and 7. The latter programmes are an excellent route for those not yet ready to embark on a full degree, for mature learners who want to take only a limited amount of time out of the labour market and for employers looking to address specific skills shortages.

At MTU, the current ongoing development of postgraduate provision will be increased, particularly in taught programmes, driven by market forces. There is strong demand from students for such programmes due to the perceived impact of a postgraduate qualification on future employability. MTU planning scenarios predict this to continue. Demand for such programmes is also driven by employers and those in employment, with the goals of enhancing the skill set of the workforce and continuing professional development respectively.

Both CIT and ITT have a significant track record in terms of collaboration and cooperation with partner higher education institutes (HEIs) within the region and nationally, including joint provision of programmes, joint research projects, shared procurement and shared services. The joint programme provision between CIT and University College Cork (UCC) in biological sciences, physical sciences, art education and architecture involve the sharing of academic delivery, facilities and joint awards. Such joint awards were the first of their kind within the Irish higher education sector (SED 12).

MTU's president and executive will work closely with the new Academic Council and together they will develop a strategic plan, to be approved by the Governing Body, which will address the needs of the region, reflect an internationalised approach and meet the needs of stakeholders.

NFQ Levels

MTU will ensure that there are clear progression opportunities between programmes to allow learners to pursue their educational goals irrespective of where, or how, they commence their engagement with higher education. This approach will allow learners who complete a bespoke staff development programme at their place of work to use that learning towards an accredited MTU award and will provide all MTU graduates with opportunities to pursue further studies.

Table 10 presents the current profile (September 2018) of CIT and ITT students by NFQ level. This gives a broad indication of the number of students who will be enrolled at MTU from September 2019.

NFQ Level	Distance/ E-Learning	Full-time	Part-time	Total
Level 6	63	334	1,711	2,108
Level 7	120	4,133	735	4,988
Level 8	71	6,071	773	6,915
Level 9	130	397	454	981
Level 10		103	16	119
Total	384	11,038	3,689	15,111
Occasional students (excluded from SRS return)		80	324	404

Table 10: MTU student profile by NFQ level

MTU will maintain the commitment to continuing the provision in the areas of specialist music and drama training, and craft apprenticeships recognising the importance of this provision to the region and beyond and accepting the responsibility and leadership role of MTU in relation to this provision. The Cork School of Music (CSM) has over 3,000 part-time enrolments for music and drama as part of the part-time Conservatory provision of the School (SED 13). This will be an important and continuing feature of MTU's function of serving the community and public interest. This will be reinforced by the MTU delivering programmes across the main discipline areas, from level 6 through to level 8 on the NFQ, across the MTU campuses.

Apprenticeship programme providers in Ireland have experienced a period of very significant change from 2006 to 2018 as a consequence of economic events, which have had a profound impact on all areas of business activity and development in Ireland. In addition to the significant changes in demand, the Government announced a review of apprenticeship training in Ireland in 2013.

The Technological Universities Act 2018 states that one of the functions of a technological university will be to “support the development of a skilled labour force including, where appropriate, engaging in the education and training of apprentices”. MTU will be ideally placed to address this increasing demand as CIT/ITT have long invested in the development of craft apprenticeship capacity and capability. MTU will be the only entity of its type in Ireland to have created a dedicated centre of excellence in craft studies. CIT/ITT have catered for a doubling of craft apprenticeship allocation over the last three years. MTU will adopt the current apprenticeship policy for both CIT and ITT of ‘Adapt and Grow’ as part of its ongoing strategic development (SED 14).



A Modern Approach to Apprenticeships – Liebherr Container Crane (LCC) Ltd

This programme has been developed collaboratively between the Department of Technology, Engineering & Maths (TEM) at ITT and members of senior management at Liebherr. Its purpose is for apprenticeship students to progress academically along a pathway of lifelong learning. The learning outcomes are mapped against the Higher Certificate in Engineering Technology.

Liebherr recruits approximately 25 new apprentices each year. It is mandatory for each to undertake this programme. These apprentices include electricians, fitters and fabricators. Each stream will be reflected in programme as follows:

- > Electrical technology stream for apprentice electricians
- > Mechanical technology stream for apprentice fitters
- > Material technology stream for apprentice fabricators

The structure of the programme is as follows:

- > Four-year duration
- > Each student will take three five credit modules per year at ITT
- > Each student will also undertake an apprenticeship programme (with Liebherr and Solas) during those four years.

The level 6 Higher Certificate in Engineering Technology has been initially designed for Liebherr apprenticeship students but in time this programme could be rolled out to other students working in different industries. Students who do not take the apprenticeship programme with Solas but complete the modules will be eligible for a minor award in engineering technology.

The apprenticeship students started the programme in 2015 taking modules on a single subject certification basis. It was requested by Liebherr to expand the offering towards a formal qualification allowing the students to simultaneously complete their apprenticeship training. The revised programme is currently going through final validation and it will be approved early in 2019.

Flexible Curriculum

Programmes will be tailored to the needs of learners through flexible credit-based, modular design and through their mode of delivery, thus allowing the learner to control the pace and timing of their learning. Credit-based module design will also provide a responsive mechanism for work-based clients and employers including locating provision in the workplace.

This flexibility for the student is further facilitated by MTU's proposed admissions policies which will include provision for Recognition of Prior Learning (RPL), whether that learning has been gained through formal, in-formal or non-formal settings. In MTU this will continue to be a key enabler in ensuring equity of access, opportunities for progression and facilitating lifelong learning.

While policies and practices to support RPL can be challenging in higher education settings they are fundamental to a diverse and inclusive system. Given the experience of both institutes, MTU will remain committed to quality assured responsive and responsible policies, flexible entry into and progression from programmes of learning. This will enable continuing support for the regional and national skills agenda through initiatives such as Springboard+ and the Regional Skills Forum. Building on over two decades of scholarship and practice, MTU will continue to contribute through research and practice to the evolving national and broader European discourse on RPL validation.

As part of the national approach to internationalisation, MTU will support the mobility of students across international borders both within and beyond the European Higher Education Area. This necessitates engagement and support to ensure that the experience of international students is comparable to domestic students.

In MTU an embedded work-based component will feature in all programmes of study. These will enhance learners' career prospects. Well supported work experience will enhance both the interpersonal and practical skills of the learner. Additionally, employability development activities such as professional practice, networking events and enterprise linked projects will be integrated into programmes of learning. Thus, MTU will ensure that learners have the attributes required to contribute in the workplace immediately upon graduation and along their chosen career paths.

The capacity of the enterprise partners for relevant work focused curriculum development and innovative approaches to programme delivery is illustrated by the relationships with Jaguar Land Rover in the development of the MSc in Artificial Intelligence. The programme modules were developed, and in some instances will be delivered, by leading international experts.

Universities are changing, and the growth of new technologies means that the key to engaging with staff and students across six campuses is through the 'Smart Campus' offering a range of digital channels. From mobile services, including mobile student ID, wireless printing, e-books, digital information boards to online lectures; MTU aspires to implement smart technologies that focus on sustainable, smooth, efficient digital operations and technological integration. The MTU Digital by Default 2030 Strategy aims to design and deliver digital self-service supports to staff, students and alumni of MTU (SED 15). MTU aims to offer a unified, collaborative and connected learning experiences through the cloud. Both institutes currently offer a suite of world-class online programmes. In addition, some programmes are delivered in a flexible blended format, which combine online delivery and support, with some traditional face-to-face elements such as classes, labs, workshops or placements. Programmes are also offered in blended mode to facilitate learning objectives that are seen as being particularly challenging to support, outside of a particular physical context or geographic location. Technology plays a key role in a responsive learning environment.

MTU plans to leverage and extend the existing cloud infrastructure to drive innovation and the fast turnaround of new digital capabilities, services, software and systems. Learning technologies such as Blackboard, Canvas, Adobe Connect and virtualised lab infrastructures are just some of the systems that are used to deliver innovative programmes. This offers great flexibility to students as they can access their lectures and labs any time, anywhere, on any device, irrespective of their physical location or working status.

Staff

Students will directly benefit from lecturing staff who, as well as being strong academically, will be experts in the practical application of their knowledge. Additionally, highly skilled professional staff will continue to support students through their learning journey. Human resource policies will be designed to ensure that MTU staff will be appropriately qualified with relevant experience. The technological university will encourage and assist them to continue to work and research collaboratively with enterprise and the professions.

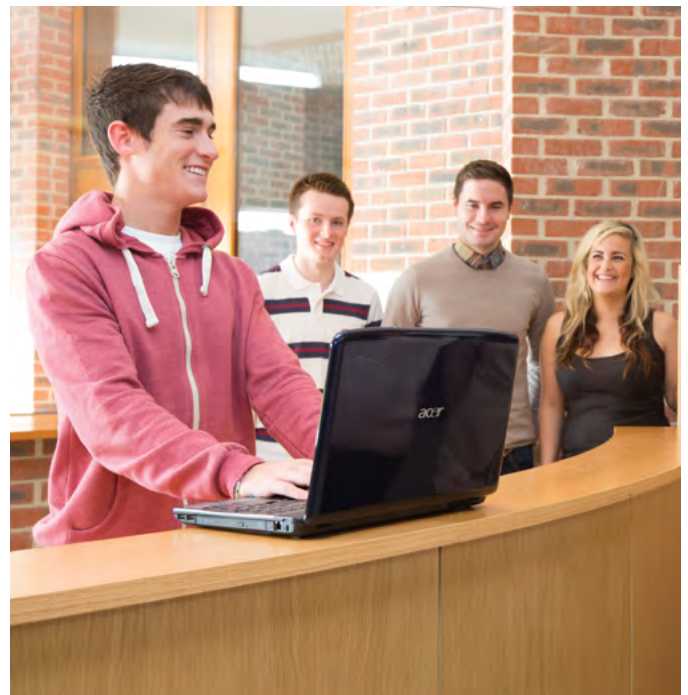
Drawing on CIT/ITT experience, staff will be afforded the opportunities to develop professionally through a Teaching and Learning Unit, with the remit of enhancing pedagogical development.

Students

MTU aims to provide students from all backgrounds with an outstanding education. It will build upon, and expand on, CIT/ITT experience, the curriculum imperatives and digital developments outlined above to equip students with the knowledge, professional skills, and personal qualities to achieve their ambitions. MTU will enable students to develop the key graduate attributes and characteristics expected of its students on completion of their studies.

The MTU student will:

- > Have a broad range of relevant discipline-specific knowledge, skills and competencies;
- > Exhibit personal and professional efficacy and integrity, enabled by the development of a broad range of competencies including interpersonal and communication skills, teamwork, ethics and social responsibility;
- > Be motivated and empowered to be a lifelong learner with a passion for learning which is underpinned by the essential skills of inquiry and scholarship;
- > Have the ability to create and apply knowledge in a variety of professional contexts, having participated in an educational programme which fosters problem solving, knowledge discovery, research and the use of knowledge in real-world situations.





CHAPTER 6 | SUPPORT FOR STUDENT DEVELOPMENT AND STUDENT OPPORTUNITIES

Chapter Overview

In this chapter we outline the support given to students to develop as rounded individuals. We briefly describe the practical support functions, the student-centred opportunities, and the social and cultural opportunities available to MTU student development.

"My qualification and experience from ITT has afforded me the opportunity of a leading and impactful career in a globally competitive landscape. I wholeheartedly welcome and support MTU and look forward to co-creating its expanding and significant impact on the South-West region at an academic, social and economic level. Together we will continue to position the region as a key place to work and live and extend its leading contribution to the wider global economic environment."

Mr Jason Hawkins, CEO, Carbery Group (ITT graduate)

As a first step towards ensuring that there is an effective student experience at MTU, staff and students from both institutes have co-designed an MTU 'student journey' to be used as a template for the strategic development of the students' experience at MTU (SED 16). It will define MTU's internal processes and make the services delivered more person-centred and effective. As part of the process of 'acting as one', the MTU 'student journey' was co-designed by CIT/ITT staff and students together, to create a foundation upon which to develop and enhance the student experience, to maximise their development and opportunities. This approach has provided a structure to assess and improve the quality of existing programmes, identifying processes and services which impact on the student experience and in turn develop new services and programmes. A number of projects have been identified to align, re-design and deliver MTU student support services across the entire student experience.

Practical Support Functions

MTU will support students holistically not just academically or in terms of future career progression. This holistic development of the student will continue to be an integral part of the student experience, ensuring that MTU graduates will contribute not only to the world of work but to society in general (See further details in Chapter 9). All learners at MTU will have access to a wide array of student services helping to address academic and non-academic day-to-day issues.

MTU will provide a comparable student experience on all campuses with a focus on integration and improvement of existing student services. Projects have been identified to align key student services. A framework is being developed to ensure a common approach to the development of services in each area.

- > **Admissions Office:** MTU admissions policy will outline and maximise the entrance opportunities for current and future students onto programmes of learning.
- > **Induction:** MTU will make a positive first impression on all new students through an effective induction programme developed to support students in their transition to higher education. An integrated multi-campus cross-university programme of induction will ensure that all new students receive an equivalent introduction to MTU.
- > **Access and Disability Service:** MTU will ensure widened enrolment from under-represented groups and deliver a range of pre-entry, entry and post-entry support programmes for mature students, students with disabilities, students from linked schools and ethnic minorities, including national programmes such as HEAR and DARE.
- > **Library Service:** MTU will provide a comprehensive digitally connected approach to library services ensuring appropriate access to learning support domains supporting opportunities of learning and research for MTU students.
- > **Examinations and Assessment:** MTU will facilitate appropriate and varied assessment of learning for students. The Examinations Office will support the provision of transcripts and the verification of awards.
- > **Student Support Service:** MTU will provide a range of confidential and professionally run student support services including pastoral care, counselling and health services.
- > **Careers Service:** MTU will provide students with opportunities to leverage their translational and discipline specific skills to maximise their potential career opportunities.
- > **Accommodation Office:** MTU aims to help students find safe, affordable and suitable local accommodation.
- > **Sports and Societies:** The MTU sports and societies strategy will analyse existing offerings and agree an overarching approach, including facilities, funding, sports scholarships and awards.
- > **Student Development and Alumni Office:** MTU will support and engage a growing graduate community. The office will support the transformative student experience building relationships between students, alumni and employer communities.

Empowering Student Entrepreneurship - Student Inc and Discover ITT

Student Inc. and Discover ITT facilitate and support CIT/ITT students to explore self-employment. Both programmes have collaborated with CIT/ITT alumni in their combined support of over 300 business/community/social ideas since 2011. CIT has successfully led a joint application with ITT and UCC for national funding of over €1m to expand Student Inc. in the South-west region.

The Student Inc. Programme in CIT provides students with an experiential enterprise learning opportunity to start a business. The Summer programme is open to all CIT students regardless of year or area of study. The students are based in the on-campus incubator Rubicon Centre, for the months of June, July and August. They work full-time on their business idea side by side with other entrepreneurs based in the Centre. Over the three months they receive training, mentoring, serviced office space, access to the Rubicon Centre Team and the other entrepreneurs in the Centre, as well as seed funding of €4,000. The programme is accredited by the Hincks Centre of Entrepreneurship in CIT, with students receiving five ECTS level 8 credits on successful completion of the programme. Some students continue developing their business after the programme working with the local LEO or participation on New Frontiers or Ignite start-up programmes. While not all Student Inc. participants will continue with their business idea, the skills and experience they gain are invaluable for future career prospects.

Discover ITT led by CEED (Centre for Entrepreneurship and Enterprise Development) is a boot camp style accelerator programme offered to ITT students during the EU recognised annual Kerry Month of Enterprise (SED 17). Students use design driven innovation, LEGO Serious Play and industry led mentorship to scope out the commercial potential of their business/social/community idea. Prototype concepts are further explored with the ITT research centres. They pitch their commercial plans to a mixed discipline panel at the end of the week with the winner receiving six dedicated one-to-one mentor sessions.

MTU will use CIT/ITT alumni in its teaching process. Building upon CIT/ITT experience MTU will capitalise upon the invaluable contribution, insight and guidance through mentoring, guest lectures and practical assignments that alumni are uniquely positioned to offer. Developmental opportunities through a joint mentorship programme will match MTU students with

professionals from a wide range of sectors to exchange business experience, knowledge, expertise and career advice. An MTU Development and Alumni Office will provide access to a network of regional, national and international alumni, who will serve to develop and encourage the growth of these opportunities for students.

As part of their development as students and effective citizens, MTU will provide opportunities for students to engage in a diverse range of activities, including representation on MTU committees, involvement in Students' Union activities and influencing programme development and enhancement. Methods of providing students with the opportunity to develop these skills through participation will include, at MTU, staff-student fora, STEM ambassadorships, Students' Union activity and class representation. MTU students will actively participate in Governing Body, Academic Council, course boards and programmatic reviews to encourage open dialogue and collaboration amongst students and staff and to provide skills of communication and debate.

Social and Cultural Opportunities

Taking a person-centred, holistic approach to student development, MTU will draw on the traditions of CIT/ITT and will encourage student involvement in social, cultural and sporting activities on campus and within local communities (further details are provided in Chapter 9). Both campuses have excellent sporting facilities and have established good partnerships with local and national sporting bodies such as, FAI, IRFU, GAA and Sport Ireland. This ensures that students can develop their highest desired level in areas such as coaching, sports administration, participation and competition. The sporting opportunities offered to students at MTU will be considerably enhanced compared to that offered as two separate institutes, since the indoor and outdoor facilities are complementary and therefore a wide range of opportunities will be available to MTU students. These facilities include the Kerry Sports Academy, CIT Athletics Stadium and a selection of outdoor playing pitches.

The arts and cultural scene at CIT/ITT will provide MTU with a firm foundation, giving opportunities for music, drama and other cultural activities on campus and within the community. Again, there is complementarity in the provision offered, so that MTU students will benefit from wider availability through the facilities, including access to the National Folk Theatre of Ireland (Siamsa Tíre) and visual arts spaces such as the James Barry Exhibition Centre, The Gallery and Pause (CSM). Performance spaces including the 120-seat Rory Gallagher Theatre, the 120-seat black box Stack Theatre and the 385-seated Curtis Auditorium with both live and studio capabilities are utilised by both students and

invited performers. Music studios, rehearsal halls, theatre space, a music library, recording and dance studios all support and host a wide range of cultural events. Collaborations with a range of professional arts organisations will reinforce MTU’s commitment and capacity to forge successful partnerships in and through the arts. MTU will develop a strategy to facilitate student movement between campuses for social, cultural and competitive sporting purposes.

CHAPTER 7 | ENTREPRENEURSHIP, ENTERPRISE DEVELOPMENT AND INNOVATION

Chapter Overview

Engagement will underpin the culture of MTU. This chapter will present how MTU will build upon CIT/ITT history of supporting entrepreneurship, enterprise development and innovation in the South-West region, aligning it to the four characteristics of MTU.

“Supporting entrepreneurial activity will be central to MTU’s mission. Both CIT and ITT have an established track record in supporting enterprise development and championing many initiatives both nationally and internationally. The potential of MTU to add further value to this activity is embedded in the collective drive of both organisations to prioritise and support initiatives in this space.”

Mr Frank Fleming, Founder of Verifish, Cork Chamber Emerging Company of the Year 2019

Introduction

MTU will build upon the entrepreneurial, innovative and creative culture and community that currently exists at CIT/ITT in support of an inspiring student and staff experience. It will build on CIT/ITT support of innovative and entrepreneurial thinking in its teaching, learning and research activities, providing graduates and staff who are confident of achieving their ambitions in a global competitive marketplace. Engagement with the wider community (business, social or cultural) will be firmly embedded in MTU from the outset and aligned with sector and regional needs.

CIT/ITT exist in a region which has a wide geographical spread, and which has an urban and rural mix with a wide range of community and social stakeholders spanning private and public sectors. These range in size from micro businesses to SMEs to large multi-national corporations. The food, pharmaceutical, fintech, biopharmaceutical, agri-tech, manufacturing, tourism and ICT industries are active in the South-West region. Leading global companies within these sectors located in Cork/Kerry include

Kerry Group Plc, Boston Scientific, Fexco, PFH Technology Group, Pfizer, Dairymaster, JRI America, TrendMicro and the TLI Group (Transition Links Ireland). The South-West region contains some of the world’s most productive dairy producing land and the second largest natural harbour on the globe. It remains a world-class travel destination for tourists and contains several educational and research hubs of international importance. MTU together with its many stakeholders in the region will work together to support the development of the region into the future.

According to the Project Ireland 2040 National Planning Framework²⁴ the big challenge for the South-West region in the period to 2040, will be to position its cities as more significantly scaled, while also more compact and attractive, acting as metropolitan drivers for the region as a whole and as effective complements to the economic strength of Dublin. Ensuring a balanced approach in activating and realising much underutilised potential in wider rural towns and dispersed communities will also be a priority.

The South-West regional area consists of counties of Cork and Kerry. Located beyond the Cork City functional area, North and West Cork share similarities with neighbouring County Kerry, being more rural in character, with extensive coastline, supported by a variety of large and small towns with global reach. Many of these towns have a high degree of self-containment, operating as significant local employment and service centres for a large rural hinterland.

Project Ireland 2040 identifies a number of place-making policy priorities for the South-West region. These include preparation and implementation of a regional rejuvenation priorities’ programme harnessing the potential of the region across the technological spectrum, along with measures to support the integrated development of remoter parts of this region. MTU will work with its many stakeholders to respond to these challenges and priority areas through its teaching and learning, research and engagement.

MTU Engagement Strategy

MTU will develop engagement as a key pillar in the MTU knowledge ecosystem and this will be achieved through the creation of an overarching MTU Engagement Strategy and through the development of an integrated multi-campus engagement infrastructure. In order to maximise its impact on the region, MTU will create an engagement infrastructure that will build on CIT/ITT collaboration between its staff, its students and its regional, national and international partners. It will build on the multi-stakeholder partnerships established by CIT/ITT. A more detailed description of the diverse range of these partners is presented in SED 18.

²⁴ <http://npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf>

MTU will build upon CIT/ITT stakeholder engagement to inform its teaching and learning and research activities in support of the economic development of the region. Some of these collaborative examples to date include:

- > Contribution to programme of study design, delivery and assessment; (SED 17, 18)
- > Contribution to programme delivery through visiting lecturers; (SED 17, 18)
- > Co-developed programmes; (SED 4, 6)
- > Involvement in quality assurance processes; (further explored in chapter 5)
- > Mentoring in the workplace; (SED 18)
- > Use of MTU facilities for cultural, social and development purposes; (SED 13, 19)
- > Knowledge transfer; (SED 20)
- > Spin-outs and spin-ins; (SED 20)
- > Incubator units; (SED 18)
- > Consultancy (both ways); (SED 18)
- > Conferences; (SED 18)
- > Joint research projects; (SED 18)
- > Joint funding bids. (SED 18)

MTU's strategy towards entrepreneurship, enterprise development and innovation will be underpinned by the technological university's quality assurance policies. Experience within the HEI sector recognises that quality assurance is a complex process in relation to the more innovative aspects of a technological university's engagement with external partners. Partnerships, work-placements, staff exchanges and flexible provision create issues over and above those normally associated with quality processes. MTU will draw upon the expert guidance of QQI and the relevant professional bodies to put in place innovative and effective processes to ensure the quality of its provision and of the student experience.

MTU Regional and National Engagement

The Government's Expert Group on the Future of Higher Education have highlighted a number of significant challenges facing higher education in Ireland²⁵. CIT/ITT recognise the role that MTU will play in the future Irish higher education strategy in support of entrepreneurship, enterprise development and innovation. MTU will be well positioned to meet the challenges presented by the economic social and cultural imperatives in the South-West region.

The Regional Skills Forum is one of the channels by which CIT/ITT have engaged with business and industry. MTU will continue to work in partnership with this organisation to meet this key strategic goal of supporting entrepreneurship, enterprise development and innovation. This collaboration with regional industry has proven to be highly effective in developing new and enhanced programmes to meet the needs of business, industry and the professions. MTU will draw upon the existing CIT/ITT modalities of delivery and enhance them to support engagement with external organisations to develop graduates fit for practice.

Both CIT/ITT have a track record in supporting start-ups and entrepreneurs. Engagement with Government agencies, such as the Industry Development Agency (IDA) and Enterprise Ireland (EI) is strong. In Kerry, ITT shares the campus with the Kerry Technology Park which enables it to support business from incubation to full international economic performance with the concomitant impact on the regional economy. Similarly, at Cork the IDA and EI share the campus with CIT providing a conduit between the professional expertise of the staff and external stakeholders. Thus, they have a long history of partnership in leveraging funding to support new business development and international growth.

In the past four years, over 105 start-up companies have been housed in the Tom Crean Business Centre (ITT) and Rubicon Centre (CIT) incubation centres at any given time. An estimated €110m was raised by private funding between both centres in the last 10 years. The quality of the support given to the incubating companies is evident from the demand from those who wish to secure a place on programmes run by the incubation centres, the numbers applying for office space in the centres and the many awards won by companies based in the incubators (SED 18).

MTU will continue to build on CIT/ITT policies on work-based learning, the credit-based flexible curriculum and teaching and learning processes to support the strategic goal of meeting the skill needs of the region. Through MTU's academic staff and informed by the learners' needs, MTU will develop tailor-made programmes of study providing agile and context sensitive responses to current and emerging workplace needs.

MTU will work with strategic stakeholders in the region to respond to the regional policy challenges and priorities through its programmes of study, research and engagement strategies. MTU will build upon CIT/ITT provision of research centres and their smart specialisation focus to provide solutions to South-West Ireland regional issues. Additionally, MTU will provide opportunities for staff and students to generate knowledge transfer activities building upon the existing strengths of CIT/

²⁵ <https://www.education.ie/en/The-Education-System/Higher-Education/Higher-Education-Optimising-Resources-in-Irish-Higher-Education-Discussion-Paper-2-.pdf>



Thematic R&I Area	ISCED	R&I Centre	R&I Group	Technology Gateway
ICT	06	Nimbus (Internet of Things)	Sigma (High performance computing) Riomh (Distributed computing)	TEC (Internet of Things) IMaR (Mechantronics and RFID)
Photonics	05	CAPPA (Photonics)	Blackrock Castle Observatory Labs (Astrophysics)	CAPPA (Photonics)
Lifesciences/Food	05	BioExplore (Bioactive)		Shannon ABC
Maritime, Energy and Sustainable Environment (MESE)	07		MeSSO (Optimisation of system performance) SIRIG (Sustainable structures) Clean technology Centre (Resource efficiency) Halpin Maritime research (Maritime Operations and Maritime Mechantronics)	
Health and Well-being	09	UNESCO chair	Spraoi (Early Childhood Activity)	
Entrepreneurship, Competitiveness and Innovation	04		Hincks (Entrepreneurship) CEED (Entrepreneurship) V-Linc (Clustering) IAHT (Hospitality/Tourism)	
Education and Learning	01		Educational Technology Enterprise Engagement and Experiential Learning	
Creativity and Performing Arts	02		Individual and group activity	

Table 11: CIT/ITT combined research structure

MTU's Research Strategy

MTU's research strategy will be based on critical mass, competitive advantage, connectivity and clusters, and collaborative leadership. Key strategic objectives for MTU research will include:

1. Enhancing the connection between research and other elements of the technological university's mission, notably teaching and learning, whilst being cognisant of the need to ensure that research remains sustainably funded;
2. Protecting and enhancing the quality of research and innovation outputs and building a reputation nationally and internationally for impact in prioritised research and innovation areas;
3. Advocating for support structures, including a more robust funding model for research and innovation, which are linked to appropriate organisational structures;
4. Meeting targets that have been set down in the Technological University Act 2018 in a sustainable way;

5. Expanding large scale research activity into areas which currently do not have delegated authority, including areas in the humanities, arts and business;
6. Attracting, retaining and growing a diverse cohort of students, faculty and staff regionally, nationally and internationally.

MTU's Research Principles

MTU will perform research and innovation that will span the continuum from fundamental research to that of the practical and commercial needs of enterprise in the region and beyond. The technological university will maintain an emphasis on solutions-driven research and innovation that will have impact and generate benefits. MTU's emphasis on impact for its research will be relevant nationally and internationally.

The principles that will underpin research in MTU are:

- > **Researchers:** MTU will adopt the current practices embedded in CIT/ITT Research Career Framework (RCF). This will support the career development of all academic staff and contract

MTU will employ a structured PhD programme aligned with the 'National Framework for Doctoral Education'³⁷. This will provide broader professional development and skills training in parallel with advanced discipline-specific training. MTU will encourage mobility of staff and post-graduate students, aimed at exposing them to different research environments where they will acquire complementary expertise. Mobility not only enhances student job prospects, be it in the academic or industrial sectors, but also widens horizons and supports the growth of researchers into better global citizens.

Research Structure

CIT/ITT have acted on opportunities to build their research capacity by establishing several thematic research areas (TRAs) over the past 15 years. TRAs are differentiated from each other by the primary research disciplines in which they operate. Each TRA may contain larger-scale entities referred to as 'Centres', which are of long-term strategic importance, and smaller-scale entities referred to as 'Groups' which have a narrower research discipline focus. This structure will be carried forward in MTU research structures. MTU will host four of the 15 national Technology Gateways (TEC, IMaR, Shannon ABC and CAPP). The National Technology Gateway Network is run by Enterprise Ireland in partnership with the Technological Higher Education Association (THEA) to deliver expertise and solutions to industry in Ireland. Through the Technology Gateway Network, all Irish companies irrespective of their size, have access to research expertise, specialist equipment and facilities and research funding supports across THEA. CIT/ITT research centres/groups are linked to the relevant academic units, thus ensuring research informed academic programme development and delivery.

MTU will build on CIT/ITT current affiliated membership of Science Foundation Ireland (SFI), (SED 22). SFI is of increasing importance to MTU researchers as a source of funding that supports a broader range of metrics than other funding agencies, including scholarly outputs (knowledge generation), PhD students (early-stage researchers), contract researchers (from post-doc to senior fellow) and international networking initiatives (for example, the US-Ireland fund), along with supports for engagement with industry. Prioritising SFI as a key source of research funding also supports MTU's alignment with Innovation 2020 summarised as Excellence, Talent, Impact.

Research Performance and Impact

MTU will use a range of quantitative and qualitative metrics to enable it to oversee the quality and input of its research performance. The metrics will include: funding, scale and quality of journal publications, student enrolment, completion and time scale at master's and PhD levels, knowledge transfer outputs and independent published data.

In addition, MTU will make use of the external independent published data (Best Young University, Multirank global league tables) to allow benchmarking against other peer universities. In the research careers framework and structured PhD programme, personnel performance measures will be adopted in line with MTU's people-centered principle.

In 2017, CIT/ITT combined, secured 16% of their total research expenditure from industry, significantly exceeding the percentage industry expenditure of every other university, technological university consortia and IoT in Ireland³⁸.

CIT/ITT combined are the second highest performing higher education institutions in Ireland on total number of collaborations, innovation vouchers and consultancy service agreements with industry³⁹. CIT/ITT's combined direct financial drawdown from Horizon 2020 in August 2017 was €5.91m from the total Horizon 2020 consortium value of projects at €66.7m. This will position MTU as a higher education institution in the THEA sector with significant success participating in Horizon 2020⁴⁰.

The future success of research in the newly designated MTU will build on the work of both past and present staff and students at CIT/ITT. Future MTU success through the MTU Research Working Group will be built on the operation of a dynamic organisational structure that will be capable of responding to changes in both the internal and external landscapes.

³⁷ http://hea.ie/assets/uploads/2017/04/national_framework_for_doctoral_education_0.pdf

³⁸ <https://www.knowledgetransferireland.com/Reports-Publications/KTI-Annual-Review-and-Annual-Knowledge-Transfer-Survey-2015.pdf>

³⁹ Data extracted from Knowledge Transfer Ireland, 2017, Review and Annual Knowledge Transfer Survey p51 Appendix 1 Sections A.1 and A.2

⁴⁰ Data released by the European Commission in the Sixth Interim Report of the Irish Involvement in Horizon 2020 the European Union Framework Programme for Research and Innovation in August 2017



CHAPTER 9 | SERVE THE COMMUNITY AND PUBLIC INTEREST

Chapter Overview

This chapter aims to define MTU's contribution to the community and public interest by and through its people and activities. MTU will be in the region, of the region and for the region.

“The higher education sector plays a critical role in supporting the society in which we live, work and play. The contribution from such organisations and their staff in shaping and directing our society is profound and influential. The proposed focus by MTU on supporting and influencing societal change is welcomed. The benefits of this focus will also influence the development of MTU students and their societal and civic awareness.”

Mr Micheál Ó Muirheartaigh, Broadcaster

Introduction

The expansion of higher education in Ireland is widely regarded as one of the key factors that enabled the Irish economy to grow strongly in the decades since the 1950s. It has made a hugely positive contribution to Ireland's development into a modern economy and society. It is important to recognise that through much of that period it was the enhanced and expanded undergraduate education that underpinned this development.

The expansion of higher education has enhanced social mobility through providing equality of opportunity. It provides graduates with skills for life and leads to better social and well-being outcomes and increased civic engagement. Higher education is widely viewed as having a critical role in enriching Ireland's cultural life, nurturing an understanding of the national identity and that of other cultures and belief systems. Increasingly, higher education is viewed as a key tool in combating social exclusion and marginalisation.

One of the functions highlighted in the Technological Universities Act 2018 is to serve the community and public interest. CIT/ITT have a track record in developing and promoting strong social links in the region and have fostered close relationships with many organisations representing the social, creative and cultural interests of the local communities. MTU is committed to strengthening these links. MTU will both promote and support civic engagement through fostering opportunities for collaboration, knowledge exchange and social empowerment.

Definition of Community and Public Interest

MTU defines its community and public interest role as a symbiotic relationship based on a respectful partnership involving; inclusion, accessibility and responsibility.

This will be achieved by developing and expanding community-based learning in the technological university's curriculum, continuing to encourage volunteering and support social entrepreneurship through Enactus and other initiatives.

While MTU will bring significant economic benefits to the region, the impact on society and culture cannot be underestimated as a regional multi-campus technological university. The advantage that a technological university brings to the region is the ability to address – through research and outreach – issues that have long-term implications and which require institutional capacity. The role of MTU in the region's society will bring about changes that will last for generations to come.

Inclusion

Higher education is increasingly viewed as a key tool in combating social exclusion and marginalisation. Although significant progress has been made to address this, greater participation of learners from disadvantaged backgrounds is needed⁴¹.

It is recognised that addressing current inequities in access is challenging and resource-intensive. MTU will be ready to face this challenge through its commitment to the South-West region through its access, and admissions policy. Thus, MTU will promote access to learning opportunities for economically or socially disadvantaged persons, persons who have a disability and persons from sections of society which are significantly under-represented in the student body.



⁴¹ <http://hea.ie/assets/uploads/2017/06/National-Plan-for-Equity-of-Access-to-Higher-Education-2015-2019.pdf>

UNESCO chair for ‘Transforming the Lives of People with Disabilities through Physical Education, Sport, Fitness and Recreation’

The United Nations Educational, Scientific and Cultural Organisation (UNESCO), in recognition of expertise and ongoing commitment, signed an agreement with ITT to establish a chair “Transforming the lives of people with disabilities, their families, and community through Physical Education, Sport, Recreation and Fitness”. The chair reinforces and internationalises institutional commitment to the fields of inclusive practice and universal access. The chair builds bridges between academia and civic society, policy makers and legislators. The chair leads a global partnership working in the domains of quality inclusive physical education, sport, recreation and fitness as part of a broader intersectional human rights agenda focused on the social inclusion of marginalised groups.

The chair works both vertically and horizontally exploring the critical inclusion issues for people with disabilities and looking broadly at how society can better serve all its citizens. The chair is working towards a society that recognises the rights of all, ‘inclusivises’ practice and ultimately mainstreams diversity. The chair is very proud to have as its chairholder Dr Timothy Shriver, chairman of Special Olympics International and nephew of the late US president John F. Kennedy. In 2018 ITT UNESCO’s team presented to 37 different country representatives at the United Nations Convention on the Rights of Persons with Disabilities. This is the first time any Irish organisation presented at this conference.

MTU will value inclusion and diversity, will embrace difference and seek to nurture a connected, safe and respectful community. It will be supportive of the cultural diversity of students and staff, ensuring a welcoming, safe and supportive environment thus enabling them to realise personal, academic and career success.

MTU will welcome students from a broad range of learning abilities to the full suite of academic programmes, recognising that individual students with learning difference have different needs. In keeping with MTU’s person-centred approach it will

consider each student as an individual with his or her own learning history and provide appropriate supports.

MTU will adopt the Gender and Diversity Statement⁴² for higher education institutions which was launched in August 2018 and which states that “the technological higher education sector will act positively to ensure equal opportunities for all persons, regardless of gender, ethnicity, or sexual orientation, to access higher education and advance their careers”.

Gender equality is a key issue for higher education nationally; as part of its strategic plan MTU will create an executive-level position with responsibility for equality, diversity and inclusion. MTU will be committed to progressing gender equality and to create a fair and equitable environment. CIT/ITT adopted the Athena SWAN principles in 2017 and are represented on the National Athena SWAN Implementation Committee (SED 23). CIT/ITT have formally commenced the Athena SWAN Bronze Application process, and this will be continued in MTU.

Accessibility

MTU aims to be open and accessible across all its campuses, through its programme provision, open days, public lectures, arts, cultural and sporting events, community events, festivals and visitor days. CIT and ITT Libraries are open to the public and hold several key collections of artefacts stored in the Special Collections category which are available to the public and community. CIT/ITT have close relationships with their local communities which are regularly invited to attend functions on campus. Local school and community groups frequently organise events and use the on-campus facilities. This will continue at MTU (SED 23).

Art, music and sport are three areas in which MTU can and will interact with the public in especially meaningful ways. Through its Cork School of Music (CSM) MTU will continue to host publicly-accessible concerts, recitals and other events. It will continue the Artists-in-Residence programme whereby distinguished professional artists are recognised for their association with CSM. These range from individual performers to chamber ensembles, both instrumental and vocal, who perform regularly at CSM, sharing their expertise and artistry with the public. Staff, students and alumni will continue to be to the fore in all kinds of music and choral festivals across the region (SED 13, 23).

⁴² <http://www.thea.ie/press-releases/publication-of-gender--diversity-statement/>

The Crawford College of Art and Design (CCAD) has many links with visual arts organisations and networks, which contribute to the development of programmes and activities which are aligned with industry and the community. Together with partners such as the National Sculpture Factory and the Crawford Gallery, each year CCAD organises workshops, talks, conferences and exhibitions by practitioners, specialists and graduates. These activities contribute enormously to CCAD's practice and engagement ethos and will continue as part of MTU's strategy of community engagement. CCAD's 'The Gallery' located at 46 Grand Parade in the heart of Cork City centre, is a creative and welcoming space which inspires recognition of creative expression within all creative disciplines and encourages learning within the community. Academic programmes including Special Purpose Awards in Arts, Participation & Development and Arts in Group Facilitation are deeply involved with youth and community groups.

The completion of the Kerry Sports Academy in 2019 will see Comhaltas Ciarraí (the largest national group involved in the preservation and promotion of traditional Irish music) take up residency in a dedicated performance space within the academy building. This will provide for regular on campus concerts, performances and rehearsals, deliver increased community access and provide a dedicated cultural resource. Outside of CIT/ITT clubs and societies, many students are involved with local clubs and organisations in the community across a diverse range of cultural interests. CIT/ITT Students' Unions organise a wide range of entertainment events both on and off campus.

MTU's Arts Office will also continue to commit to its mission of bringing arts and cultural activities to all students and local communities, across all campuses and through a wide range of art forms.

MTU staff, students, alumni and local communities will have the opportunity of engaging in a wide range of sports and health-related activities across the various campuses. The Kerry Sports Academy will provide a particularly inclusive focus on enabling persons with a disability to participate in sporting activities (SED 23). CIT's outdoor sports facilities become home each June to the largest sporting event for children in Europe through the Cork School Sports. CIT/ITT host local school sports days each spring, and these events bring children, teachers and families onto the campuses. CIT also hosts the Cork City International Sports which brings elite athletes from all over the world on campus (SED 19).

A collaborative and inclusive approach to shared facilities will be adopted by MTU, partnering with local government organisations and athletics governing bodies to continue to provide and develop international standard track and field facilities, enabling MTU to host international sporting events.

Responsibility

MTU will change the landscape of the South-West region with a planned capital investment of €137m over the next 10 years, providing a long-term commitment to the South-West. Such capital projects are not only about expansion, but centred on opening the campus up as physical and social space for the wider community.

As an outward facing technological university, along with enhancing the region's economy, MTU staff and students will contribute to the vitality of their communities and help develop a tolerant and inclusive society. MTU will enhance employment opportunities by providing graduates with skills for life which will lead to better social and well-being outcomes and increased civic engagement.

Encouraging students of MTU to reach out beyond the campus boundaries, through a number of civic engagement initiatives, will help to make a real difference to the region. Initiatives and giving back through volunteer groups, charitable and non-profit organisations, to help those in need will improve the quality of life for people in the South-West region. CIT/ITT are already involved in many partnerships and initiatives such as the Older Persons Alliance with Cork County Council⁴³, which support the voice of the older person (SED 23). CIT/ITT were signatories on the Campus Engage initiative⁴⁴, which aims to nurture a spirit of community engagement among staff and students of Ireland's higher education institutions. One example of this is CIT's recent and ongoing engagement with Cork Prison Services, with a number of CIT staff volunteering to deliver taster programmes to inmates of Cork Prison, with supports also provided to prisoners' families. These approaches will continue at MTU.

CIT/ITT are part of the national student volunteer programme⁴⁵ which connects students with civil society organisations providing volunteering opportunities, locally, nationally and internationally. Volunteering enables students to have the opportunity to enrich their personal development and employability skills, have a fun experience, meet new people, and give back to their community.

⁴³ Authority responsible for local government in County Cork

⁴⁴ <http://www.campusengage.ie>

⁴⁵ <https://www.studentvolunteer.ie/>

MTU will continue the current support opportunities available for local and overseas volunteering, in some cases offering financial support to students who wish to volunteer overseas e.g. EIL Explore, SERVE and The Hope Foundation⁴⁶ (SED 23).

MTU staff, through Staff Social Committees, have engaged and will continue to engage in charitable activities, organising social functions to raise funds for local charities. Individually, staff engage in numerous other charitable activities which are often supported by colleagues. MTU will also support the Students' Union in its endeavours to raise funds for local charities.

MTU will recognise its public interest responsibility towards the environment. CIT/ITT have a green campus enterprise and sustainability strategy upon which MTU will build upon. CIT/ITT have a co-ordinated energy management programme and have energy teams working with all stakeholders to reduce energy consumption. ISO 50001 certification⁴⁷ is in place, this is a response to statutory requirements for the public sector in meeting energy reduction targets⁴⁸. MTU will champion this programme of sustainability.

Reducing the use of material, water and energy resources has resulted in environmental and economic benefits and an improved working environment. CIT/ITT have a number of internal energy projects which have been realised with the partnership of a variety of internal departments and external research partners collaborating with a shared goal of reducing energy consumption on all campuses and sharing findings internationally.

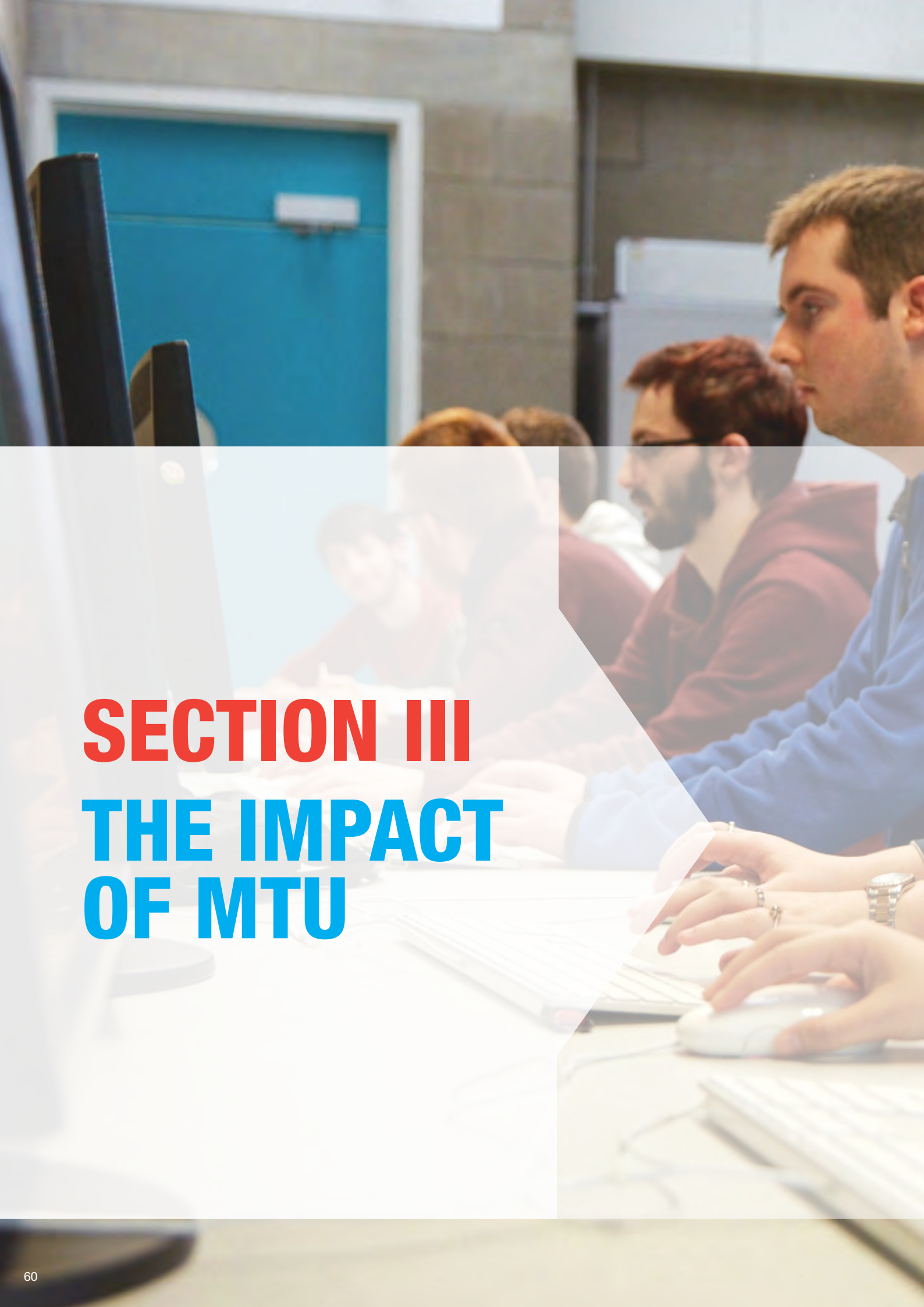
The role of MTU in the region and serving the community and public interest has been thematic throughout this document and this will be an important and continuing feature of MTU's function. MTU will continue to:

- > Improve and change lives by providing inclusive access to educational opportunities;
- > Offer vital services to surrounding communities including access to cultural amenities and sports facilities;
- > Ensure a person-centred approach in all its activities and endeavor to create a culture that is inclusive, diverse, forward-focused and passionate for change for all stakeholders;
- > Commit to collaboration with regional and local organisations, SMEs, social enterprises, schools, alumni and entrepreneurs;
- > Ensure that all students will have an international experience by integrating the 70-plus nationalities at MTU through international cultural, social events and societies;
- > Provide in the areas of specialist music and drama training, and craft apprenticeships recognising the importance of this provision to the region and beyond;
- > Develop and provide a wide range of sustainable and successful online distance education offerings aligned to workplace and student needs offering great flexibility to students so that they can access their lectures and labs any time, anywhere, on any device, irrespective of their physical location or working status;
- > Support and engage a growing graduate community and support the transformative student experience building relationships between students, alumni and employer communities;
- > Provide opportunities for under-represented groups through national programmes such as HEAR, DARE and Springboard;
- > Encourage student involvement in social, cultural and sporting activities on campus and within local communities;
- > Provide opportunities for the arts and cultural scene which will give opportunities for music, drama and other cultural activities on campus and within the community;
- > Develop a strategy to facilitate student movement between campuses for social, cultural and competitive sporting purposes;
- > Build upon existing entrepreneurial, innovative and creative culture and community at CIT/ITT;
- > Engage with the wider community (business, social or cultural) from the outset and align with sector needs;
- > Work with its regional stakeholders to identify the needs of the region and beyond supporting its development and growth through engagement with relevant international academic, industry, community, research and policy making partners;
- > Support staff to engage in research and consultancy with industry, to advance their innovation and entrepreneurial activities, and to generate spin-out companies.

⁴⁶ EIL Explore funds overseas intercultural learning adventures which challenge participants to become global citizens. SERVE is a development and volunteering organisation committed to tackling poverty in the majority world. The Hope Foundation is dedicated to promoting the protection of street and slum children in Kolkata and the most underprivileged in India.

⁴⁷ Energy Management Systems Standard

⁴⁸ EU Energy Efficiency Directive

A photograph of a computer lab with several students sitting at desks, focused on their work. The students are wearing blue and maroon hoodies. In the background, there is a blue door and a brick wall. The foreground shows a computer monitor and keyboard. A semi-transparent white geometric shape is overlaid on the image, containing the text.

SECTION III

THE IMPACT

OF MTU



CHAPTER 10 | THE FINANCIAL AND ECONOMIC IMPACT OF MTU

Chapter Overview

This chapter will outline the economic context of the South-West region and present the expected economic impact of MTU for the region. In doing so this chapter will outline the financial case for MTU by presenting the integration costs and financial benefits of MTU. The Governing Bodies of both institutes have discussed and approved the financial case which is based upon two key studies undertaken by PwC and Dr Matthew Fannin for CIT/ITT over the period 2016-2018. What follows in this chapter is a distillation of material contained in these reports which are available in full on request.

“While both CIT and ITT individually make a significant impact on the regions they serve, the future combined economic output of the new technological university will deliver far greater benefits than the individual institutes could ever hope to achieve on their own. The ultimate benefactor of MTU is the region it will serve. The case as presented for MTU demonstrates real and tangible economic benefits where the combined efforts of both organisations within a new structure will provide excellent synergistic opportunities.”

Mr Pat O’Leary, Managing Director, Liebherr Ireland

Introduction

Ireland is unique in Europe: it has a large, growing and highly educated population of young people. Demand for education expanded during the recent economic crisis and is set to grow further over the coming decade. According to HEA figures there are now 225,628⁴⁹ students in Irish universities and institutes of technology (IoTs) with 25,265 from the Cork and Kerry region. This is set to grow by a third in the next decade as the number of secondary school students continues to increase.

According to the Expert Group on Future Funding of Higher Education (2015)⁵⁰: **“There can be little doubt that investment in higher education has been key to enabling the Irish economy to grow in recent decades. We know that graduates’ knowledge and capabilities enhance economic productivity. Universities and IoTs are key centres of research and knowledge generation and engines of regional and local economic development. In overall terms the State—through higher tax contributions and lower calls on welfare—benefits significantly from its investment.”**

MTU will contribute to the economic prosperity of the region building upon the foundations of CIT and ITT. The programme provision, research capacity and quality of the student learning environment as well as the unique characteristics of MTU, as also outlined in Chapter 3, will provide an attractive destination for students both domestically and internationally, leading to increased prosperity across the region.

The Financial Case for MTU

CIT/ITT have been working together to ensure that the financial resourcing and viability of the MTU project is robust (in line with the requirements of Sections 30 (b) and 34 (2)(c) and (d) in particular of the TU 2018 Act).

As responsible institutes CIT/ITT Governing Body members have had a risk assessment of the business case undertaken including student number projections, capital requirements and financial performance and have put in place contingency plans to mitigate these risks.

The annual financial projections for CIT and ITT submitted to the HEA in May 2018 (the ‘2018 Programmes and Budgets projections’) have formed the key input to the financial case analysis. The detailed financial case projections for MTU have been developed by CIT and ITT with input from the vice-presidents for finance and administration and corporate affairs at CIT and ITT, the presidents of CIT and ITT, the MTU project directors, and the MTU Programme Oversight Board, with additional input from other finance and academic staff. These financial projections were approved by the CIT Governing Body and ITT Governing Body prior to submission to the HEA.

Student numbers are the key driver of the various income categories. The projections in the first academic cycle have been developed in conjunction with senior academic staff based on a detailed analysis of projected student numbers by course and by year of study and reflect the relevant demographic trends. Pay costs, which account for the majority of expenditure, are projected based on a detailed analysis of staff numbers. Non-pay costs are projected based on an analysis of the relevant cost categories.

The financial case for the proposed merger of CIT and ITT to create MTU considers the projected financial benefits and costs of the merger and technological university designation. The financial case for MTU considers the projected financial costs and benefits of the merger over a period of two academic cycles (eight years) from the date of merger on 1 September 2019 (i.e. from AY19/20 to AY26/27).

⁴⁹ HEA – Key Facts and Figures: Higher Education 2016/17

⁵⁰ <https://education.ie/en/The-Education-System/High-Education/>

Financial Benefits of MTU

The four principal financial benefits of the creation of MTU are:

1. Additional growth in student numbers

This will be over and above the growth which both institutes could expect on a standalone basis – student numbers will lead to increased income from the State as well as increased student fees and student contribution. Costs of such an increase in student numbers has been considered in the financial case.

2. Increased research income

Research income is assumed to be 5% higher in the merger scenario, reflecting a higher level of research and innovation activity and an associated enhanced level of interaction with industry in the research area following designation as a technological university.

3. Efficiencies/synergies

It is assumed that student number growth in CIT in the first academic cycle post 1 September 2019 will be delivered within the institute's current staff complement, with some additional pay costs in ITT to deliver the projected 20% student growth. This is reflected in total pay cost metrics for MTU (reducing from 78.7% pre-merger to 77.4% by the end of the first academic cycle). Efficiencies that may be realised due to the creation of MTU may also take the form of a reinvestment of resources into new developing areas such as increased internationalisation and potential student growth areas.

4. Access to a borrowing framework

Subject to rules in the Technological Universities Act 2018, MTU would be permitted to draw down loan funding to finance capital investment (e.g. investment in infrastructure to accommodate increasing student numbers). Any such borrowings would be one element of a broader funding package. MTU's capacity to borrow will be governed by its financial capacity to service the repayment of debt from operating surpluses and by the commercial terms under which it could borrow (i.e. interest rates, tenure of loans, etc). Given projected capital expenditure for MTU of over €200m over the two academic cycles, this highlights the requirement for a borrowing framework for MTU, in addition to State grants.

Key Assumptions

The key assumptions underpinning the development of the financial case for the creation of MTU are:

Student numbers

Based on the 2018 Programmes and Budgets projections, total student numbers in AY18/19 (the last academic year before the assumed merger date) are projected as follows:

- > CIT: 10,516 students, of which 8,107 (77%) are full-time students (excluding non-EU students).
- > ITT: 2,864 students, of which 1,947 (68%) are full-time students (excluding non-EU students).

Combined CIT and ITT student numbers in the merger scenario are estimated to grow by c. 7% in the first academic cycle (AY19/20 to AY22/23) and by c. 8% in the second academic cycle (AY23/24 to AY26/27).

Demographic growth of c. 12% is expected in the first academic cycle and c. 22% in the second academic cycle (37% in total over the two academic cycles.) These figures are based on published census data of total births recorded in the Cork and Kerry region⁵¹.

Additional growth in student numbers in the merger case is based on a 5% uplift over the first academic cycle, driven by designation as a technological university. It is assumed that this 5% uplift is achieved over the first academic cycle, in the four years post-merger. Total growth of c. 21% over the two academic cycles (including the 5% uplift assumed in the merger scenario) appears prudent when compared to the demographic growth of 37% within the Cork and Kerry region over the same period.

Figure 5 illustrates the growth in student numbers between the academic year immediately preceding the first year of the MTU merger (AY18/19) and the final year of the second academic cycle post-merger (AY26/27).

⁵¹ Census 2016 Profile 2 and Regional Population Projections 2016-2031 (Central Statistics Office)

Expenditure

Staff pay costs account for the majority of expenditure in both institutes. Based on the 2018 Programmes and Budgets projections, pay and non-pay expenditure in the year immediately preceding the proposed merger (AY18/19) is projected as follows:

Institute	Pay Expenditure	Non-Pay Expenditure
CIT	c. €77.6m	c. €26.7m
ITT	c. €23.9m	c. €6.9m

Table 14: Pay and non-pay expenditure in AY18/19

Increase in pay costs in the first academic cycle post-merger are primarily as a result of pay restoration and additional posts, as a result of changes to national agreements, as well as some pay cost increases associated with student number growth.

It is assumed in the financial projections that the impact of national agreements such as the restoration of pay and the re-designation of hours will be fully funded by way of an increase in the State grant.

Pay costs in the second academic cycle are generally assumed to increase in line with increasing student numbers.

Integration costs

It is estimated that the organisational integration costs associated with the establishment of MTU will be c. €12m over an eight-year period (i.e. over the two academic cycles). We are confident that these costs will be specifically funded by the State in addition to the normal State grants⁵². These integration costs are projected to be c. €3.5m in AY19/20 reducing to c. €0.5m per annum from AY24/25 to AY26/27.

Organisational integration costs AY19/20 to AY26/27

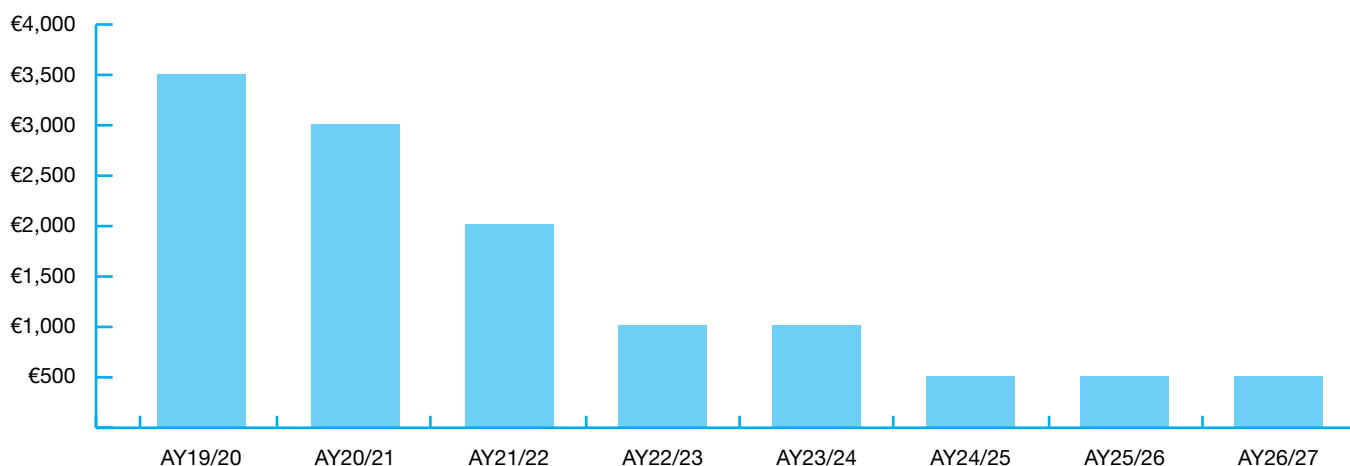


Figure 7: Organisational integration costs AY19/20 to AY26/27

Based on data published on third-level mergers in Scotland⁵³, it is envisaged that the merger cost categories for MTU would be:

- > Staff costs/project management;
- > IT hardware/software;
- > Marketing/branding/stakeholder relations;
- > Professional advisers and legal costs;
- > Organisational development and change management.

⁵² At the time of writing joint meetings with DES/HEA and CIT/ITT are in place to discuss capital and financial resourcing

⁵³ Impact and success of the programme of college mergers in Scotland (Scottish Funding Council 2017)

€m	HEA	MTU	Total
Multi-Campus University Governance & Administration	€1.2m	€0.4m	€1.6m
Defining the MTU Graduate	€1.3m	€2.4m	€3.7m
Developing the University Staff	€5.5m	€2.0m	€7.5m
Digital by Default (4 year)	€1.6m	€1.5m	€3.1m
An International TU	€1.1m	€1.5m	€2.6m
Equality, Diversity and Inclusion	€1.1m	€1.6m	€2.7m
Nurturing the Research Ecosystem	€1.4m	€0.6m	€2.0m
Total	€13.3m	€9.9m	€23.2m

Table 16: Estimated cost of MTU development projects

Institute	Development	m ²	Cost
Cork	Learning Resource Centre (PPP)	6,800	€21m
	Sports Arena	3,300	€10m
Kerry	STEM (PPP)	9,000	€30m
	Sports Academy	8,400	€19m
	Total	27,500	€80m

Table 17: Projects in development

MTU Physical Environment Strategy

A multi-campus, geographically distributed delivery platform is a fundamental cornerstone of the MTU. The Cork and Kerry campuses are different, not alone in terms of student numbers and size, but also in terms of the social spaces and facilities that exist for students. Both the Cork and Kerry campuses have unique attributes and it is important that these are treasured and built upon in the new entity. One of the key objectives of the new entity is to ensure a 'Single Stakeholder Brand Experience' for the MTU. It is recognised that there are several pressing strategic campus developments in Cork and Kerry which will have to be progressed in parallel.

The key strategic focus for the Kerry campus will be to consolidate all its activity on the Dromtacker North Campus, including the completion of the Sports Academy and STEM (PPP) buildings which are in progress. A further development is planned to provide a student hub. The Kerry campus masterplan also includes the development of a Research Building and an extension to the existing Tom Crean Business Centre.

The challenge of physical infrastructure in Cork to accommodate growth in student numbers is greater and a key objective will be the upgrading of the current 1974 building (31,000m²) within the Bishopstown campus. Significant capital additions will be required on this campus, including the completion of the Sports Arena and the Learning Resource Centre (PPP), which are both currently in progress. Further new buildings are required to support the anticipated demographic-led growth in student numbers over the next decade. Planned developments include the Engineering Learning Factory (TELF), the Centre for Science Education (CASE), two business/humanities facilities (the Track Boulevard and Gateway Building). An investment is also required to provide for the Centre for Excellence in Apprenticeship (CEA), a project already brought to design and planning phase before the downturn in apprenticeship registrations post 2008. One further key project is the development of the Art, Design and Media (ADAM) project to consolidate the activities of the Crawford College of Art & Design into a purpose-built, city centre location.

Sensitivity Analysis (€000's)	AY19/20	AY20/21	AY21/22	AY22/23	AY23/24	AY24/25	AY25/26	AY26/27
CIT income less expenditure	2,009	1,900	2,603	2,671	2,742	2,814	2,889	2,966
ITT income less expenditure	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
MTU overlay	1,703	1,847	2,033	2,208	737	762	788	812
Revised MTU income less expenditure	2,212	2,247	3,136	3,379	1,979	2,151	2,177	2,278
Annual Impact v MTU Base Case Projections	(54)	(106)	(247)	(288)	(505)	(575)	(799)	(898)

Table 19: Impact of ITT Deficit continues at €1.5m per annum

Sensitivity Analysis (€000's)	AY19/20	AY20/21	AY21/22	AY22/23	AY23/24	AY24/25	AY25/26	AY26/27
CIT income less expenditure	2,009	1,900	2,603	2,671	2,742	2,814	2,889	2,966
ITT income less expenditure	(1,446)	(1,394)	(1,253)	(1,213)	(995)	(850)	(702)	(603)
ITT income less expenditure	(1,446)	(1,394)	(1,253)	(1,213)	(995)	(850)	(702)	(603)
MTU overlay	1,633	1,705	1,797	1,884	399	413	427	439
Revised MTU income less expenditure	2,196	2,211	3,147	3,342	2,146	2,377	2,614	2,802
Impact v MTU Base Case Projections	(70)	(142)	(236)	(325)	(338)	(349)	(362)	(373)

Table 20: Impact if MTU student number uplift is 2.5% rather than 5.0%

Economic Contributions and Impact of MTU

The MTU Economic Impact Study (EIS) follows on from a similar study commissioned in 2014 as part of the Stage 2 submission (the then process for technological university designation). The latest study reveals an improved outlook for the planned MTU. The 2018 study demonstrated that MTU will deliver and create a substantial, positive economic impact to the region, over a 10-year period, characterised by:

- > A net economic impact to the region of between €156m and €224m;
- > A platform for increased research investment which will create a regional GDP increment of between €26m and €52m in the South-West region;
- > Increased educational attainment which will increase regional productivity;
- > A flexible approach for graduates to engage in the workforce, including through entrepreneurial activities and traditional employment structures;
- > Increased geographical access to flexible learning opportunities, which will drive knowledge and skill growth;

- > Significant access opportunities that will realise sustainable regional household income;
- > A more attractive place in which to live, study, work and do business.

Both CIT and ITT are shown to make sizeable contributions to the overall economies of the Cork-Kerry region. These include a number of existing contributions as well as potential new economic impacts that will accrue to the two-county region when the merger and conversion to MTU is achieved.

Measuring the Economic Contribution of MTU

The economic contribution focuses on expenditure demands created from the existing capacity of the two institutes to merge. It focuses on the economic activity generated in the region from the existing expenditures affiliated with CIT and ITT. All contributions are based on analysis using the 2016-17 academic year. These contributions include:

- > From operational activity spending of the IoTs;
- > From the spending of enrolled students at the IoTs;



CONCLUDING REMARKS

The Technological Universities Act 2018 has created the opportunity to add a new and exciting dimension to the Higher Education landscape in Ireland. This sectoral change will result in a more dynamic and systematic engagement with business, enterprise and the wider community, creating significant regional, national and international impact.

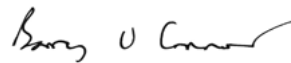
The creation of the Munster Technological University presents a unique opportunity to combine two established higher education institutions to realise a new technological university. The MTU will build upon the legacy of CIT and ITT, further fostering collaborations and innovations which will come into being through the deep integration of the founding Institutes. The resultant MTU will present a larger entity, with greater resilience and resources, well positioned to deliver a sustainable operational model for the future.

We look forward to continuing to work together with confidence and ambition, with a clear focus on placing our stakeholders core and central to the delivery of our vision for the MTU. Our success will be measured by the quality of the teaching and learning experience, the work readiness of our graduates, success of our alumni and our impact in the areas of research, enterprise and innovation.

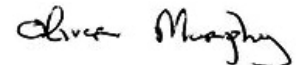
We recognise and appreciate our staff and their commitment to the creation of the MTU. It is through the professionalism, commitment and ambition of our colleagues across ITT and CIT that both founding partners of the MTU are successful entities in their own right. Through synergistic collaborations it is our staff who will drive the success of the new MTU along with our student body, past and current.

This submission represents a significant milestone in a lengthy process further enhancing interactions and collaborations across our students, staff and respective Governing Bodies. Together we have crystallized our shared vision of the MTU, within the expansive criteria of the TU Act 2018, to delineate a trajectory which will ensure a national and international profile and presence for the new institution.

As we make this submission, we also recognise that this is the beginning of a new phase of the MTU journey. This journey will require strong governance and leadership, delivered in a spirit of teamwork and common purpose, which in turn will establish a unique and respected ethos that will identify and shape the MTU. We will collectively strive to ensure that MTU will deliver on its ambitious mission and in so doing will enhance opportunities for the students, staff and communities whom we serve.



Dr Barry O'Connor
President CIT



Dr Oliver Murphy
President ITT



