Expert Panel Report to HEA on TU4 Dublin Application

September 2014

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Professor Kay Harman

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A. Background

1. This is the report of the Expert Panel set up by the Higher Education Authority (HEA) in July 2014 to review the Stage 2 submission received from the Dublin Technological University Alliance, in accordance with the Process and Criteria for Designation as a Technological University (TU) approved by the Minister for Education and Skills. The process provides for four stages, involving initial approval by the Minister to proceed towards planning for designation as a technological university, preparation of a plan, review and decision on the plan, and formal application for designation as a Technological University. A principle of the process is the use of international reviewers to ensure that any applicant institutions meet international quality levels. The full process and criteria are set out in appendices to this report.

2. This report presents the evaluation of the international expert panel as provided under stage 3 of the process. As a general comment, the panel wishes to note the rigorous, thorough and well structured process followed to date in developing the Technological University concept in Ireland.

3. The panel comprised Professor Lauritz B. Holm-Nielsen (former Rector of Aarhus University, Denmark – panel chair), Professor Kay Harman (former Dean of Graduate Studies, and Adjunct Professor, University of New England, Australia) and Professor Philip Gummett (former chief executive, Higher Education Funding Council for Wales – panel secretary).

4. The panel's terms of reference were to provide an agreed report to the HEA, by 12 September 2014, to include:
   - A separate Stage 3 evaluation of each of two Stage 2 plans for TU designation;
   - The opinion of the Expert Panel as to whether the proposal is likely to meet the criteria for designation as a TU within the proposed timeframe;
   - If the Panel is of the view that the plan presented represents a credible and realisable proposal, the advice which the panel may provide to the applicant and/or to the HEA on any matter relating to its implementation.

   The evaluation was required to show that it has had regard to:

   - the capacity of the proposed consortium to achieve the objectives of consolidation in terms of academic rationale, scale, the degree of integration through alliances and membership of clusters and the extent to which workplace practices have been developed to bring them into line with those of a modern university; and
   - the existing position of the proposed consortium in relation to each of the TU designation criteria as set out in the Process and Criteria document, and its

capacity, based on its developmental trajectory, to meet these criteria within a reasonable timeframe.

5. Panel members received the Stage 2 application for the proposal in mid-July, together with other material including the HEA document *'Process and criteria for designation of a technological university'.* We studied them carefully, had individual telephone briefings on context and process from HEA in early August, followed by a further teleconference involving all the panel plus HEA colleagues on 21 August, and assembled in Dublin for September 1 – 4.

6. We received further very helpful contextual briefings from the HEA (see annex) and Quality and Qualifications Ireland (QQI) (see annex) on 1 September, and had a discussion with senior officials from the Department of Education and Skills. We are very grateful to those who provided these briefings, and also to the HEA staff who supported the panel's work so ably and efficiently.

7. On 2 September, the Panel met representatives from the proposers (see annex) from 9.00am – 12 noon.

8. We are very grateful for these extremely helpful presentations, followed by detailed discussion, which greatly assisted us in clarifying our understanding of the proposals, and of progress made since the application was submitted earlier in the year.

9. The Panel then deliberated on 3 and 4 September, agreed our conclusions and advice, and subsequently finalised this report via email.

B. Stage 3 Evaluation

B (i) Opinion of the Panel as to whether the proposal is likely to meet the criteria for designation as a technological university within the proposed timeframe

The panel first wishes to note the significant step that Ireland is taking in introducing a new type of university, the Technological University, into its higher education landscape. The expectations placed upon these new universities are challenging. Challenges are also implied to employers, in respect of the need to work closely with the Technological Universities if they are to deliver their full potential, and to Government, in respect of providing adequate initial support to get this exciting new development off to an effective start.

The panel is of the opinion that the TU4Dublin proposal is likely to meet the criteria for designation as a technological university within the proposed timeframe, subject to the considerations listed below.

1. Mission

- We commend the way in which the proposers recognise the expectations raised by the historic step now being taken in Ireland with the introduction of Technological Universities.
- We also commend the way in which they are using the process of defining the mission as a vehicle for deep reflection on what they take to be the character of a TU.
- We commend the inclusiveness of dialogue with staff and students, via open fora as well as formal working groups and other structures, which of course it will be essential to continue throughout the process.
- We also commend the Alliance's level of engagement with external partners.
- We advise continuing thought as to the features that distinguish the new TU from both its precursor Institutes of Technology (without losing the features of the precursors that properly should continue in the TU) and from 'traditional' universities. We recognise that this is a complex and novel challenge, but regard it as essential because it will help to crystallise precisely the special attributes of the new TU and hence inform how it develops and delivers what it does.
- Among the key features expected of a TU, in addition to being practice-based with research-informed teaching, appear to us to be the range of teaching provision (levels 6-10), with the associated scope for progression via appropriate pathways; the strength of provision for work based, and lifelong learning; the weight of postgraduate research activity relative to that in Institutes of Technology; the key role of experienced practitioners in teaching and research; very close employer links with involvement in curriculum design, teaching and supervision; a strong vocational/professional orientation; a strong regional as well as a wider focus; highly developed responsiveness and flexibility in delivery, with demand (via feedback from employers) as a key driver; and an approach to research that entails building strength in focused areas, and in close partnership with users (so-called Mode 2 knowledge generation).

2. Institutional Profile

- In our experience of universities internationally, this proposed TU would sit comfortably in their company.
- There is good evidence of acceptance of the applicant institutions by universities outside Ireland as partners in teaching and research.

- We commend the work that has already been done by the partners to begin to address the elements of the profile on a collective basis.
- The proposers recognise the importance, in moving to TU, not to jeopardise existing good work at levels 6-8, to maintain clear progression pathways, and to continue to address regional agendas

3. Student Profile

- The evolving student profile looks entirely appropriate to TU status.
- There is an important opportunity with the formation of a TU to make better provision for the kind of student who combines intellectual strength with entrepreneurial and creative attributes.
- It is important, *pace* the 'T' in TU, to maintain a strong position over Arts/Humanities/Social Science research students with a strong practitioner orientation, and to make this, via multidisciplinary activity, and student interactions across disciplines (socially as well as formally), one of the distinctive features of the new TU.
- It is similarly important to consider developing further means of attracting partnership funding for expanding the lifelong learning market.
- The target for 4% of postgraduate research students at levels 9 and 10 has not yet been reached, but with the current figure at 2.6%, the plans in place to fill the gap are entirely plausible.
- We commend the fact that there is already a comprehensive Graduate School in place serving all partners.
- The proposers recognise the need to work hard on additional sources of finance for graduate students, including the scope for more partnerships with companies.
- They should also consider carefully how to link the search for further funding to the development of their research profile, eg, seek research students only in areas of strong research activity, which should help with funding of studentships.

4. Staff Profile

- The proposers are already well on the way to the required target with, we were told, 37% of relevant staff now having PhDs and 87% with a level 9 qualification, and with clear and plausible plans to increase these percentages.
- In addition, there is plenty of scope to contribute from the allowed 10% towards the required 45% at level 10 via professional equivalence. We note that the partners are still considering what definition to use for professional equivalence, and are already clearly aware of the need to apply appropriate tests of professional standing and research productivity for this purpose. They will, however, need some dialogue with the HEA to agree a process for determining professional equivalence to the PhD, which needs to be done in a tailored way,

reflecting the specific characteristics and requirements of each post/discipline area.

- The proposers are alert to the issues surrounding modernising workplace practices and employment contracts that are reflective of a modern university including, *inter alia,* such matters as the flexible delivery of programmes for diverse learner groups, the length and structure of the academic year, and the efficient utilisation of the institution's physical resources and other infrastructure.
- They are already experienced in dealing with workload management issues around variable teaching and research loads.
- They are also alert to the HR challenges involved in developing the competency profile appropriate to a TU, including the need for an appropriate balance between upgrading existing staff and recruiting 'already appropriate' new staff.
- The proposers will also need to consider, consistent with the specific character of a TU, what should be the correspondingly distinctive features of professors they appoint.

5. Teaching, Learning and Curriculum Development

- The proposers are well advanced in their thinking about the requirements for integration and rationalisation of elements across the three campuses, and the use of digital technologies to enable both learning and teaching, and student support and administration.
- There is a real opportunity in the 'Digital Campus' concept to develop an innovative approach, and it would be worthwhile seeking the best possible international advice on how to be at the leading edge in what is now a fast developing area. We have in mind organisations such as HEAnet in Ireland, JISC in the UK, and similar bodies elsewhere.
- It will be important to continue to capture feedback from external partners via the daily praxis of interactions between staff, students and external partners, as well as through more formal structures.

6. Research

- The proposers have a clear sense of their strengths, especially as applied to the new mission implied by TU status.
  - There is a need to concentrate on maintaining those strengths and critical mass in these areas, and to continue with their strong user orientation in the development and delivery of research activity in accord with 'Mode 2' research.
  - The user orientation in research needs to be maintained in a manner consistent with the new mission, for example by joint staff positions with external partners, staff exchanges, adjunct appointments of partner staff, co-funding of research and students, and so on.

- We commend the work already done to create a single Director of Research, Innovation and Enterprise Services between the partners. We recommend that, in light of the practice orientation of a TU, the proposers explore ways of exposing research students, as part of their training, to the work done in that directorate.

7. International Profile

- This is already well developed, with a good set of international partnerships for both teaching and research.
- We recommend continued work to further strengthen these, partly to facilitate staff and student exchanges and research, and also to provide a comparator base of institutions with similar missions for benchmarking and performance improvement.

8. Leadership, Management and Governance

- The proposers' intentions regarding governance are clear and appropriate.

- They have a commendable record of having already begun to 'act as one' in major strategic decisions, which is important both in terms of ensuring consistency with their desired direction of travel and of beginning, via collective decision making, to release resources in order to create headroom for necessary new investment.
- A clear position has been reached on the critical question of leadership through the merger and TU designation process, and then to go to international competition for the post of President.
- In their quest for TU status, the energy and commitment of the senior leaders is palpable. It will be important to maintain this and keep the momentum up.
- They will need to manage carefully the process of appointing the post-merger President such that the appointee will be very clear, in the light of the changes that by then the staff and students will have experienced, what style of leadership the Governing Body expects in the immediate future.

Financial considerations
- The planning assumptions appear prudent.
- The proposers should, however, keep rechecking, via sensitivity analysis, the safety of their assumptions.
- They are alert to the need for new income streams. We understand that they are actively exploring additional sources, eg, large training programmes for major companies, and we recommend continuation of this.
- We also recommend exploring the scope to draw upon EU Structural funds for research studentships and other research support.

- No parallel drawn from elsewhere can be exact, but an example of what we have in mind is the Welsh Knowledge Economy Skills Scholarships. These were part of a European Convergence Programme which, between 2009 and 2014, funded over 400 PhD and research Masters students at eight universities, in partnership, for each student, with an employer who was required to make a very modest contribution in cash and a further contribution in kind, in the form of supervisory support and facilities, (See http://www.higherskillswales.co.uk/kess/index.php.en?menu=0&catid=0).
- Similarly, in Denmark the Ministry for Economic and Business Affairs runs a programme which includes co-funding from the EU's regional and social funds. This Danish programme for "growth" is decentralised and administered by 5 regional "growth fora", comprising representatives from regional government, businesses, unions, and the institutions of higher education in the region. The budget is €10-20 million per year. Projects (scale approx €1 million per project) involve partners from industry, business, universities and local government. In many cases universities are the lead partner. The first funding was available in 2005, and these "growth fora" have played a significant role in strengthening Denmark's national innovation system.The projected merger costs appear comparable to similar mergers elsewhere.
- The proposers have planned on the basis of no further transitional support, while at the same time hoping that there will be some. In our opinion, in the interests of maintaining momentum, minimising overall cost and maximising benefits, some additional financial support would be very helpful.

B (ii) Capacity to achieve the objectives of consolidation

The panel is of the opinion that the proposers have the capacity to achieve the objectives of consolidation, subject to the considerations listed below:

1. **Academic rationale:**

- A clear capacity is demonstrated, as indicated above, particularly in terms of the partners' sense of their new mission.
- They appear very alert to the potential to create an innovative form of HE within the Irish landscape.

2. **Scale:**

- This consideration is also clearly met in general terms
- There are plausible plans to address specific areas where there remain deficits.

3. **Degree of integration through alliances and membership of clusters:**

- The proposers have already achieved a significant degree of integration including joint decision making on major issues, joint activities and appointments, and integration of library resources.
    - o There has been extensive and productive interaction at various levels between staff of the partners.
    - o The leadership team gives every appearance of being well integrated and operating effectively together, and evidence of this is a very clear approach to leadership of the merger and TU designation processes.

- However, work is still in progress on the organisational plan, where they are still seeking to capture the thoughts of staff.
    - o They have already decided that multidisciplinary offerings will be available on all sites, but much else remains to be determined.
    - o That said, they seem clear about the challenges and the need to reach conclusions before too long.

- The proposed Digital Campus will be an important enabler of consistent delivery and support across all campuses.

4. **Extent to which workplace practices have been developed to bring them into line with those of a modern university:**

- The proposers are already well on the way to alignment with modern university practice, with an existing management capacity to vary workloads.

- They appear to be in fruitful dialogue with the unions on ways of addressing HR and industrial relations issues.
- They are already alert to the HR challenges involved in developing the competency profile appropriate to a TU, including the need for an appropriate balance between upgrading existing staff and recruiting 'already appropriate' new staff.
- They will need to ensure that academic line managers, upon whom more responsibility for performance management will fall in the new contractual environment, are adequately prepared for this role.

A. Overall opinion of the Panel

- We commend the substantial work already done and ongoing, and the evident commitment of the partners. The work involved is demanding, requires considerable leadership and diplomatic skill, and inevitably adds greatly to the burden carried by senior leaders. These challenges should never be underestimated.
- In our opinion, the proposal is well thought through. The senior leaders have a good grasp of the issues, are engaging with them thoughtfully and imaginatively, and demonstrate a high degree of commitment.
- They are also very clear where the main challenges lie.
- The leaders appear to be working together very effectively. Their presentation to us was impressive in the way that successive interventions moved the discussion forward constructively and seamlessly.
- They have settled the critical issue of leadership for the duration of the merger process; have done a commendable amount of preparatory work; and have begun in many areas to 'act as one' already.
- A strong momentum has been established. They are driving forward without waiting for the legislation, even though the inevitable uncertainty that will remain until the legislation emerges in final form represents a risk to them.

- Strengths include:
  - common IT systems;
  - legal frameworks including contracts;
  - common QA processes;
  - understanding of the importance of managing the cultural dimension of the merger process as well as the structural considerations;
  - level of engagement with the local region as well as international collaborations; and
  - a joint Graduate Research School, to mention only one of a range of joint activities, already in place.

- Challenges include:

- How well the existing staff profile meets the needs of a future internationally regarded TU, and how the necessary transition is managed – including maintaining the existing high level of commitment to teaching across the level 6-10 range and developing the research leadership needed for full realisation of the TU potential.
- Further developing the mission statement.
- Crystallising the organisational design.
- The possibility that, in practice, income streams can't be diversified as quickly as current projections imply, especially if the economy doesn't grow fast enough.

B. Advice, in the event of credible/realisable proposal

To the HEA

- Recognising the value of speed in minimising overall cost and maximising benefit, encourage the partners to press forward with all due speed.
- Consider the scope for assisting with staff restructuring and other transition costs, on the basis that it's best, for morale and for cost-effectiveness, and in the interests of the students, to make the transition as quickly as possible.
- Encourage the proposers to extend further their existing process of 'acting as one', in order to maintain progress, minimise transition costs, and maximise benefits.
- Consider the scope for supporting a leadership development programme.

- Offer support in government channels for progressing any HR issues that might reach wider prominence, not least by helping to promote the value to Ireland of the mergers and TU designation.
- During the transition period to TU status, assist where possible with relaxing the constraints of the Employment Control Framework.
- Agree a process for determining professional equivalence to the PhD, which needs to be done in a tailored way, reflecting the specific characteristics and requirements of each post/discipline area.
- Consider the implications of integrating the new and distinctive class of professors at TUs into the existing pay framework.

- Work with other arms of government to explore sources for a modest investment to boost the research capacity of the new TU. This should be seen as an investment designed to accelerate, eg, new high level appointments that, in turn, should generate new income to at least the level of the investment made within a few years. Is there scope for help from, for example, within the Priorities for the use of Ireland's EU Structural Funds (see Welsh example, above), or from other sources?

- Similarly, explore the scope for any further PhD studentships funded jointly by government and employers, with students co-supervised by the TU and the employer, along the lines of an existing scheme that we understand is run by the Irish Research Council.

- Consider with the Department the proposition that the Minister be invited to take account of the TU's competency framework in appointing the two Ministerial nominees to the governing body.

- Finally, we wish to observe that, in our experience, this has been to date a thorough and searching process for developing Technological Universities in Ireland. As matters move forward, the HEA will need to keep progress under continual review.

To the proposers
- We advise further thought about the new Mission and what it implies for the distinctive nature of the new TU's provision. In this regard:
  - Use (à la John Davies report) existing strength in Arts/Humanities as a distinctive feature.
  - Emphasise the user-led orientation.
  - Seek the best available international advice on the Digital Campus concept, in order to aim at being a leading edge institution in this respect.

- Extend further the existing process of 'acting as one', in order to maintain progress, minimise transition costs, and maximise benefits.
  - Don't let the discussion about organisation go on too long. There is never a perfect, or universally acceptable, solution.
  - Consider whether there is any scope, in occupying DIT's new campus, to begin even now a wider process of integration of activity from all three partners.

- Manage carefully the process of appointing the post-merger President such that the appointee will be very clear, in the light of the changes that by then the staff and students will have experienced, what style of leadership the Governing Body expects in the immediate future.

- Although leadership is good, consider the scope for further professional development to support effective university leadership (eg, via the UK Leadership Foundation for Higher Education).

- Continue with a high level of communication and engagement with staff, students and external stakeholders throughout the process.

- Be alert to the possibility that, in practice, it might not prove possible to diversify income streams as quickly as current projections imply, especially if the economy doesn't grow fast enough. Continue to work actively on proposals to develop new income streams.
- With respect to seeking increased funding for research and research students, consider carefully how to link this search to the development of their research profile (eg, seek research students only in areas of strong research activity, perhaps develop new areas via Masters' programmes before extending to PhD), which should help with funding of studentships.

- We recommend continued working to further strengthen international partnerships, partly to facilitate staff and student exchanges and research, and also to provide a comparator base of institutions with similar missions for benchmarking and performance improvement.
    - As part of the above, consider the scope to further internationalise the staff, including leaders.

- This proposal already has very good momentum. It is important now to maintain and strengthen it.

Appendix 1 Meetings with Representatives

Higher Education Authority

Mr John Hennessy (HEA Chair)
Mr Tom Boland (Chief Executive)
Mr Fergal Costello
Ms Mary Armstrong
Ms Sarah Fitzgerald

Quality and Qualifications Ireland

Dr Padraig Walsh (Chief Executive)
Ms Karena Maguire

Technological University For Dublin Proposers

Name	Title
Mr. Michael Kelly	Chair, TU4Dublin Steering Group
Professor Tom Collins	Chair, Governing Body (DIT & ITB)
Professor Brian Norton	President, DIT
Dr. Mary Meaney	President, ITB
Mr. Tom Stone	President, ITT
Dr. Mike Murphy	Co-ordinator TU4Dublin Implementation Group
Dr. Mary McNamara	Head of Graduate Research, DIT
Mr. Pat O'Donnell	TU4Dublin Support Team
Dr. Diarmuid O'Callaghan	TU4Dublin Support Team

Appendix 2 Panel Biographies

Lauritz B. Holm-Nielsen

Lauritz B. Holm-Nielsen is The Executive Director of Sino-Danish Center as well as Special Advisor to the Senior Management at Aarhus University (AU). He was the Rector of Aarhus University from 2005-2013. He is President of Euroscience, Vice President of the European University Association (EUA), and member of the Gothenburg University Board. Furthermore, Lauritz B. Holm-Nielsen was member of the Danish Prime Minister's Growth Forum, Vice-Chairman og Universities Denmark, member of the Africa Commission, Vice-Chairman of the Danish Research Commission, member of several OECD expert review teams on higher education, Chairman of the Nordic University Association, Board Member of the Danish National Research Foundation, Rector of the Danish Research Academy, Chairman of the Danish Natural Science Research Council and the Danish Council for Development Research.

Lauritz B. Holm-Nielsen has a degree in botany from AU (1971) and was Dean of the Faculty of Science at AU (1976-79) before he became professor at P. Universidad Católica, Quito, Ecuador (1979-81). Lauritz B. Holm-Nielsen has spent 18 years working abroad, 12 of these at the World Bank in Washington D.C. (1993-2005). Lauritz B. Holm-Nielsen is Commander of the Order of Dannebrog & Gran Oficial del Orden Gabriela Mistral (Grand Officer), Chile.

Kay Harman

Professor Kay Harman is one of the foremost international experts and authors on the subject of higher education institutional mergers. She has also published significant work on higher education and research policy, academic culture and work, researcher-industry links, technology and knowledge transfer, research training, and doctoral education, the professional development of university managers and new researchers, public sector management and leadership, and research methods in education and management. She has acted as consultant to the World Bank, the Asian Development Bank, the South African Government National Research Foundation amongst other international consultancies, on research policy and on higher education landscape reconfiguration including mergers.

Following her period as inaugural Dean of Graduate Studies (2005-2009) and her retirement in February 2010, Kay Harman was appointed as an Adjunct Professor in the University of New England Business School, in Australia. She continues to supervise higher degree research students and engage in research and consultancy work, was a member of one of the School's research centres, the Centre for Higher Education Management and Policy - CHEMP, and was the Co-ordinator of the Australian Network for Higher Education Policy Research (ANHEPR). She is also an Honorary Fellow of the Australian Council for Educational Leaders (ACEL).

Philip Gummett

Philip Gummett's first degree was in Chemistry. He moved into the newly emerging field of science and technology policy studies at Manchester University, UK, heading

both the Department of Science and Technology Policy and later the Department of Government, and becoming Professor of Government and Technology Policy. He taught a range of undergraduate programmes and developed graduate and research specialisms in UK science policy and in relations between defence and civil technologies, on which he led a 12 nation, mainly European, research group, and published widely.

He then became a Pro-Vice Chancellor at Manchester, before moving to the Higher Education Funding Council for Wales, of which he was chief executive from 2003 until retiring in 2012. A key agenda item during that period was restructuring the Welsh university system, where the initial thirteen institutions are now eight. He is a trustee of JISC, the body that provides digital infrastructure, resources and advice across all UK universities and colleges, and is a consultant on higher education.

Appendix 3 Process and criteria for designation as a technological university

Introduction
The National Strategy for Higher Education provides for the establishment of a new type of university – a technological university. A technological university will have a systematic focus on the preparation of graduates for complex professional roles in a changing technological world. It will advance knowledge through research and scholarship and disseminate this knowledge to meet the needs of society and enterprise. It shall have particular regard to the needs of the region in which the university is located.

For the purposes of determining whether an application for designation as a technological university should be approved, the HEA shall appoint international panels of experts (referred to as "Expert Panels") to advise the Authority in respect of Stages 3 and 4 of the designation process outlined in this memorandum. In conducting their evaluation, the Expert Panels will carry out such site visits and reviews and be given access to information from the applicant institution as they consider appropriate.

The designation process will consist of four stages as follows –
- an expression of interest,
- the preparation of a plan to meet the criteria,
- an evaluation of the plan, and
- an application for designation.

Stage 1 - Expression of Interest
Higher education institutions in Ireland wishing to apply for designation as a technological university must submit an expression of interest to the Higher Education Authority. The expression of interest must state, *inter alia*, how the transition from the institutions' current status to final designation will be financed. The expression of interest will be considered by the HEA in the context of a system wide analysis of Ireland's higher education needs and the strategic implications arising from the establishment of a new university. The HEA will, having considered the system level implications of the proposal, advise, within a reasonable period (no longer than six months), as to whether or not the proposal may proceed to the next stage.

Stage 2 - Preparation of Plan to Meet Criteria
At this stage a plan will be prepared by the applicant, addressing how it is proposed to meet the criteria for a technological university and the process requirements and related timelines.

The establishment of a technological university requires the consolidation of two or more institutions. Accordingly, the plan must be based on a legally binding memorandum of understanding between a consortium of existing institutions describing their consolidation into a new single institution, which has been approved by the Governing Body of each institution.

The plan must demonstrate that legally binding academic and administrative arrangements are in place to ensure that national and regional needs for graduates at higher education Levels 6 and 7 on the National Framework of Qualifications are met.

Stage 3 - Evaluation of Plan
The plan will be assessed by an Expert Panel which will have regard to -

- the capacity of the proposed consortium to achieve the objectives of consolidation in terms of academic rationale, scale, the degree of integration through alliances and membership of clusters and the extent to which workplace practices have been developed to bring them into line with those of a modern university, and
- the existing position of the proposed consortium in relation to each of the technological university designation criteria (Appendix 1) and its capacity, based on its developmental trajectory, to meet these criteria within a reasonable timeframe.

A decision will be provided by the HEA to the applicant within six months of receipt of the plan. If, in the opinion of this Expert Panel, the proposal is not likely to meet the criteria for designation as a technological university within the proposed timeframe the application will not proceed further. In that case, a further application will not be accepted for a period of five years. If the Panel is of the view that the plan presented represents a credible and realisable proposal, the Panel may provide advice to the applicant or the HEA on any matter relating to its implementation.

Stage 4 - Application for Designation as a Technological University
Where a legal consolidation has been achieved and the applicant considers that all other requirements for designation have been met, the applicant may apply for designation as a technological university. The application for designation will be evaluated by an Expert Panel. In carrying out that evaluation, this Panel will have regard to the criteria set out in Appendix A, the legal and administrative requirements applying to universities in Ireland, the configuration of institutions within the Irish higher education system, the characteristics of technological universities internationally, detailed statistical profile data on Irish higher education institutions and the overall merits of the application.

This Expert Panel will report its recommendation to the HEA which will consider the report and advise the Minister for Education and Skills.

Appendix 4 Criteria for a Technological University

1 Mission

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

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

2 Institutional Profile

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

3 Student Profile

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

3.2 At the time of application for designation as a technological university –
- enrolment in the applicant institution in research programmes at Levels 9-10 will not be less than 4% of FTE enrolments at levels 8 to 10. In addition, the application must evidence a developmental trajectory, showing that the institution will raise these enrolments to 7% within a period of ten years from the date of designation. Level 10 provision will be concentrated in a small number of fields/departments which have the capacity and credibility to offer this level of study and training to the level set by the national PhD standard;

- a combined minimum of 30% of all students in the applicant institution will be lifelong learning students enrolled on professional focused programmes and industry up-skilling, including part-time, work-related programmes and work-study programmes and/or mature learners.

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

4   Staff Profile

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

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

4.2 At the time of application for designation –
- 90% of full time, academic staff engaged in delivering higher education programmes in the applicant institution will hold a Level 9 qualification or higher.

- at least 45% per cent of full time, higher education, academic staff, will hold a Level 10 qualification or the equivalence in professional experience, combined with a terminal degree appropriate to their profession. The proportion of such staff that hold an equivalence in professional experience shall not exceed 10% of full time, higher education, academic staff. There will be demonstrable evidence of a developmental trajectory that shows the capacity, including staff with equivalence in professional experience as referred to, to increase and reach levels consistent with other Irish universities but not less than 65% within ten years of designation. These staff will not only hold Level 10 qualifications or equivalent in professional

experience, but also be able to demonstrate sustained activity in relevant areas of research and development.

- in the fields of knowledge/study in which doctoral level training and research is on-going, the proportion of staff holding Level 10 qualifications will be in excess of 80%. As a general principle, only those with Level 10 qualifications will be engaged in the delivery and supervision of Level 9 programmes. Only those with Level 10 qualifications and with a sustained record of research publications and mission-appropriate research outputs will be engaged in the delivery and supervision of Level 10 programmes.

5 Teaching, Learning and Curriculum Development

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

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

6 Research

6.1 The research dimension of a technological university will-

- Focus on applied, problem-oriented research and social and technological development and innovation, with direct social and economic impacts and public and private benefits in the region in which the university is located;
- Support and sustain research activity among its staff that can be compared to appropriate international benchmarks. Such benchmarks will include *inter alia* evidence of cooperative research groups of a viable scale, success in winning competitive research funding nationally and internationally and inter-institutional research collaboration;
- In linking research to teaching, demonstrate methodological approaches to the formation of level 10 knowledge, skills and competencies that are appropriate to the institution's research mission and meet national PhD level standards. This will be through the integration of practice-led, professional, and industrial doctorate structures alongside more traditional PI-led approaches, all within the context of national policy for structured PhD provision.

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

- have existing research capacity to support on-going programmes, projects and doctoral training in at least three fields of knowledge/study as defined by ISCED fields of study at the 2-digit level (ISCED2 – "Narrow fields"); [1] and
- demonstrate a developmental trajectory showing that the institution can extend research and doctoral activity to sufficient capacity to support two further fields, as defined by ISCED2 within five years of designation as a technological university.

7 International Profile

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

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

8 Leadership, Management and Governance

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

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[1] ISCED codes are outlined on the HEA website at
http://www.hea.ie/files/files/file/statistics/SRS%20User%20Files/EurostatISCED.pdf