Report of the International Advisory Panel to An tUdaras

On the MTU Application for designation as a Technological University

Panel Assessment and Recommendation on MTU

Background

The National Strategy for Higher Education to 2030 (January 2011), among other goals, proposed reform of Ireland's institute of technology sector to better meet national strategic objectives. Specifically, it recommended consolidation within the sector and a pathway for consortia of institutes of technology to evolve into technological universities upon demonstration that they have met or exceed threshold criteria to attain technological university status.

To this end, the Technological Universities Act, 2018 (the Act) came into effect in March 2018. The Act sets out the functions, governance, academic oversight and operational requirements of technological universities. It specifies eligibility criteria and application requirements for consortia seeking technological university designation. It describes the order and transitional mechanisms in the establishment of new technological universities and provides for an independent advisory panel to assess preparedness for a merger.

The MTU partnership – Cork Institute of Technology (CIT) and the Institute of Technology Tralee (ITT) – submitted an application in February 2019 to become Ireland's second technological university. This International Advisory Panel was convened in the third week of May 2019 by An tUdaras, the Higher Education Authority (HEA), to provide independent advice to the Minister for Education and Skills on the merits of the CIT/ITT application for technological university status.

Introduction: Panel Activities

The panel met in Cork and Tralee and conducted activities from 22-24 May and again 27-29 May 2019 to review the application of CIT and ITT to merge into one institution of higher education: Munster Technological University.

In addition to its review of the MTU application and supporting documentation, it met a very large number of people: Senior staff, Board Chairs and members, academic and administrative staff and their union representatives, student representatives, student societies and a number of additional students as well as approximately 45 external stakeholders from the community and industry. Site visits were conducted at both campuses, and an email address was made available by the HEA for any comments that institutional constituents might want to make via that conduit; 32 emails were received. In all, the meeting schedule provided for 31 different discussions and briefings.

The panel would like to have seen more detailed and specific information in the documentation supporting this application. While the site visit provided a good opportunity to fill documentation gaps, and despite the investment of many people in the week's intense schedule of meetings, the panel found that much time and energy had been spent on showcasing the activities of each institute at the expense of focusing on how the institutes can, do, and will "act as one."

General Findings

The visit allowed the panel to verify and amplify the information received, to pose questions of clarification regarding definitions and data provided, and to obtain a range of perspectives on the issues. It allowed the panel to observe that there are many similarities as well as many differences between the institutions. It made it possible to appreciate the quality of research in some research fields and the cooperation already underway in some research projects. It also made clear that, premerger, only a limited amount of work to become one institution has been accomplished, and that significant work (some of which is in the planning stages) remains to be done should designation as MTU be granted. While some of the limitations to this work of merger are understandable, and allowing for the fact that the final legislation on technological universities was not available until March 2018, the panel questioned whether the institutions should have been farther down the road on this journey than it found to be the case. Further details are discussed below with regard to specific eligibility criteria as found in the Act.

The panel would also suggest that there are two areas deserving of further definition and clarification in national policy related to the technological university and tertiary education in general. While this issue goes above and beyond the scope of this individual application, it did affect the panel's work and will, the panel believes, remain potentially problematic in further reviews. The two areas are the definition of research (and more precisely of research-active students and staff) as it is to be understood for government policy and the differentiation of master's degrees as taught or research degrees, based on the importance of the research component. Again, further details are discussed below with regard to specific eligibility criteria as found in the Technological Universities Act, 2018.

The panel experienced considerable enthusiasm from all quarters for the goal of becoming a technology university, even while hearing concerns about the process leading up to the submittal of the application. Everyone interviewed understood the importance of this project for gaining the recognition of the level and quality of graduates' degrees both at home and abroad, the desirability of having a technological university in the Southwest region to attract corporate investment and promote regional development, and the benefit of designated authority with regard to keeping and attracting talented students to engage in research. These benefits were realized even while recognizing the challenges of bringing a new university structure into full operational effect, including the challenge of ensuring communications across the institutions, the ramifications of differences between the two institutions should they come together as one, and how reported financial challenges at ITT might affect the merger. Importantly, however, even those who stated concerns about these challenges, agreed emphatically that the creation of Munster Technological University would be an important and useful change for students and the region.

Panel Assessment Process

In examining the documentation and in the course of the site visits, the panel assessed three factors: the consortium's performance metrics benchmarked against the eligibility criteria set out in Sections 28, 29 and 30 of the Technological Universities Act, 2018; the overall level of preparedness of the consortium institutions to transition to technological university status; and the comprehensiveness of the planning framework and work scope definition to launch the set of critical transitional activities.

Performance Metrics and Compliance with Eligibility Criteria of the Technological Universities Act 2018

Section 29 of the Act specifies that two or more institutions may jointly apply to the Minister for an order to be designated as a new technological university [S.29(1)]. The MTU partnership *prima facie* meets the conditions of S.29 (1) of the Act.

Section 28 of the Act sets out threshold levels for student profiles, research student growth potential, staff profiles, scope of research, academic breadth, quality compliance and innovation capacities commensurate with technological university status, and internationalisation.

The MTU partnership addressed the Section 28 (1, a-l) performance criteria in Chapter 4 of the consortium application. The panel was assisted greatly in its evaluation of the MTU data by an independent audit of the metrics undertaken by Deloitte on behalf of the HEA, dated 25 May 2019. The panel had the opportunity to discuss the methodology and the outcome of its study in a meeting with a Deloitte representative and was satisfied with the methodology adopted by Deloitte. That said, the panel notes that the Deloitte report explicitly mentioned a number of areas for the panel to explore further, viz.

- 1. The classification of modules in programme type 25W as bearing research credit and the related issue of whether students in these programmes should be considered research students (Se.28(1)(a)(i));
- 2. The inclusion of staff deemed to have terminal degrees to meet the criterion that 90% of FT academic staff engaged in offering bachelor's degrees hold a master's or doctoral degree (S.28 (1)(c));
- 3. Whether the determination of PhD supervisors as research-active should be made at the time of the student's application or at the time of the MTU application (S. 28(1)(e)); and
- 4. Whether the MTU approach of considering the research activity of the supervisory team rather than the activity of each supervisor was acceptable (S.28(1)(f)).

The panel makes the following observations with respect to specific data presented in the MTU application (cf. Chapter 4) and the Deloitte findings in its review of those data.

Student Profiles (Section 28 1(a)(b))

The Review Panel is satisfied with information provided on these criteria but notes the following on the questions posed by Deloitte.

Re 28 1(a)(i): The required percentage of students engaged in research at applicant institutions applying for technological university status is 4.0 per cent. Section 28 (2)(a) of the Act defines a research student as one registered "in a programme of education and training where not less than 60 per cent of the available credits are assigned in respect of a thesis or theses based on research conducted by him or her." Looking into the definition of research output as applied by QQI, one finds the statement that such output is "most often a thesis (here meaning a coherent body of detailed written work on a specific topic particular to the student) but may also be a written submission with a selection of papers, performance practice or research artefact and, in some cases, performance in a

viva voce (oral examination)." (QQI Research Degree Programmes Statutory Quality Assurance Guidelines (March 2017/QG6-V1)8.2 Elements of assessment)

According to the Deloitte report, there is a question as to whether the modules under five 25W [i.e., taught masters programmes] were appropriately classified as research credit eligible. (Deloitte report, p. 17). Without the five programmes in question, the percentage of research students across the two institutions (as reported by staff during the panel's visit) is 3.2 per cent.

The panel examined this issue with staff at various meetings but ultimately was not able to ascertain that at least 60 per cent of the coursework in the five 25W programmes in question is grounded in student-conducted research and that the students in these programmes should therefore be counted as research students. The panel also notes, based on discussion of this topic with CIT and ITT staff, that there is no distinction made in diplomas issued to graduates of the 25W (taught) vs. the 26 (research) master's programmes.

Re 28 1 (a)(iii): The Act includes the requirement that the institutions have a plan that demonstrates "to the satisfaction of the advisory panel," that they would have the capacity within ten years to increase the percentage of research students from 4.0 per cent to at least 7.0 per cent. No such plan has been presented, although a very general list of conditions and actions that could result in such an increase has been provided, together with the statement that a strategic plan must be in place within six months of designation and that that plan will include this information. The panel did, however, receive reasonable assurances in interviews as to how this increase could be expected to be achieved. Research at CIT covers a relatively wide range of disciplines and is recognised by external funders, including European funding schemes such as Horizon 2020. Research at ITT is recognised in a number of niches. The delegated authority that MTU would receive at designation would bolster attractiveness to potential students and is expected to increase the number of PhD students coming to or staying on for further study at MTU. Assurance were given, however, that the delegated authority that would be gained upon designation will not open the floodgates to create new PhD programmes. Applications for new PhD degree programmes will be careful considered, based on QQI guidelines. Recruitment of staff with PhDs and the further development of a research culture are current priorities.

Staff Profiles (Section 28 1(c)(d)(e)(f))

The Review Panel is satisfied with information provided on these criteria but notes the following on the questions posed by Deloitte.

Re 28 1(d): The Act includes the requirement that the institutions have a plan that demonstrates "to the satisfaction of the advisory panel," that they would have the capacity within ten years to increase the percentage of full-time academic staff with a doctoral or appropriate equivalent from at least 45 to at least 65 percent. No such plan has been presented, although a very general list of conditions and actions that could result in such an increase has been provided, together with the statement that a strategic plan must be in place within six months of designation and that that plan will include this information. Compliance with this criterion would be difficult to assess with certainty in any case given its future orientation, but the panel heard oral evidence indicating that the attainment of 65 per cent in ten years would be feasible based on anticipated structural changes following on designation as MTU. (See also the discussion above on the anticipated increase in PhD students).

Re 28 1(f)(ii): With regard to the criteria for staff as set out in the Act, the Deloitte review posed the question of whether the system of assigning supervision to PhD students met the criterion that each such supervisor be "research active" (language in the Act: "a record of continued conduct in an area relevant to the programme"). Deloitte based its review on the definition of "research active" presented in the MTU application which calculated research-active staff based on teams of supervisors assigned to individual PhD students rather than to each supervisory member of the two- or three-person team. The panel notes that there are no criteria for research activity in the Act itself, and notes further that there was no way for the panel to determine whether each member of a supervisory team is research active in a way that would be satisfactory in accordance with the Act given this lack of definition. The panel notes, however, that the approach taken by the institutions to assign a team of supervision rather than an individual research supervisor appears to be beneficial for the students supervised, as the issue of continuity of supervision that can be problematic for students when there is a single supervisor is mitigated by this approach. The panel notes further that it does not find the issue identified by Deloitte regarding when the supervisor's research status was ascertained (i.e., at the time of the student's PhD application or the time of the MTU application) to be of concern.

Research Activity (Section 28 1(g)(h)(i)(j))

The Review Panel finds a number of these criteria to be met and assumes compliance with one, as noted below.

Re 28 1(h)(i): The applicant institutions refer to compliance with quality assurance procedures as required by the QQI as evidence that innovation activity and research are conducted to a high standard. Each institution has submitted Annual Institutional Quality Reports to QQI, which are reviewed by that agency. In the Review Panel's conversation with QQI representatives, however, it learned that given the transition from HETAC to QQI in 2012 and the timing of institutional reviews, there has not been an institutional quality assurance review of ITT involving an external panel since 2009 or of CIT since 2010. QQI representatives noted that such a review of MTU would be required within 18 months of designation. The panel does note the many positive contributions to business, enterprise and the community that have been and are being made, e.g., through the CIT Nimbus and the ITT Tom Crean Centres as well as the incubator (Rubicon Centre), and the technology transfer partnerships built through the Bridge Network that includes CIT, ITT, University College Cork and Teagasc. The Panel has been informed of many other long-term and deep partnerships in innovation with enterprises, such as a joint lab with Liebherr in Tralee.

Governance (Section 28 1(k)(i)(iii)

The Review Panel cannot confirm compliance with the following criterion, as explained below.

Re Section 1 (k)(i): The Review Panel notes that the currently legally separate institutions do not "have integrated, coherent and effective governance structures in place concerning academic, administrative and management matters" as these would need to be in place at MTU according to the Act. It notes further that the Act's requirements on application include under Section 30 (b) that applications are to include information "demonstrating that plans and arrangements are in place for managing academic, financial, and administrative matters arising on the making of an order under section 36." The panel has looked at the criteria as they are met by each partner institution and at the applicants' statements regarding their intention to create plans in these areas in the future as well as

work done to date in certain administrative areas, such as human resources and information technology.

The panel understands that the institutions cannot act as one legally until they are legally designated to be so. The panel understands further that the institutions faced some uncertainties regarding requirements to become a technological university over the past several years as legislation was pending, and that they therefore found it difficult to proceed with creating academic, administrative and management structures that would be deemed compliant. The institutions also believe that until university designation and the appointment of a new president and governing body they cannot create such structures, as they would have no legitimate status going forward. Nonetheless, the panel would have expected that joint planning would have been further along and more specific regarding a future single institution given the amount of time that has gone into the CIT/ITT collaboration to become MTU.

Quality Assurance (Section 28 1(k)(iii))

The Review Panel finds this criterion to be met.

Engagement (Section 28 1(k)(ii)(iv)(l)

The Review Panel finds these criteria to be met.

Internationalisation (Section 28 1(k)(v)

The Review Panel finds this criterion to be met.

International Advisory Panel Recommendation to the Minister for Education and Skills

With respect to the threshold criteria, preparedness and capacity to function as a new technological university the panel finds that the MTU proposal partially meets the requirements set out in the Technological Universities Act, 2018, but leaves questions unanswered regarding the specifics of how the two applicant institutions are to become one.

Whether the administrative, managerial, and financial capacity to take on technological university functions is assured is not clear. Specifically, the integration of administrative and support services must be carefully prepared with the involvement of all actors. The integration costs of 12M euros over eight years could not be corroborated by Deloitte in its review of the application. Additionally, and importantly, there are questions regarding the resolution of financial deficits at ITT. While concerns were expressed about these reported deficits, the panel did not receive any planning information regarding how these deficits are to be addressed, although it did receive assurances from a representative of the Department of Education and Skills that they are looking at this issue.

What *is* clear to the panel is that there is strong consensus across the internal and external constituencies of both institutions that designation of technological university status is highly desirable and would bring great benefit to students and the region, solving problems of the lack of designated authority at Level 10, the lack of clarity internationally on what Institutes of Technology are as compared to Universities, the limited access to research funding, and the benefit to students that would accrue if all of these problems were resolved.

The Review Panel recommends that the Minister request additional and specific data and information "demonstrating that plans and arrangements are in place for managing academic, financial, and administrative matters arising on the making of an order under section 36" and that these data and information explicitly address the criteria above on which the panel finds itself unable to make a judgment regarding compliance. The Review Panel further recommends that the applicant institutions be required to submit these data and information within a six-month period from the time of the Minister's decision regarding designation.

Further Comments and Suggestions Related to the Road Map Ahead for MTU

The success of the Munster Technology University will be important to the constitution of the region. The engagement with the business community and local stakeholders is strong at different levels and in different types of activities. The panel was provided evidence of links to schools and further education colleges, apprenticeships in a number of trade areas, work placements for students regionally and nationally, upskilling of the workforce in a number of organizations and industries, responsiveness to and encouragement of entrepreneurship, and research and innovation partnerships. Both institutes are recognised for their responsiveness to local needs and the agility of their responses.

The panel was told by external stakeholders that MTU would be the first institution straddling the two counties of Cork and Kerry. A representative of one of the institutes emphasised that "MTU will serve not the region **in** which we are but the region **of** which we are." This strong sense of belonging and the enthusiasm expressed by all for the future institution will certainly go a long way to ensure its success. However, there are a few points of attention that the panel would like to emphasise in the spirit of contributing to this success.

Most importantly, there is a lack of clear vision and strategy for MTU. The panel asked participants in all meetings to express their views about the added value that a technological university would bring. While they eagerly responded, the panel felt that most answers were short on specifics and focused instead on the benefits of the new branding – "TU" rather than "IoT".

The panel would recommend that the two institutes and their governing boards come up with a more specific profile for MTU. This would allow them to formulate a strategy that would include consideration of MTU's foundational role in creating a region and developing it along the N22 corridor. The combination of a rural/small and an urban/large campus, located in different socioeconomic environments, could be highlighted as allowing interesting approaches to multidisciplinarity and to strategies of Europeanisation and internationalisation. Capitalising on differences, while stressing engagement of MTU in its regional environment, could position the future university nationally and internationally and identify its unique selling point.

The application noted that the development of a strategy is left for the future president of MTU to manage. In the panel's view, the formulation of a profile and the clear identification of benefits would go a long way in helping the institutes to overcome current problems with some of their internal constituencies.

While the administrative and technical staff unions were emphatically positive toward the merger project, expressing general satisfaction with the process so far, representatives of the students and

academic staff criticised what they saw as a lack of communication and consultation on the part of the project management during the period leading up to the application.

It is often the case that pre-merger discussions are focused on addressing important administrative issues, such as harmonising human resource policies and the IT environment. This is the case with the MTU applicant institutions, and the project management team has been successful in consulting administrative and technical staff to achieve progress in these areas. While the focus on administrative aspects is usually encouraged by the external consultants who are retained to support such projects, it should not distract from an equally important objective: that of ensuring buy-in from academic staff and students and agreement that the merger is a mechanism to achieve a worthwhile academic project (beyond the reputational aspects that a university designation would bring). The panel notes with concern the strained relationship between senior management and the academic staff union and the real or perceived roadblocks to collaboration in pursuit of the goal of becoming a technological university. The panel urges both parties to seek a path forward and renewal of collaboration, perhaps through mediation.

In addition, the current programme offerings of the two institutes show some degree of overlap. Senior management indicated that programme reviews or changes in registration would lead to changes in the future but that there would be no change engineered at this point in time. It might be opportune, however, to think about a number of changes now, in anticipation of that future, and to include academic staff and students in such discussions. The panel believes that this is a necessary condition for the success of the MTU project.

Both institutes are used to working across several campuses (six in all). This gives the panel confidence that they will be able to bring their operations together as one institution. The panel encourages them, however, to consider two related issues:

- The establishment of a graduate school that would ensure the standards of the PhD and the quality of the student experience. QQI's documents on research degrees would be useful in that respect.
- Deloitte noted that data collection and analysis could be improved. An institutional research office would contribute to better self-knowledge, planning and continuous enhancement. The harmonising of the IT environment could be used as an opportunity to ensure that appropriate data sets are collected and analysed routinely.

Post Script

The panel members would like to express their sincere appreciation to the Minister and the HEA for the privilege of having served on this advisory panel. They would like to thank the leadership of the two institutes, their staff, students and stakeholders for welcoming them and providing multiple opportunities to engage with them in support of the MTU application. They are grateful to the HEA officials who supported their work diligently, professionally, and with unfailing good spirits.