Technological Universities Act 2018 Eligibility Criteria Review

Technological University of South-East Ireland (TUSEI)

Final Report

June 2021



Smart business advisors

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Auditors:	Brían Gartlan Gavin Fernandes Haiwen Luo	David Ryan Eimear Radley Richard Hayes David Denieffe Brian Foley Tom Boland	TUSEI Project Director ITC Project Office Data Co-ordinator Vice President for Strategy Vice President for Academic Affairs and Registrar TUSEI Project Director WIT Programme Executive Director
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OVERALL CONCLUSION OF THIS REVIEW

TUSEI satisfy the quantitative criteria specified under Section 28(1) of Technological Universities Act 2018. There are documents in place to support compliance with the qualitative criteria.

1. Executive Summary

1.1 Introduction

Waterford Institute of Technology (WIT) and Institute of Technology, Carlow (IT Carlow) signed a Memorandum of Understanding committing to creating a new entity, the Technological University of the South East of Ireland ("TUSEI"). Chapter 9 of the Technological Universities Act 2018 (TU Act 2018) sets out the application process for applicant institutes to become a technological university. TUSEI submitted an application for designation under the TU Act 2018 in April 2021.

Section 28 of the TU Act 2018 sets out the eligibility criteria that needs to be met by an applicant institute as part of the application for designation as a technological university.

BDO were appointed by TUSEI to carry out a review on the eligibility criteria specified under Section 28 of TU Act 2018 for TUSEI.

1.2 Objectives

The purpose of the review was to provide assurance on whether TUSEI meets the eligibility criteria specified under Section 28 of the TU Act 2018 in order to support TUSEI's overall objective of achieving designated status as a Technological University.

1.3 Scope of work

We have outlined the potential areas of focus for this review:

- Definition of metrics quoted in the TU Act 2018 for each of the eligibility criteria;
- Compliance with the quantitative eligibility criteria specified;
- Existence of required plans and relevant documents of the qualitative eligibility criteria specified.

The scope of the review covered the activities that TUSEI has undertaken in order to meet the eligibility criteria specified under Section 28 of the TU Act 2018. The eligibility criteria specified are set out in Appendix I.

1.4 Our approach and methodology

We adopted the following approach in performing this review:

- Walkthroughs of the activities that TUSEI has undertaken to ensure compliance with the Section 28 requirements specified under the TU Act 2018;
- Conducted interviews with relevant individuals from WIT and IT Carlow to define the metrics quoted under Section 28 of the TU Act 2018 for each of the eligibility criteria to be reviewed;
- Obtained and reviewed documentation that supports adherence to the Section 28 requirements specified under the TU Act 2018;
- Identified potential gaps/shortfalls from our walkthroughs and examination of documents;
- Verified the existence of required plans and relevant documentation to assess the fulfilment of qualitative eligibility criteria specified under Section 28 of TU Act 2018;
- Re-performed the calculations (where applicable) using the methodologies that had been adopted by TUSEI;

• Performed sample testing for each quantitative eligibility criteria (where applicable) specified under Section 28 of TU Act 2018.

Detailed audit approaches for each criteria requirement are outlined in Section 3 - 6.

1.5 Conclusion

TUSEI has demonstrated compliance with the quantitative eligibility criteria specified under Section 28 of the TU Act 2018, taking into consideration the following areas:

- TUSEI collectively meet the student number eligibility criteria (as set out in Section 28 (1)(a)):
 - 5.14% are research students registered on a programme at masters and doctorate level as a percentage of students on a programme at honours degree level and above).
 - 33.74% of the students on a programme at honours degree level and above are registered on a registered on a programme with stakeholder involvement and 36.37% are classified as mature students.
- TUSEI collectively meet the staff qualifications eligibility criteria (as set out in Section 28 (1)(c)):
 - Of the full-time academic staff engaged in the provision of a programme that leads to an award to at honours degree level and above:
 - o 94.62% hold a masters or doctorate level qualification, and,
 - o 51.27% hold a doctorate level qualification.
- TUSEI collectively meet the full-time academic research staff and doctoral research supervisory staff eligibility criteria (as set out in Section 28 (1)(e) and (f)):
 - 88.41% of the full-time academic staff engaged in both provision of a programme that leads to an award at doctoral degree level and the conduct of research, hold a doctoral qualification.
 - Each of the full-time academic staff engaged in doctoral supervision holds a doctoral qualification and has a record of continued conduct of research in an area relevant to the programme.
- TUSEI collectively meet the research capacity eligibility criteria (as set out in Section 28 (1)(g)):
 - There are 4 fields of education in which they (i) collectively provide programmes that lead to doctoral awards; (ii) that the academic staff and students conduct research.

The other criteria specified under S28(1) not mentioned above are qualitative in nature. BDO verified and confirmed that relevant supporting documentation is in place to support compliance with the qualitative criteria.

Overall, TUSEI satisfies all the quantitative criteria set out in S28(1) under TU Act 2018.

Details of our audit are outlined in Section 3 - 6 of this report.

2. Summary of Findings

We have set out below the high level outcome of our review for the quantitative criteria specified under Section 28(1) of TU Act 2018 and our assessment based on the definitions set out in Appendix III.

S.28 (1) Ref.	TU Act 2018 Legislative criteria	Extract from TUSEI Eligibility Criteria Document	BDO Review	BDO Assessment
(a)	of the students of the applicant institutes registered on a programme that leads to an award to at least honours bachelor degree level—	The SRS return is submitted annually to the Higher Education Authority (HEA) by the Institutes based on a census date of March. TUSEI used the March 2020 SRS returns which were initially submitted to the HEA to calculate the student profile.	The base data used for the analysis was the collated Student Records System (SRS) March 2020 returns to the HEA. TUSEI clarified that the March 2020 SRS student data is the most up to date HEA validated data set. These returns are audited by the HEA and once all issues resolved they are signed off by the applicant institute Registrar to confirm their accuracy. The March 2021 return is incomplete as it is still in an audit process with the HEA. BDO accepted the population and performed sample testing based on the March 2020 SRS returns.	
(a) (i)	at least 4% are research students registered on a programme which leads to an award to at least masters degree level,	The total number of the qualifying students for criteria (a) is 10,099 of whom 519 or 5.14% are considered research students.	BDO reperformed the base data calculation and confirmed that the student population that qualified for this criterion is 10,099, which matches TUSEI's reported figure. We were able to reperform the number of research students and calculated this to be 519 (5.14%) of the total population. Further details on our testing is referenced within Section 3.	

(a) (ii)	at least 30% fall within one or more than one of the following classes of students:	The 30% requirement is achieved in condition (II) and (III).	Applicant institutes are only required to meet one condition on this criterion. As conditions (II) and (III) were met, the compliance outcome for this section is satisfactory.	
	 (I) students who are registered on a programme that is provided on a flexible basis, such as by means of part-time, online or distance learning; 	Of 10,099 students, 1,444 or 14.3% are registered on a programme that is provided on a flexible basis.	TUSEI were not submitting this element of the criteria for assessment. Therefore it was not included in our review.	
	(II) students who are registered on a programme that has been designed, and is being delivered, with the involvement (which shall be construed in accordance with subsection (2)(b)), of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located;	Of 10,099 students 3,407 or 33.74% are registered on programmes so defined.	TUSEI have interpreted the involvement of a programme with the local region as taught programmes that have stakeholder involvement in professional, statutory, or regulatory accreditation/approval. BDO accepted this definition to be appropriate. We reperformed TUSEI's methodology and confirmed that 3,407 out of 10,099, or 33.74% of students fall into the category specified under (a)(ii)(II). We reviewed a sample of 10 programmes and confirmed that external accreditation/approval documentation was in place accordingly. We confirm that this requirement is satisfied.	
	(III) students who are not less than 23 years of age;	Of 10,099 students 3,674 or 36.4% are 23 years or more.	TUSEI defined mature students as those born on or before 31 December 1995. BDO accepted this definition to be appropriate. We noted a discrepancy of one student who should	

			have been excluded from the calculation and the number of mature students should be 3,673 giving a slight reduction in the percentage of overall students to be 36.37%. This however does not impact on TUSEI satisfying the 30% minimum threshold. Further details on our testing is referenced within Section 3.	
(c)	of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level—	The total number of the qualifying staff for criteria (c) is 669.	The methodologies adopted by TUSEI to collate the data to calculate the number of qualifying staff for criteria (c) was reasonable. BDO reperformed the number of full-time academic staff that qualified under this criterion and calculated this to be 669, which matches TUSEI's reported figure. We reperformed the	
(c) (i)	at least 90% hold a masters degree or doctoral degree	Of 669 staff 633 or 94.61% hold either a masters degree or doctoral degree or both.	methodology to calculate the number of staff that hold either a masters degree or doctoral degree and calculated this to be 633 (94.61%), which matches TUSEI's reported figure. The requirement specified under this criteria is therefore satisfied.	
(c) (ii)	at least 45% hold— (I) a doctoral degree, or	Of 669 staff 343 or 51.27% hold a Doctoral degree.	We reperformed the methodology to calculate the number of staff that hold a doctoral degree and calculated this to be 343 (51.27%), which matches TUSEI's reported figure. The requirement specified under this criteria is therefore satisfied. Further details on our testing is referenced within Section 4.	
	 (II) subject to subparagraph (iii), a terminal degree, as well as sufficient practical experience 	TUSEI are not proposing to present cases for equivalency	TUSEI were not submitting this element of the criteria for assessment. Therefore it was not included in our review.	

(c) (iii)	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 more than 10% hold only the qualifications referred to in subparagraph (ii)(II)			
(e)	of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80% hold a doctoral degree—	The total number of the qualifying staff for criteria (e) is 137. Of 137 staff 120 or 87.59% involve in the provision of a doctoral	The methodology adopted by TUSEI in determining full-time academic staff engaged in the provision of a programme leading to an award at doctoral degree is reasonable. BDO reperformed and confirmed that there are 137 full-time academic staff engaged in both activities specified. We further	
(e) (i)	the provision of a programme that leads to an award at doctoral degree level	degree programme that are on Employment Control Framework (ECF) and are research active.	calculated that 120, or 87.59% of the relevant academic staff hold a doctoral degree and are research active, which matched the TUSEI reported figure. This satisfies the 80% minimum threshold.	
(e) (ii)	the conduct of research		Further details on our testing is referenced within Section 4.	
(f)	each of the full-time academic staff of the applicant institutes engaged in the supervision of students registered on a	The total number of the qualifying staff for criteria (f) is 82.	TUSEI have interpreted S.28(1)(f) as those staff who are engaged as principal supervisors of students registered on a PhD. BDO accepted this definition to be reasonable.	

(f)	programme that leads to an award to doctoral degree level— (i) holds—	Of 82 Principal Supervisors 82 or	BDO identified 82 full-time academic staff as the base	
(i)	(I) a doctoral degree, or	100% hold doctoral degree	population for this criterion. We undertook sample testing of the base population of full-time academic staff and confirmed that the sampled staff member held a doctoral degree and is	
	 (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, 	TUSEI are not proposing to present cases for equivalency	research active. Further details on our testing is referenced within Section 4.	
(f) (ii)	has a record of continued conduct of research in an area relevant to the programme	Of 82 Principal Supervisors 82 or 100% are Research Active		
(g)	in respect of not less than 3 fields of education—	TUSEI has research activity across 10 ISCED areas. Based on	TUSEI apply both the research input and output approach to consider the compliance with the criteria. BDO accepted the	
(g) (i)	the applicant institutes provide programmes that lead to awards to doctoral degree level, and	subsequent analysis of input and output, there were 4 areas that were identified as substantially	methods to be reasonable and reviewed the Higher Education and Training Awards Council (HETAC) certificate of approval for both ITC and WIT to confirm the following 4 identified fields of	

(g)	the academic staff and students	"research active" and so were	education fall into the approved Research programmes at level
(ii)	of the applicant institutes	selected for consideration.	10:
	conduct research;	Programmes leading to doctoral	Business, Administration and Law
		degree level are provided in the	Natural Sciences, Maths and Statistics
		following 10 fields, of which	 Information and Communication Technologies
		academic staff and students	Engineering, Manufacturing and Construction
		conduct research:	No issues were noted.
		• Education	
		• Arts and Humanities	Further details on our testing is referenced within Section 5.
		 Social Sciences, Journalism and 	
		Information	
		• Business, Administration and Law	
		• Natural Sciences, Maths and	
		Statistics	
		 Information and Communication 	
		Technologies	
		 Engineering, Manufacturing and 	
		Construction	
		Agriculture, Forestry, Fisheries,	
		Veterinary	
		Health and Welfare	
		Services	

3. Detailed Findings - Student Numbers

This section covers the (a) - (b) criteria set out in Section 28 (1).

3.1 Overview

A merged TUSEI student profile dataset was created by consolidating the ITC and WIT SRS returns. The SRS return is submitted bi-annually to the HEA by the institutes based on a census dates of March and November of each year. The November set is an interim return used as an indicator for the subsequent March return. As the March 2021 return is incomplete and still in an audit process with the HEA, TUSEI used the March 2020 SRS returns submitted to the HEA to calculate the student profile. The Registrar of each institute signs the SRS return confirming its accuracy.

The data submitted to the HEA contains data for graduates (on the preceding academic year), current students, overseas and Erasmus students. The SRS return consists of three files:

- 1. Programme file contains information on the general area of study that a course belongs to e.g. Bachelor of Engineering, Bachelor of Arts, Diploma in Business Studies. The programme file contains descriptors such as programme name, faculty, and programme type (i.e. Undergraduate Degree).
- 2. Course file a course is a denominated area of study within a programme, for instance, Bachelor of Engineering in Electronic and Electrical Engineering. The student has enrolled on the programme Bachelor of Engineering but is pursuing a more specific area of study. The course file contains descriptors such as course name, course code, awarding body etc.
- 3. Student survey contains the individual student or graduate records. A broad range of data is collected: student details such as age; gender; country of origin; course details such as course being pursued; mode of study (full-time/part-time); and subject data (where further breakdown is required e.g. BA Arts, BSc Science).

3.2 Audit Approach

BDO reviewed the process to collate the student profile information applied by TUSEI, obtained both the original and consolidated SRS returns and verified that the specified quantitative requirements outlined in Section 28 (1) (a) under TU Act 2018 are satisfied. We undertook sample testing and obtained supporting documentation to provide further assurance the requirements had been satisfied. As Section 28 (1) criteria (b) is qualitative in nature, BDO confirmed that a required plan is in place (Application document, Chapter 5, 5.6 Research Growth Plans).

S.28 (1) Ref.	Eligibility Criteria (legislative criteria)		
(a)	of the students of the applicant institutes registered on a programme that leads to an award to at least honours bachelor degree level—		
	Definition/TUSEI's Proposal	BDO Review	
	 Programme that leads to an award to at least honours bachelor degree level The Irish National Framework of Qualifications (NFQ) provides guidelines as to what level of qualification would merit at least an honours bachelor's degree. The required level of qualification is level 8 to 10. TUSEI defined this requirement as, and includes 'all ab-initio 3 or 4 year level 8 honours bachelor degree programmes (11), post graduate diplomas (30), higher diplomas (29), taught (25) and research (26) level 9 masters and level 10 PhD (27) programmes'. 	BDO independently consolidated and verified the SRS returns from ITC and WIT to assess TUSEI's compliance with the Eligibility Criteria. BDO Selected a sample of 5 qualifying programmes with 2 students from each of programme and compared the consolidated SRS returns with the independent SRS return from each institution to check the accuracy of data. No issues were noted. We further selected a sample of five programmes and obtained and reviewed supporting documentation (such as approved application form sent to the Research and Development Committee of Academic Council for admission, Assessor's report to academic council, Quality Assurance and Enhancement Review, etc.). This confirmed that the specified programmes reached the required level 8 to 10 qualification as set out in the NFQ.	

Registered students

From the March 2020 SRS merged dataset, a combined 24,598 students were returned to the HEA from TUSEI (ITC and WIT). From this the following were excluded:

1. All graduates;

- 2. All students with "OS" status overseas;
- 3. All incoming Erasmus students (E1, E2, E3, T1, T2, T3, X1, X2, X3);

4. All students on programmes that do not lead to at least an honours bachelor degree. These are programme types: level 6, 7 and minor awards (OW, 10, 12, 14, 15, 16, 23, 24)

Taking into consideration the above definitions, in total, TUSEI has 10,099 students registered on a programme that leads to an award to at least honours bachelor degree level as indicated in the below table.

NFQ	Pro	g Туре	No. of Students
8	11	Undergraduate Honours Degree	8,147
9	25	Masters Taught (Postgraduate)	859
9	26	Masters Research (Postgraduate)	343
10	27	PhD (Postgraduate)	176
8	29	Higher Diploma	501
9	30	Post Graduate Diploma	73
Total			10,099

We recognised a total of 24,597 students from the SRS returns of ITC and WIT. There is a slight difference with 24,598 TUSEI reported figure which is due to a single duplication identified and revised by TUSEI. We applied filters in line with TUSEI's methodology and calculated the number of qualifying students as 10,268 students. The gap between BDO's calculation and TUSEI's qualifying population 10,099 originates from the necessary deduction of students in "OX" category. This step is omitted from the TUSEI data collating guidance document. Taking this step into consideration, BDO confirmed that there are 10,099 students registered on a programme that leads to an award to at least honours bachelor degree level, which matched the TUSEI reported figure.

	Student Number
WIT	11,884
ITC	12,713
Total (WIT+ITC)	24,597
Merged	24,597

(a)(i)	a)(i) at least 4% are research students registered on a programme, which leads to an award to at least master's degree level, and		
	Definition/TUSEI's Proposal	BDO Review	

	Research studentsTU Act 2018 defines as a research student as "a student who is registered on a programme of education and training where not less than 60% of the available credits are assigned in respect of a thesis or theses prepared by the student based on research conducted by him or her". The same definition for research students was applied by TUSEI.In particular, programme types 26 and 27 were identified for this criterion. A number of level 9 programmes which were classified as type 25 in the initial SRS upload were subsequently reclassified as type 26.The NFQ includes three research-related award-types: Masters, Doctoral and Higher Doctoral."A total of 519 TUSEI students are therefore considered as research students representing 5.14% of the base number (10,099)	BDO selected a sample of programmes from type 26 (6 samples), 27 (4 samples) and requested supporting documentation to check their 60% research component had been reached. From the samples selected, we identified that the research components for these programmes are 60% or over of the required ECTS and for reclassified programmes, we reviewed the reclassification awards documents and email correspondence between TUSEI and HEA for verification. We also re-performed the methodology and confirmed that 519 students or 5.14%, are considered research students which satisfies the requirements of the criterion.	
(a)(ii)	at least 30% fall within one or more than one of the following classes of students:		
	(I) Students who are registered on a programme that is provided on a flexible basis,	such as by means of part-time, online or distance learning	
	(II) Students who are registered on a programme that has been designed, and is being delivered with the involvement (which will be construed in accordance with subsection (2)(b)), of business, enterprise, the professions, the community, local interests in the region in which the campuses of the applicant institutes are located;		
	(III) Students who are not less than 23 years of age.		
	Definition/TUSEI's Proposal	BDO Review	

	university	to increase within 10 years of the date of the making of an order under se		
(b)			nel, that they would have capacity, as a technological	
(b)	university to increase within 10 years of the date of the making of an order under section 36, from at least 4% to at least 7%, the proportion of t research students referred to in paragraph (a)(i);		, from at least 4% to at least 7%, the proportion of their	

4. Detailed Findings - Staff

This section covers the (c) - (f) criteria set out in Section 28 (1).

4.1 Overview

TUSEI used the December 2020 Employment Control Framework (ECF) returns from both ITC and WIT as the basis of their analysis for the staff profile criteria. A spreadsheet ('Spreadsheet X') was developed to reflect the consolidated staff activity and qualifications. It is a summary of the ECF which was used to collate academic staff activities that would meet the eligibility criteria in the academic year 2020/2021. Subsets of the spreadsheet, Tables Z1 and Z2, capture staff involved in both the provision and supervision of Level 10 programmes, respectively.

The HEA requires Higher Education Institutions (HEIs) to report quarterly on their core and noncore staffing in line with the principles set out in the ECF. The ECF returns were used as the basis for developing the staff base number as they are developed from the raw CoreHR data at a given date to identify staff under each category and their pay multiplier. The merged December 2020 ECF return was the quarterly return used by TUSEI to ascertain the staff base number on which to calculate the staff eligibility criteria. The ECF returns were based on data from the CoreHR (HR Database) system, for each institute and identified a total of 1,774 staff.

4.2 Audit Approach

BDO reperformed the process to collate staff profile information applied by TUSEI. We obtained and reviewed documents such as Spreadsheet X, Table Z1 and Z2, the ECF returns and the postgraduate register from both WIT and ITC. We verified that the specified quantitative requirements outlined in Section 28 (1) (c), (e) and (f) were met. We performed sample testing and reviewed supporting documentations to provide further assurance. As Section 28 (1) criteria (d) is qualitative in nature, BDO verified that a required plan is in place (Application document, Chapter 5, 5.6 Research Growth Plans).

S.28 (1) Ref.	Eligibility Criteria (legislative criteria)		
(c)	 of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level— (i) at least 90% hold a masters degree or doctoral degree, (ii) at least 45% hold— (I) a doctoral degree, or (II) subject to subparagraph (iii), a terminal degree, as well as sufficient practical experience gained in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably be viewed by the advisory panel as equivalent to a doctoral degree, and (iii) not more than 10% hold only the qualifications referred to in subparagraph (ii)(II); 		
	Definition/TUSEI's Proposal	BDO Review	
	Academic Staff TUSEI define academic staff as professionals who have responsibility for planning, directing and undertaking academic teaching and/or research within the Institute. Academic staff includes those personnel who hold an academic rank such as senior lecturer (including head of faculty, head of department, head of campus), lecturer, assistant lecturer, associate lecturer, research supervisor or associate supervisor as well as personnel with other titles, if their activities include L8, L9 or L10, instruction or research supervision.	 BDO recognised a total of 1,774 staff. By reviewing TUSEI's workbook and reperforming TUSEI's methodology, we confirmed that there are 669 full-time academic staff that qualified under this criterion. (i) BDO confirmed that 633 out of 669, or 94.62% of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level hold a masters degree or doctoral degree. This satisfies the requirements of the criterion. 	
	Full-timeTUSEI classified as full-time all personnel employed directly by the Institute on a full-time contract, including those who are availing of approved leave or partial leave (inter alia: parental, sickness, maternity, career break, sabbatical) for a defined period of time.Programme that leads to an award to at least honours bachelor degree level	 BDO confirmed that 343 out of 669, or 51.27% of the relevant academic staff hold a doctoral degree. This satisfies the requirements of the criterion. TUSEI were not proposing to present cases for equivalency, therefore, this area is not included in our review. To provide further assurance, BDO selected a sample of 10 staff from the qualifying population (669) and reviewed their staff contracts to confirm they are full-time academic staff and reviewed details of their qualifications including parchments to ascertain that they are full-time academic staff and hold valid qualifications as required. No issues were noted. 	

	TUSEI identified and included in the baseline count all full-time academic staff allocated teaching against programmes of the following types. Undergraduate Honours Degree (11); Masters Taught (Postgraduate) (25); Masters Research (Postgraduate) (26); PhD (Postgraduate) (27); Higher Diploma (29); Post Graduate Diploma (30). TUSEI excluded all other staff from the count. TUSEI identified 669 full-time academic staff as being engaged in the provision of a programme that leads to an award to at least honours bachelor degree level.			
(d)	the applicant institutes have a plan that demonstrates, to the satisfaction of the university, to increase, within 10 years of the date of the making of an order us full-time academic staff referred to in paragraph (c)(ii);			
	BDO Review			
	As this requirement is qualitative in nature, BDO confirmed that a plan is documented in the Main Application document, Ch. 5, 5.6 Research Growth Pla			
(e)	 of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80% 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; 			
	Definition/TUSEI's Proposal	BDO Review		
	Full-time academic staff engaged in the provision of a programme that leads to an award at doctoral degree levelTUSEI have interpreted this requirement as:• principal supervisor,	BDO accepted TUSEI's definition to be reasonable. We reperformed TUSEI's methodology and confirmed that there are 137 full-time academic staff engaged in both activities specified. We further calculated that 120, or 87.59% of the relevant academic staff hold a doctoral degree. This satisfies the requirements of the criterion.		
	 non-principal associate supervisor(s), excluding adjunct/external those full-time academic staff involved in the delivery of the Doctorate of Business Administration (DBA) programme. 	 We selected a sample of 12 staff and reviewed the following documents to provide further assurance: Employment contracts to ascertain that they are full-time academic staff members, and 		
	 TUSEI have interpreted this requirement as full-time academic staff who have: a peer reviewed publication (including those in press) in last 3 years (book chapters, journals, conference publications, commissions or 	 Qualification to ascertain the qualification per the database matched the transcript/parchment held on staff file Research assessment to show that these staff are research active. 		
	other creative works, policy papers, commissioned reports, named inventor on patent); or	No issues were noted.		

	 been a research grant recipient in the last 3 years (competitive fund, awards from arts bodies, contract research, consultancy). TUSEI identified 137 full-time academic staff as the population of criteria (e), among which 120, or 87.59% satisfy the two requirements specified. 		
(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 (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, and (ii) has a record of continued conduct of research in an area relevant to the programme; 		
	Definition/TUSEI's Proposal BDO Review		
	Eull-time academic staff engaged in the supervision of students registered on a programme that leads to an award to doctoral degree level TUSEI have interpreted this requirement as staff who are engaged as principal supervisors of students registered on a PhD.	 BDO identified 82 full-time academic staff as the base population of this criteria using TUSEI's methodology. We reperformed TUSEI's methodology and confirmed that 82 out of 82, or 100% of the relevant academic staff hold a doctoral degree and are research active. We undertook sample testing and confirmed that the sample of qualifying full-time academic staff hold a doctoral degree and is research active. We selected a sample of 12 staff and reviewed the following documents to confirm that relevant academic staff meet the criteria: Employment contracts to ascertain that they are full-time academic staff members; Qualifications to ascertain the qualification per the database 	
		matched the transcript/parchment held on staff file;Research assessment to show that these staff are research active; and	
		The student registration form which records the name of the research supervisor.	
		No issues were noted.	

5. Detailed Findings - Research Capacity

This section covers the (g) - (j) criteria set out in Section 28 (1).

5.1 Overview

TUSEI have categorised fields of education in line with the latest version (F2013) of the International Standard Classification of Education Descriptors (ISCED). To determine the magnitude of research activity under each ISCED, the following data was gathered:

- 1. Level 10 provision:
 - Identification of the ISCED areas where TUSEI has delegated authority and/or provider approval status to L10
 - The number of level 10 graduates, the maximum number of registered L10 students, per ISCED, 2015-2020, identified through postgraduate registers
 - 2. Conduct of research
 - The number of research active staff 2017-2019, by principal ISCED area of activity, identified through an analysis of peer reviewed publications, research grants awarded and KTI activity over the period
 - Numbers of contract researchers and postdoctoral researchers 2019/2020 by ISCED
 - Peer reviewed articles 2017-2019 by ISCED, identified via SCOPUS
 - Other publications and RDI outputs as identified by individual active researchers
 - The number and value of RDI/KTI projects by ISCED, 2017-2019.

TUSEI used both the input and output approach to evaluate the research activities in the fields of education. BDO accepted this approach to be reasonable.

Input Approach: Research performance based on input was used to determine on a research input basis. The peak number of doctoral degree student enrolments in the previous 5 years and the number of research active staff in each ISCED area. Both were combined to generate an overall picture of research active personnel per domain area using data from both research offices, individual staff member research profiles and the registries.

Output Approach: Research performance based on output was used to assess research activity and focused on the number of doctoral degree student graduates as per the March 2020 SRS, the number of post-doctoral researchers, the number of research publications, the number of knowledge transfer activities and the value of research grants using data from the March 2020 SRS return, the research offices from both research offices, individual staff member research profiles and the registries.

5.2 Audit Approach

BDO accepted the approaches TUSEI applied in evaluating their compliance with the quantitative legislative criteria specified under S28(1)(g) to be reasonable. Sample testing was performed to provide further assurance. We randomly selected areas of research active, obtained and reviewed supporting documents such as Higher Education and HETAC certificates of approval and grant agreements. As Section 28 (1) criteria (h) – (j) are qualitative in nature, BDO verified that relevant supporting documents are in place.

S.28 (1) Ref.	Eligibility Criteria (legislative criteria)		
(g)	in respect of not less than 3 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;		
	Definition/TUSEI's Proposal	BDO	Review
	<u>Programmes that lead to awards to doctoral degree level</u> TUSEI identified the following four fields of education that satisfy the two	(i)	BDO reviewed the HETAC certificate of approval for both ITC and WIT and confirmed that the four fields of education TUSEI identified all fall into the approved Research programmes at level 10.
	 requirements specified: Information and Communications Technologies (06) Natural Sciences, Math and Statistics (05) Engineering, Manufacturing and Construction (07) 	(ii)	BDO obtained the postgraduate register, which is a consolidated dataset showing the academic thesis and supervisor information of TUSEI postgraduate students. BDO confirmed that the academic students in the identified four fields conduct research.
	• Business, Administration and Law (04)		We selected one active research area - Research Grants Awarded (2017 to 2019) and requested supporting documents. We obtained the list of active academic staff, selected 2 samples from each of the fields and reviewed the grant agreement, PhD Scholarship Programme Terms and Conditions and submitted proposals, etc. to confirm that academic staff in the identified fields conduct research. No issues were noted.
(h)	 (i) that they carry out innovation activity and conduct research to a high standard, and (ii) that the innovation and research has positive social and economic effects on business, enterprise, the professions, the community, local interests and 		
	other related stakeholders in the region in which the campuses of the applicant institutes are located; BDO Review		
	As this requirement is qualitative in nature, BDO verified that a relevant declaration is documented in the main application document, Chapter 5, 5.6 Research Growth Plans and appendix Chapter 5, 5.1 Overview of Current Research and Innovation Activity.		

(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;
	BDO Review
	This requirement is qualitative in nature. BDO verified that the HETAC Certificate approval for Level 9 and 10 for both ITC and WIT is in place and reviewed the ITC and WIT profiles online for QQI Institutional review.
(j)	the applicant institutes have a plan that demonstrates to the satisfaction of the advisory panel that they would have capacity, as a technological university to increase within 5 years of the date of the making of an order under section 36, from at least 3 to at least 5, the fields of education referred to in paragraph (g);
	BDO Review
	As this requirement is qualitative in nature, BDO confirmed that a plan is in place (Main application document, Chapter 5, 5.6 Research Growth Plans).

6. Detailed Findings - Capacity to Perform Functions of a TU

This section covers the (k) - (I) criteria set out in Section 28 (1).

As Section 28 (1) criteria (k) - (I) are of qualitative nature, BDO checked that relevant supporting documents are in place.

S.28 (1) Ref.	Eligibility Criteria (legislative criteria)		
(k)	the applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time they apply under section 29 for an order under section 36, the capacity to effectively perform the functions of a technological university and in particular demonstrate – (i) that they have integrated, coherent and effective governance structures in place concerning		
	academic, administrative and management matters, (ii) that they have strong links with business, enterprise, the professions, the community, local interests and other stakeholders in the region in which the campuses of the applicant institutes are located,		
	(iii) that they have, under section 28 of the Act of 2012, established procedures in writing for quality assurance in relation to which—		
	(I) no notice has been furnished by the Qualifications and Quality Assurance Authority of Ireland under section 36(1) of the Act of 2012, or		
	(II) approval has not been withdrawn under section 36 of that Act,		
	 (iv) that they develop, and have procedures in place to further develop programmes that respond to the needs of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located, (v) that they - 		
	 (i) that they — (i) provide opportunities for staff and students of the applicant institutes to teach, learn or conduct research at institutions that provide higher education outside the State, or to obtain relevant work experience outside the State, 		
	(II)provide opportunities for staff and students of institutions that provide higher education outside the State to teach, learn or conduct research at the applicant institutes, and		
	(III)collaborate with institutions that provide higher education outside the State, including on joint research projects and for the purpose of provision of programmes;		
	BDO Review		
	As this requirement is qualitative in nature, BDO confirmed that relevant supporting documents are in place:		
	(i) Main Application Document: Chapter 8 Establishing TUSEI;		
	(ii) Main Application Document: Chapter 5, 5.4 regional alignment and Chapter 6 Engagement;		
	(iii) Confirmation Letter from both WIT and ITC that both have established formalised quality assurance procedures;		
	(iv) Main Application Document: Chapter 4, 4.10 Stakeholder Input to Programme Design and Delivery, Chapter 5, 5.4 regional alignment and Chapter 6 Engagement, and		
	 (v) Main Application Document: Chapter 6, 6.3 Internationalisation and International partnership 		
	(vi) Details of existing collaborations and Erasmus figures.		
(l)	that they develop and promote and if an order is made under section 36 have procedures in place to further develop and promote, as a technological university, strong social and cultural links, and links supporting creativity, between the technological university and the community in the region in which the campuses of the technological university will be located.		
	BDO Review		
	This requirement is qualitative in nature. BDO confirmed that a relevant declaration is documented in Chapter 5, 5.4 regional alignment, Chapter 6, 6.1 Regional Engagement and Chapter 8 Establishing TUSEI of the main application document.		

Appendix I - Eligibility Criteria

We have defined each requirement based on whether it is a quantitative or qualitative criterion.

Section 28 TU Act Reference	Criterion	Quantitative or qualitative
(a)	of the students of the applicant institutes registered on a programme that leads to an award to at least honours bachelor degree level—	N/A
(a) (i)	at least 4% are research students registered on a programme which leads to an award to at least masters degree level,	Quantitative
(a) (ii)	at least 30% fall within one or more than one of the following classes of students: (I) students who are registered on a programme that is provided on a flexible basis, such as by means of part-time, online or distance learning; (II) students who are registered on a programme that has been designed, and is being delivered, with the involvement (which shall be construed in accordance with subsection (2)(b)), of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located; (III) students who are not less than 23 years of age;	Quantitative
(b)	the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university to increase within 10 years of the date of the making of an order under section 36, from at least 4% to at least 7%, the proportion of their research students referred to in paragraph (a)(i);	Qualitative
(c)	of the full-time academic staff of the applicant institutes engaged in the provision of a programme that leads to an award to at least honours bachelor degree level—	N/A
(c) (i)	at least 90% hold a masters degree or doctoral degree	Quantitative
(c) (ii)	at least 45% hold— (I) a doctoral degree, or (II) subject to subparagraph (iii), a terminal degree, as well as sufficient practical experience gained	Quantitative

(g) (ii)	the academic staff and students of the applicant institutes conduct research;	Quantitative
(g) (i)	the applicant institutes provide programmes that lead to awards to doctoral degree level, and	Quantitative
(g)	in respect of not less than 3 fields of education-	N/A
(f) (ii)	(ii) has a record of continued conduct of research in an area relevant to the programme	Quantitative
(f) (i)	 (i) holds— (l) a doctoral degree, or (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, 	Quantitative
(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—	N/A
(e) (ii)	the conduct of research	Quantitative
(e) (i)	the provision of a programme that leads to an award at doctoral degree level	Quantitative
(e)	of the full-time academic staff of the applicant institutes engaged in both of the following, at least 80% hold a doctoral degree—	N/A
(d)	the applicant institutes have a plan that demonstrates, to the satisfaction of the advisory panel, that they would have capacity, as a technological university, to increase, within 10 years of the date of the making of an order under section 36, from at least 45% to at least 65%, the proportion of their full-time academic staff referred to in paragraph (c)(ii);	Qualitative
(c) (iii)	not more than 10% hold only the qualifications referred to in subparagraph (ii)(II)	Quantitative
	in the practice of a profession to which the programme relates, such that the degree and experience together can reasonably be viewed by the advisory panel as equivalent to a doctoral degree, and	

<i>4</i> . >		
(h)	in relation to a programme referred to in paragraph (g), the applicant institutes demonstrate, to the satisfaction of the advisory panel—	N/A
(h) (i)	that they carry out innovation activity and conduct research to a high standard, and	Qualitative
(h) (ii)	that the innovation and research has positive social and economic effects on business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located;	Qualitative
(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	Qualitative
(j)	the applicant institutes have a plan that demonstrates to the satisfaction of the advisory panel that they would have capacity, as a technological university to increase within 5 years of the date of the making of an order under section 36, from at least 3 to at least 5, the fields of education referred to in paragraph (g)	Qualitative
(k)	the applicant institutes demonstrate to the satisfaction of the advisory panel that the applicant institutes have, at the time they apply under section 29 for an order under section 36, the capacity to effectively perform the functions of a technological university and in particular demonstrate — (i) that they have integrated, coherent and effective governance structures in place concerning academic, administrative and management matters, (ii) that they have strong links with business, enterprise, the professions, the community, local interests and other stakeholders in the region in which the campuses of the applicant institutes are located, (iii) that they have, under section 28 of the Act of 2012, established procedures in writing for quality assurance in relation to which—	Qualitative

		1
	 (I) no notice has been furnished by the Qualifications and Quality Assurance Authority of Ireland under section 36(1) of the Act of 2012, or (II) approval has not been withdrawn under section 36 of that Act, (iv) that they develop, and have procedures in place to further develop programmes that respond to the needs of business, enterprise, the professions, the community, local interests and other related stakeholders in the region in which the campuses of the applicant institutes are located, (v) that they — (I) provide opportunities for staff and students of the applicant institutes to teach, learn or conduct research at institutions that provide higher education outside the State, or to obtain relevant work experience outside the State, (II) provide opportunities for staff and students of institutions that provide higher education outside the State to teach, learn or conduct research at the applicant institutes, and (III) collaborate with institutions that provide higher education outside the State, including on joint research projects and for the 	
(I)	purpose of provision of programmes; that they develop and promote and if an order is made under	Qualitative
	section 36 have procedures in place to further develop and promote, as a technological university, strong social and cultural links, and links supporting creativity, between the technological university and the community in the region in which the campuses of the technological university will be located	

Appendix II - Personnel

BDO appreciates the time provided by all the individuals involved in this review and would like to thank them for their assistance and cooperation.

Name	Job Title
David Ryan	TUSEI Project Director ITC
Eimear Radley	Project Office Data Co-ordinator
Richard Hayes	Vice President for Strategy
David Denieffe	Vice President for Academic Affairs and Registrar
Brian Foley	TUSEI Project Director WIT
Tom Boland	Programme Executive Director

Appendix III - Definitions

ASSESSMENT SCALE		
	Criterion has not been satisfied.	
	Criterion has been partially satisfied.	
	Criterion has been fully satisfied.	

Brían Gartlan bgartlan@bdo.ie +353 1 470 0202

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