

Institiúid Teicneolaíochta Cheatharlach



INSTITUTE *of*
TECHNOLOGY
CARLOW

At the Heart of South Leinster

Institute of Technology Carlow
Self-Evaluation Report
Strategic Dialogue Cycle 3

Submission to the Higher Education Authority
28th June 2016



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2030 VISION

*"To be Ireland's Leading Technological University,
Inspiring Individuals - Transforming Society"*

Institute of Technology Carlow
Strategic Plan 2014-2018

GENERAL INTRODUCTION AND STRATEGIC CONTEXT

Institute of Technology Carlow is a values-led organisation which puts the *Learner Experience* at the centre of its values system, underpinned by the core values of the *Achievement of Excellence, Connectedness, Knowledge, Creativity & Innovation, and Ethics* (*Strategic Plan 2014-2018*, <http://www.itcarlow.ie/resources/strategic-plan.htm>).

Engage, Learn, Challenge and Innovate represent the pillars of the mission of Institute of Technology Carlow articulated in the Institute's *Strategic Plan 2014-2018*. These pillars inform the overarching principles under which the mission, strategies and operations of the Institute are aligned and they also frame this compact review.

Current Irish higher education policy has clearly identified diversity as a key indicator associated with positive system performance. Fostering diversity is an important structural strategy that can be used to meet both student and labour market needs. It can enhance social mobility, allow for the combination of elite and mass education systems, increase the level of effectiveness of individual institutions and provide opportunities for experimenting with innovation.

In an ever changing Irish higher education landscape, Institute of Technology Carlow has emerged to assert its position as a strong, progressive and ambitious institute with a clear focus on designation as Technological University and the delivery of step changes in higher education provision. These step changes will deliver a new higher educational paradigm, an institution that will be quite distinct from other current institutional types that currently exist in the sector and this will give it a strong national and international identity.

Our Vision Statement for the South East Technological University and Implementation Framework, 2015 (<http://www.itcarlow.ie/resources.htm>)

has been informed by an analysis of leading international Technological Universities, multi-campus international HEIs, the unique national and regional context for a South East Technological University and is cognisant of U-Multirank methodology.

A defining and widely recognised characteristic of the South East, which continues to challenge its movement towards a higher level of performance, is that unlike other regions, it does not have a dominant urban centre driving economic activity across the region. It is instead composed of a number of urban centres spread across the counties of the South East. Indeed this was one of seven unique challenges highlighted by Michael Kelly in his report to the Minister in mid-2015 for the delivery of a South East Technological University through the consolidation of the two South East Institutes of Technology in Waterford and Carlow (Section 7. Institutional Consolidation).

For this and other reasons, we envision the new University for the South East as a 'connected' and embedded multi-campus Technological University, configured to deliver greater unity and direction across the region, while also acting as a counterweight to the national powerhouse of Dublin and further promoting regional development.

We define a 'connected' University as one designed to deliver an integrated and responsive provision that proactively engages and collaborates with partners in a structured, systematic and strategic manner and possessing the following characteristics:

- A culture of engagement and innovation with no discernible barriers between campuses and the community;
- An education continuum in which we interact with our learners, researchers and collaborative partners throughout their lifetimes, empowering them to respond to changing goals and needs;
- An academic community that transcends traditional disciplinary boundaries allowing the generation of new cross-disciplinary ideas not possible in more traditional faculty settings;
- A focal point for leadership, innovation and policy direction connecting the South East internally and externally for maximum economic and social impact.

Achieving the 2030 Vision of being '*Ireland's leading Technological University*' under current national policy is not an insignificant challenge. However, it is rare that an organisation gets an opportunity to play a lead role in a higher education project of such enormous potential and significance for a region. We believe that it is incumbent on us to give this opportunity our full attention, support and every chance to succeed in partnership with Waterford Institute of Technology (see Section 7. Institutional Consolidation).

In June 2016, an investment of €1.5m in the South East Technological University Project was announced by the HEA following a joint application by Carlow and Waterford Institutes of Technology for funding to the Authority. This followed on from a decision in early 2016 of the Governing Bodies of the two Institutes of Technology to recommence discussions on the creation of a Technological University of the South East. The investment was welcomed by both Institutes and will enable the development and implementation of an action plan to lead to Technological University.

Within this context, the Institute continues to make significant progress towards meeting national criteria for Technological University designation as is apparent throughout this compact review, and evidenced by more detailed trends and benchmarked analyses presented in Appendices 2-7. These are:

- Trends and Benchmarking of the Learner Profile and Graduate Destinations (Appendix 2).
- The Irish Survey of Student Engagement 2014-2016 – Benchmarking with the Irish and UK Higher Education System (Appendix 3).
- Higher Education Student Activity and Sport Study Ireland (Appendix 4)
- Enhancement of Research and Innovation Capacity (Appendix 5)
- Enhanced Internationalisation (Appendix 6).
- Resourcing and Environmental Context (Appendix 7).

It is significant that this review shows that not only have the vast majority of compact targets been achieved by Institute of Technology Carlow for 2015, but many have been exceeded. A broad and inclusive institutional mid-term strategic review is currently underway with stakeholders to further stretch institutional performance and accelerate progression towards its 2030 vision.

STRATEGIC DIALOGUE CYCLE 3

On the 19th February 2016 the HEA confirmed that Institute of Technology Carlow had been placed in Category 1 for agreed 2014 targets following Strategic Dialogue Cycle 2 (SDC2). Category 1 is defined as '*...HEIs which, overall, have performed well against their objectives and have demonstrated excellence in some mission-critical domains*'. A copy of Institute of Technology Carlow's SDC2 Assessment of Performance was included in the feedback (Appendix 1). Specific aspects of overall performance pertaining to Institute of Technology Carlow contained within the feedback documentation are as follows:

- *A strong self-evaluation report demonstrating significant progress in implementing compact objectives and alignment of this process with institution level strategic planning;*
- *A strategic and coherent review of performance including evidence of self-reflection on past performance and identification of future issues/risks arising;*
- *The careful use of quality measures and review to ensure a high quality student experience is an important feature of the institution's offer;*
- *Growing researcher numbers and research income is challenging for all HEIs and should be carefully monitored;*
- *Further use of benchmarking to demonstrate that the level of institutional ambition is appropriate should be expanded;*
- *Again the alignment of the strategic dialogue process with the broader strategic planning and risk management structures of the institution is welcomed.*

The self-evaluation report, and subsequent discussion at the bilateral meeting, have demonstrated good progress at year end 2014. Progress under strategic dialogue feeds into wider institutional planning processes such as the mid-term review of the strategic plan in 2016. The institution can

demonstrate growth in student numbers and delivery of capital projects to meet student demand. The institution indicates that several quality measures are in place to ensure a high quality student experience including an extended academic calendar and recruitment of high-level academics from other institutions, on a part-time basis, to meet teaching requirements. Growth in researcher numbers and income will continue to be a challenge however. The HEA will keep student number growth under review by means of engagement with QQI in relation to the institutional quality reviews they conduct. Overall this is a very good submission and analysis. This places the institution in category 1 and it is therefore proposed to release performance funding in full in respect of the 2016 budget allocation.

Institute of Technology Carlow welcomes these findings and continues to build on the progress already made within the context of its strategic planning, review and enhancement processes. These are summarised in Figure 1.1 and provide further context for the Strategic Dialogue Cycle 3 (SDC3) process for agreed 2015 targets.

Following the 2014 review under SDC2, additional strategic planning developments in 2015 includes publication of Institute of Technology Carlow's *Vision Statement for the South East Technological University and Implementation Framework* (February 2015, www.itcarlow.ie/resources.htm). This additional strategy statement complements *Institute of Technology Carlow's Strategic Plan 2014-2018* (<http://www.itcarlow.ie/resources/strategic-plan.htm>) and was approved by Governing Body in February 2015 as part of a process in the South East culminating in a report to the Minister for Education and Skills in July 2015 on the *Engagement and Consultation Process on a Technological University for the South East* (Michael Kelly report

- <http://www.education.ie/en/Publications/Education-Reports/Engagement-and-Consultation-Process-on-a-Technological-University-for-the-South-East.pdf>).

In parallel, and consistent with Institute of Technology Carlow's quality assurance and enhancement framework for the monitoring, validation and enhancement of Institute wide performance (www.itcarlow.ie/resources/quality.htm), the following has also been implemented:

- A Stage 1 Quinquennial Review (September 2014 - June 2015) across all Faculties, Centres and Campuses. These Stage 1 Reviews are also referred to as *5-Year Strategic Reviews* and the 2015 outcomes reported by external expert panels following site visits can be accessed at www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm.
- A Stage 2 Quinquennial Review (September 2015-June 2016) across all Faculties, Centres and Campuses. These Stage 2 Reviews are also referred to as *5-Year Programmatic Reviews*. Following recent site visits by external expert panels (May and June 2016), the resultant reports are now being finalised with the Chairs of the panels and will be published later in 2016.
- A series of reviews across all *Institute of Technology Carlow Professional Support Services* commencing with the *Library & Information Technology Services Review* (external expert review and site visits, June 2016).
- Other related reviews on, for example, collaborative and transnational provision, joint awards, delegation of awarding authority and research which can be accessed at www.itcarlow.ie/resources/quality/quality-policies-procedures.htm.

Institute of Technology Carlow is committed to maintaining the highest quality of provision across all of its activities and central to this is regular and ongoing self-evaluation of its goals, targets and strategies. In this

Figure 1.1

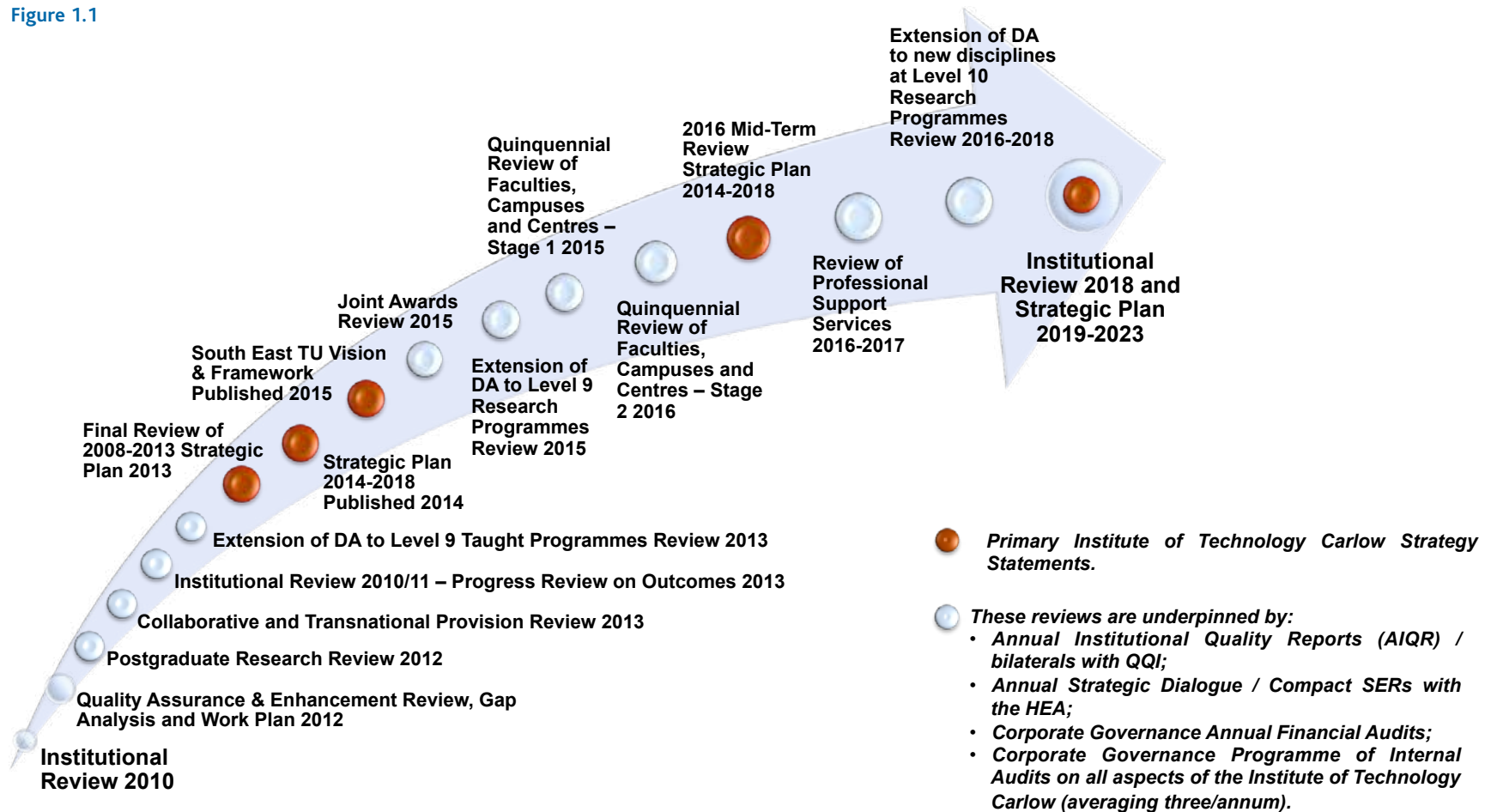


Figure 1.1 Overview of Institute of Technology Carlow's strategic planning, review and quality enhancement initiatives and milestones. The Institute's *Strategic Plan 2014-2018* and the Institute's *Vision Statement for the South East Technological University and Implementation Framework (2015)* can be found at <http://www.itcarlow.ie/resources/strategic-plan.htm> and <http://www.itcarlow.ie/resources.htm>, respectively. The most recent Institute of Technology AIQR (Annual Institutional Quality Report, February 2015) can be accessed at www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm

context the Institute is undergoing a mid-term review of its Strategic Plan (2014-2018) in 2016 that, taken in conjunction with its compact agreements, cluster arrangements and university designation ambitions, will ensure continued sustainable and well balanced high quality growth and development. Stakeholder consultation workshops, led by the President, have been underway since April 2016 and will continue to September 2016. Under this review the Institute is prioritising consideration of the following matters:

- Designation as a Technological University. While there is currently some ongoing uncertainty on the process, criteria and legislation involved in such a designation, the broad parameters for an internationally credible Technological University are indisputable. This interim review gives the Institute an opportunity to review progress to-date on its trajectory towards meeting Technological University criteria and establish further plans that builds on the considerable achievements evident to-date
- National strategy and policies for higher education have continued to evolve since publication of the current plan. While these have been addressed through the processes summarised above and in Figure 1.1, it is timely to formally acknowledge those parts of the original plan which are now redundant, and to modify and publish the outcomes of the review designed to address the new challenges and opportunities.
- HEA's new funding model includes a performance-based component that is aligned with institutional strategy. While the Institute has performed well under the first formal allocations under this new model (SDC2), it is important that this achievement be secured for the future.
- National demographic changes are increasingly evident in the Institute's primary catchment area. The Institute's most recent projections to the HEA (Institute of Technology Carlow Operational Report / Budget 2016, March 2016) currently propose an increase in the total learner population to approximately 9,300 which represents a further overall increase in

total enrolments of 31% by 2019/2020. These projections are grounded in published statistics from the DOES and the CSO (Table 7.1 and Figure 7.1, Appendix 7). Their realisation will ensure maintenance of the Institute's current market share of full-time and lifelong learners, whilst responding to the increased demand for higher education opportunities accompanying the significant population growth in the South East, Mid-East and GDA regions (the primary catchment areas for the Institute). Clearly this further growth must be resourced by investment in capital and staffing levels, further development of the organisational structure to support and further enable its transition to a larger more complex organisation, and aligned to learner, regional and national needs.

In correspondence to all HEIs on the 23rd May 2016 the HEA outlined the following four general requirements for SDC3:

- Self-Evaluation Report Year End 2015
- Response to General Feedback to all HEIs following SDC1 and SDC2
- Response to Transition Agenda, Retention Initiatives and Workload Management
- Response to Specific Ongoing and Evolving Policy Priorities

Institute of Technology Carlow's response to these requirements is presented in the following sections of the completed HEA-provided template and supplemented by further commentary in Tables 1.1 to 1.4 in Appendix 1.

OVERVIEW OF INSTITUTE OF TECHNOLOGY CARLOW'S PERFORMANCE OVER THE SDC3 2015 TIMEFRAME

The purpose of the Strategic Plan 20014-2018 was to articulate

'....the passion, drive and commitment of all to achieve the mission, vision and goals for the greater good of our region and country. It will guide us in the coming years as we steer a true and steady course for the Institute.'

That this expectation continues to be met is evident from the progress reported for 2015 under SDC3 and is a testament to: the ongoing commitment of Governing Body, Academic Council, the Executive and Management Teams and all staff of Institute of Technology Carlow to achieving the mission of the Institute in challenging times; the talent and determination of our learners and graduates to succeed; and the invaluable support from a broad range of external stakeholders and collaborative partners. Some particular achievements are highlighted below.

Learner Profile and Graduate Destinations

The fulltime and part-time learner cohort at Institute of Technology Carlow continues to grow and now exceeds 7000 learners pursuing level 6 to level 10 qualifications on the NFQ (2015/2016). This represents an 11% and 13.6% increase from 2014/15 to 2015/16 for learner headcount and whole time equivalents, respectively (Figure 2.1, Appendix 2).

The Institute continues to maintain its position as the fourth largest of the 14 Institutes of Technology for learner enrolments, with the highest % WTE lifelong learners (Figure 2.11, Appendix 2) and the second highest % postgraduate learners (research and taught) in the sector (HEA statistics for 2014/2015, Appendix 2, Figures 2.17-2.20).

Fulltime learners pursuing STEM programmes continues to increase with an overall 20.6% increase in 2015/16 since 2014/15 (Figure 2.21, Appendix 2). This brings the cumulative increase in STEM to 44.8% since 2011/12 at Institute of Technology Carlow. The increase reflects the strategic focus of the Institute on the technological needs of the economy, exemplified by the need to address the well-publicised skills deficit in ICT graduates. Taking this specific sectoral example, the Institute has one of the highest % ICT learners in higher education at 12.5% of the fulltime student body (2014/2015) through its current provision in software development, games development and systems management (Figure 2.28-2.29, Appendix 2). Additional provision was put in place during 2015 with the development and introduction of a new fulltime BSc (Hons) in Cybercrime and IT Security for 2016 intake. This is consistent with the IDA's focus on promoting Ireland internationally as a Cybersecurity hub, while meeting the current talent gap in the national digital economy which provides employment for over 100,000.

The Institute has had significant success under Springboard 2014/15 and 2015/16 (Tables 2.3 and 2.4; Figures 2.24-2.26, Appendix 2) and this is set to continue under Springboard 2016+ (Table 2.5 and Figure 2.27, Appendix 2). A new MSc in Data Science developed in 2015 is amongst the 11 programmes supported by HEA Springboard 2016+ (Table 2.5, Appendix 2).

There has also been positive developments for Institute of Technology Carlow 2015 graduates with a continuing upward trend in graduates gaining employment (Figure 2.5, Appendix 2). In particular, 83.6% and 93.5% of level 8 and level 9 Institute of Technology Carlow 2015 Graduates, respectively, were in employment. This compares to 58% and 78% for the equivalent cohorts across the Irish higher education.

Staff Qualifications Profile

The Institute is committed to delivering a Technological University and this will only be achieved through the talent, creativity and commitment to excellence of all staff. The Institute continues to prioritise the attraction, development and retention of the best intellectual capacity available.

In recruiting academic staff the emphasis continues to be on attracting appropriate Level 10 qualifications and other terminal professional qualifications, coupled with the skills and attributes of excellent teachers who are learner-centred, research active and professionally committed to working collaboratively with external agencies and employers. Institute professional support staff are selected for their qualifications and practice in their field.

In the current academic year (2015/2016), 98% of fulltime academic staff at Institute of Technology Carlow hold a Masters / Doctoral qualification or equivalent (up from 83% in January 2012). Since January 2012, there has been an increase in academic staff with doctoral qualifications from 18% to 31%, while the introduction of additional targeted supports for staff development has resulted in an increase in academic staff pursuing doctoral studies, from 2.6% to 16.8%. Collectively these developments place the Institute on a strong trajectory to achieve national Technological University criteria on staff qualifications.

Research and Knowledge Exchange

The Institute's goal to meet and exceed national Technological University criteria within the next three years is underpinned by ongoing strategic investment in institutional infrastructure, personnel and policy

developments that have been designed to accelerate progress towards meeting ambitious targets for research and knowledge exchange. These are shaped by:

- Established institutional strengths, closely aligned to National and European priorities and
- The Institute's values and integrated vision for 'knowledge in action', embracing the wider teaching and regional engagement mission, embedded across all disciplines and award levels, and ultimately focused on the generation of innovation, creation of opportunity and the building of value in the regional economy.

Progress on the latter is being achieved on a structured and systematic manner across the institution following the Institute-wide Stage 1 (Strategic) and Stage 2 (Programmatic) Quinquennial Reviews, and are supported by ongoing advancements in human / intellectual and physical infrastructural capabilities that are described in more detail in Section 4 of this SER and in Appendix 5.

Within this broader context, specific indices in 2015 relevant to SDC3 include (Section 4 and Appendix 5):

- The ongoing achievement of postgraduate researcher and KTI / Research Citation targets originally established under SDC1.
- Development of new structured postgraduate programmes for masters and doctoral candidates for roll-out in 2016/2017.
- Advanced preparations for extension of level 10 provision in 2016/2017 via newly established national processes.
- Approval and support by Enterprise Ireland for an Institute of Technology Carlow Design+ Technology Gateway, linking and integrating institutional RDI activities for the benefit of industry with 12 other Technology Gateways

in Ireland. Design+ focuses design thinking capabilities on RDI programmes in ICT, Biosciences and Engineering technologies, and involves all five of Institute of Technology Carlow COREs (Centres of Research and Enterprise).

Capital Developments 2015

During 2015 Institute of Technology Carlow continued to deliver on its €100m physical master plan with the construction of the Haughton Teaching and Learning Facility. This will provide a high quality learning environment for approximately 1,000 learners and will be open for the 2016-17 intake (Figure 7.7, Appendix 7).

This follows on from:

- the opening of the Dargan Centre for Research and Innovation in 2014 (Figure 7.5, Appendix 7)
- the opening of the Centre for Aerospace Engineering in 2015 (Figure 7.6, Appendix 7).
- agreement with Kilkenny Carlow ETB to acquire an adjacent seven acre site (Figure 7.10, Appendix 7)
- agreement in 2015 to acquire 30 acres in Wexford to provide a purpose built campus (Figure 7.8, Appendix 7).

The Institute has also, as part of its masterplan in 2015, submitted a planning application for the development of a 30 acre €8m sports campus (Figure 7.9, Appendix 7) which will ensure that the Institute consolidates its position at the top level of responses on student facilities and engagement as evidenced by the recent *Higher Education Student Activity and Sport Study Ireland 2015* (Appendix 4).

With particular reference to the latter, over the past number of years Institute of Technology Carlow has established itself as a centre of sporting

excellence within the South East Region as a result of investment in state of the art sports facilities and a growing portfolio of elite sports programmes in conjunction with the National Governing Bodies. The progress made was recently confirmed by the *Student Activity and Sport Study Ireland* (SASSI) research commissioned by Student Sport Ireland (SSI) to investigate sports and physical activity participation, preferences and provision in Irish higher education institutions.

Across the 33 higher education institutions surveyed, Institute of Technology Carlow was rated in the top five institutions in all but one of the key performance indicators (Appendix 4), with participation in exercise amongst students being found to be significantly higher in Institute of Technology Carlow than elsewhere. The planned sports campus will address the outstanding KPI.

The high satisfaction ranking for sport exercise provision amongst learners, together with one of the highest participation rates in clubs and societies, strongly supports the Institute's transitions and retention priorities aimed at enhancing learner connectedness at Institute level as well as academic programme level.

The Institute has earmarked a five acre site to address the development of much needed student accommodation. This initiative is awaiting the borrowing framework for the Technological sector provided for in the 2006 legislation. Institute of Technology Carlow has a track record of strong financial management but due to the lack of the borrowing framework is currently unable to access available European Investment Bank funding which is now financing much of the University sector capital development programmes.

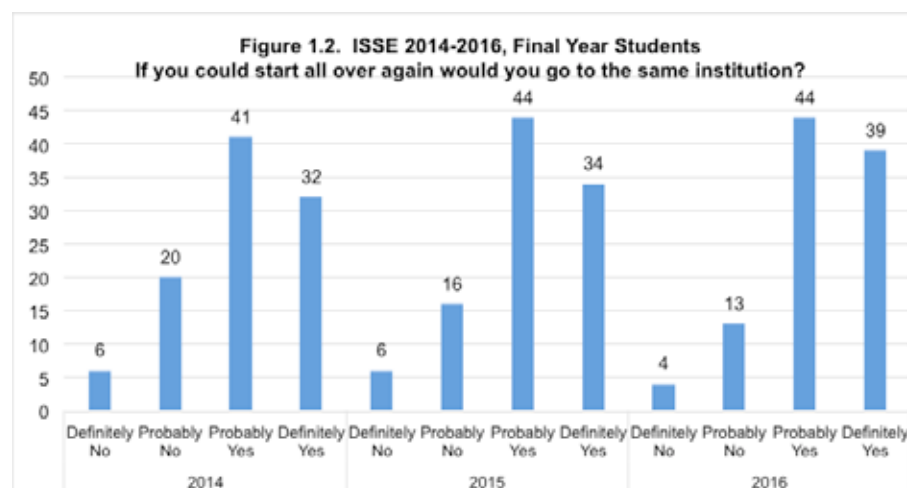
Student Engagement

An analysis of the Irish Survey of Student Engagement 2015 (Appendix 3) indicates many positive aspects of the student experience in Institute of Technology Carlow which re-affirms the progress made and the direction taken through the implementation of the Institute's strategic plan. In identifying key messages the following indicators are worth noting:

- The very high rate of completion of ISSE 2015 (36.6%) by Institute of Technology Carlow learners. This is driven by an Institute commitment to capture the learner voice and is reinforced by a communications process of outcomes and responses for learners.
- The Overall Indices show a consistently positive response from students as to how they view their engagement with Institute of Technology Carlow. These are more positive than responses reflected in the University and Technological sectors overall.
- Student satisfaction in Institute of Technology Carlow is most evident when reflecting on the career inspired nature of much of the learning and the focus on learning in the workplace. This is exactly what the Institute's strategy set out to achieve and it is core to what a Technological University will look like.
- Institute of Technology Carlow students benefit from good access to teaching staff and to timely responses, for example, in terms of marking assessments. Students at Institute of Technology Carlow rate their access to teaching staff and to timely response (for example, in terms of marking and assessment) as good, positive and beneficial. Learning support services are regarded as high quality and the overall learning environment is regarded as good.
- Students feel that they are expected to work hard and that they are stretched academically.
- In looking specifically at how first year, final year and postgraduates judged the quality of their entire educational experience, across the three annual engagement surveys (2014 -2016) there is a very definite trend

showing an increasingly positive response year on year. For example, in 2014 78% of postgraduate students judged their experience to be good or excellent; this figure increased to 86% in 2016. When the same groups were asked if "you could start over again would you go to the same institution", the responses showed very positive and an improving assessment. For example, in 2014 81% of first year students said they would probably or definitely repeat the experience; this figure increased to 88% in 2016 (Figure 1.2).

- While international comparators are difficult to find, the UK Engagement Survey 2014 provides some international perspective. 79% of respondents in Institute of Technology Carlow feel that they are required to think critically and analytically "quite a bit or very much". This compares with 81% for Irish universities and 82% for UK universities. In the Technological sector overall the figure is 73%.
- 53% of Institute of Technology Carlow students see their experience in the Institute as having "quite a bit, or very much" influence on them developing a personal code of values and ethics. The figures for the Irish Universities (49%) and Technological sector (47%) are somewhat lower.



Quinquennial Reviews

The SDC3 timeframe of 2015 spans the recently completed Stage 1 Quinquennial (Strategic) Reviews (September 2014 - June 2015) and the Stage 2 Quinquennial (Programmatic) Review (September 2015-June 2016) across all Faculties, Centres and Campuses, addressing the three strands of the Institute's mission – Teaching and Learning, Research and Innovation, and Engagement.

A sample of the commendations from external expert review panels arising from these reviews following site visits and meetings with both internal and external stakeholders is presented in Table 2.8, Appendix 2.

These comments strongly endorse the quality of the learner experience across all activities at Institute of Technology Carlow, underpinned by a demonstrable commitment to excellence, connectedness, knowledge, creativity, innovation and ethical behaviour. This is acknowledged by various external expert review panels:

"The Institute is to be commended on the high quality and articulateness of the students and their enthusiasm for the Institute and the accessibility of teaching staff and their supportiveness."

"Learners were highly complementary of their lecturers in terms of access and culture of openness, of the institute facilities available, student supports and postgraduate opportunities and industry engagement."

"The proactive learner centred approach was clearly evident and described glowingly by both ...staff and learners and this is to be commended."

"Facilities for the delivery of programmes including teaching space, library, IT and other specialised venues are of a very high standard."

"IT Carlow staff development and other support structures are impressive and accessible to all staff."

"The panel commend the high standard of teaching, learning, learner support, sports and research facilities in the Institute."

These commendations further acknowledge the significant development and enhancement of institutional research culture and focus, concluding that:

"The strategic investment in infrastructure, personnel and policy developments to support research in the Institute is admirable"

"The panel's overall conclusion was that the Institute had made excellent progress toward achieving its ambitious targets for research."



CONCLUDING COMMENTS

Institute of Technology Carlow has always had a core value of maintaining a financially stable organisation which is underpinned by a fundamental belief in achieving best value for money coupled with high quality outputs. The double imperative of high quality and efficiency has led to the development of a streamlined and effective organisation that has prioritised maximising the available discretionary resources to invest strategically in the enhancement of the learner experience in high quality staff, physical environment and other resources.

Within this context, Institute of Technology Carlow has been particularly challenged by a funding model for the Technological sector that has built-in historical inequities that, due to the recession and the financial vulnerability of other HEIs, could not be addressed in the climate of austerity (see Figure 7.11-Figure 7.13).

Nevertheless, Institute of Technology Carlow set as a priority its continued growth and development and identified as a strategic imperative the objective to create non-State additional revenue streams to support its strategic development. It has also maximised its deployment of staff by outsourcing select support services in order to maximise the academic resources available for student interaction. This approach has gone some way towards mitigating the effects of the ECF imposition of historical and inequitable targets which do not provide for demographic growth or the wider mission of the institution as defined under the *National Strategy for Higher Education to 2030* (Hunt, 2011).

The Institute is currently meeting the demands of the region with assistance from non-State funding revenue streams, but these are susceptible to market trends and are not a reliable foundation on which to build the future growth of

an institution. Institute of Technology Carlow will continue to develop diverse revenue streams and, in partnership with the HEA through equitable core funding provision and ECF targets, will deliver the mission of the institution and position it to deliver a Technological University for the South East.

Institute of Technology Carlow set itself ambitious challenging targets developed through a broad and inclusive strategic planning process that was informed by the *National Strategy for Higher Education to 2030* (Hunt 2011). The challenge for the organisation was to address the imperative to develop and grow across a wide range of strategic priority areas while at the same time to maintain and enhance a high level of quality of delivery in a demanding and resource-constrained environment. Institute of Technology Carlow has demonstrated, through its many reviews, the maintenance and enhancement of its quality provision, has accommodated significant increased learner participation through innovative and flexible provision, has responded to market and economic demands, and strategically managed to diversify its dependency on core state funding which has reduced from over 53% in 2009/10 to under 39% in 2014/15. Strategic management of priorities and resources has enabled the Institute to maintain growth during a period of recession through diversification and effective resource management and this has positioned the Institute to deliver a Technological University for the South East region. The Institute has not only achieved its compact targets for the year, it has exceeded on many fronts and will continue on this path until Technological University designation is a reality.

Dr Patricia Mulcahy
President

Institutional Profile: Institute of Technology Carlow
Profile 2017/18

STUDENT NUMBERS										
Entrants					Graduates					
New Entrants Year 1 (Full-time Undergraduate)				No.	Undergraduate Graduates				No.	
				1,505					2,250	
New Entrants Year 2+ (Full-time Undergraduate)				180	Postgraduate Graduates				350	
Enrolments										
					Full-time	Part-time	Remote			
					Total					
Other Enrolments (IoTs only)					No.	0	256	0	256	
FETAC Cert					No.			0		
FETAC Advanced Cert					No.		256	256		
of which are apprenticeships					No.		256	256		
Undergraduate					No.	4,445	2,210	0	6,655	
Foundation/Access					No.	20		20		
Diploma					No.			0		
Certificate					No.			0		
Higher Certificate					No.	384	353	737		
Ordinary Degree (L7)					No.	1,240	156	1,396		
Honours Degree (L8)					No.	2,821	1,171	3,992		
Occasional					No.		530	530		
Postgraduate					No.	500	190	690		
Postgrad Diploma					No.	60	12	72		
Postgrad Higher Diploma					No.	105	56	161		
Postgrad Certificate					No.	35	0	35		
Masters Taught (L9)					No.	200	100	300		
Masters Research (L9)					No.	72	6	78		
Doctorate (L10)					No.	28	4	32		
Occasional					No.		12	12		
Total UG and PG Enrolments					No.	4,945	2,400	0	7,345	
Research & Taught (L9/10)					FTE			355		
Research (L9/10)					FTE			105		
Research (L10)					FTE			30		
Other Enrolments (IoTs only)					%	0%	100%	0%	100%	
FETAC Cert					%	0%	0%	0%	0%	
FETAC Advanced Cert					%	0%	100%	100%	0%	
of which are apprenticeships					%	0%	100%	100%	0%	
Undergraduate					%	67%	33%	0%	0%	
Foundation/Access					%	100%	0%	0%	0%	
Diploma					%	0%	0%	0%	0%	
Certificate					%	0%	0%	0%	0%	
Higher Certificate					%	52%	48%	0%	0%	
Ordinary Degree (L7)					%	89%	11%	0%	0%	
Honours Degree (L8)					%	71%	29%	0%	0%	
Occasional					%	0%	100%	100%	0%	
Postgraduate					%	72%	28%	0%	0%	
Postgrad Diploma					%	83%	17%	0%	0%	
Postgrad Higher Diploma					%	65%	35%	0%	0%	
Postgrad Certificate					%	100%	0%	0%	0%	
Masters Taught (L9)					%	67%	33%	0%	0%	
Masters Research (L9)					%	92%	8%	0%	0%	
Doctorate (L10)					%	88%	13%	0%	0%	
Occasional					%	0%	100%	100%	0%	
Total UG and PG Enrolments					%	67%	33%	0%	0%	
Research & Taught (L9/10)					%	% FTE Honours Bach Degree L8 and All PG				
Research (L9/10)					%	% FTE Honours Bach Degree L8 and All PG				
Research (L10)					%	% FTE Honours Bach Degree L8 and All PG				

DISCIPLINARY MIX		
First Year Full-time Undergraduate New Entrants		
	No.	%
General Programmes and Qualifications		
Education		
Arts and Humanities	115	8%
Social Science, Journalism and Information	150	10%
Business, Administration and Law	150	10%
Natural Sciences, Mathematics and Statistics	130	9%
Information and Communication Technologies (ICT)	170	11%
Engineering, Manufacturing and Construction	210	14%
Agriculture, Forestry, Fisheries and Veterinary	40	3%
Health and Welfare	390	26%
Services	150	10%
Total	1,505	100%

DISCIPLINARY MIX		
Doctorate (All modes)		
	No.	%
General Programmes and Qualifications		
Education		
Arts and Humanities		
Social Science, Journalism and Information		
Business, Administration and Law		
Natural Sciences, Mathematics and Statistics	14	
Information and Communication Technologies (ICT)	6	
Engineering, Manufacturing and Construction	6	
Agriculture, Forestry, Fisheries and Veterinary		
Health and Welfare	6	
Services		
Total	32	

PARTICIPATION			
(% of Total Enrolments incl. Flexible Learning)	No.	%	
Flexible Learners (PT, Distance, E-Learning, In-Service)	2,400	33%	
	No.	%	
			Regional Intake (% of Full-time Enrolments)
			from the institution's county
			from the institution's county and bordering counties
			989
			3,900
(% of New Entrants)			
Mature Entrants Year 1 (Full-time Undergraduate)	331	22%	
Mature Entrants Year 2+ (Full-time Undergraduate)	36		
Estimate: Entrants with Disability (EAS)	48	3%	
Estimate: Entrants from Non-Manual, Semi- and Unskilled Socio-economic Backgrounds (EAS)	495	33%	
New Entrants in receipt of Any Grant	812	54%	
New Entrants in receipt of Top-up Grant	150	10%	
			Participants in Labour Market Activation (Springboard/LMA)
			140
			Students in receipt of the Fund for Students with Disabilities (% of Full-time UG & PG Enrolments)
			280

INTERNATIONALISATION				
International Students (Full-time)* (% of Full-time Enrolments)	No.	%		No.
EU	293	6%	Erasmus Students Incoming (excl. work placements)	122
Non-EU	18	0%	Erasmus Students Outgoing (excl. work placements)	22
	275	6%	Other Exchange Students	12
International Students (Part-time)* (% of Part-time Enrolments)	No.	%	Total no. of international (FT + PT + Erasmus Incoming) Students	535
EU	120	5%		
Non-EU	55	2%		
	65	3%		

* Note: international enrolments exclude exchange students

TEACHING AND LEARNING						
Non-Progression Rate from 1st to 2nd Year						
	Level 6	Level 7	Level 8		Level 6	Level 7
	%	%	%		%	%
Education				Engineering (excl. Civil)		78%
Healthcare	96%	94%	92%	Construction & related	68%	76%
Combined & Other Disciplines				Services	78%	80%
Soc. Sci., Business, Law, Arts, Humanities	72%	75%	79%	Computer Science	72%	76%
Science & Agriculture & Veterinary	78%	78%	84%	Total	75%	79%

RESEARCH AND KNOWLEDGE TRANSFER				
No. of Doctorate Graduates per 10 Academic Staff	No.		Licence agreements (institution - private industry)	No.
	0.4		Spin-out companies created	4
Priority Patent Applications	No.			3
Total Patents Granted	2			
Invention Disclosures	10			

STAFF		
	No.	%
Core Staff	390	100%
Academic Staff	253	65%
Support staff	137	35%
Contract Research & Specialist Staff	99	100%
Academic Staff	51	52%
Support staff	48	48%
Total Staff	489	100%
Total Academic	304	62%
Total Support	185	38%

FINANCIAL DATA	
	€ 000
Total Income	21,607
State Grants	17,868
Fees	
Exchequer	8,346
Non-Exchequer	12,395
Research Grants & Contracts	1,250
Other Income	2,489
Total Expenditure	42,112
Core - Pay	31,594
Core - Non-Pay	9,268
Research Grants & Contracts - Pay	412
Research Grants & Contracts - Non-Pay	838



1. REGIONAL CLUSTER

"We will pursue our goals in the context of the newly established Higher Education South Regional Cluster encompassing Institute of Technology Carlow, University College Cork, Institute of Technology Tralee, Waterford Institute of Technology and Cork Institute of Technology. We are committed to the agreed objectives of this Cluster focused on enhancing co-operation across the institutions in support of regional, economic, social and cultural development."

Institute of Technology Carlow
Strategic Plan 2014-2018

CONTEXT

The primary objectives of the South Regional Cluster are to:

- Increase the capacity and responsiveness of the Irish higher education system, particularly in the South Region;
- Deepen partnerships and collaborations among the cluster higher education institutions;
- Provide improved progression pathways between higher education institutions;
- Enhance co-operation across the cluster higher education institutions in support of regional economic, social and cultural development;
- Build on existing successes in the areas of course development, collaborative research, entrepreneurship and innovation.

Institute of Technology Carlow is committed to increasing its impact and contribution to the development of its region(s) and is mindful of the HEA's assessment of progress under SDC2.

The Institute further notes the HEA consultation document entitled *Discussion Document Regional Clusters: Maximising Collective Impact Strategy 2015-2020* also issued in November 2015, which deals with the larger issue of the future development of regional clusters. This consultation is still underway at the time of preparation of this SDC3 SER (June 2016). This acknowledges the scale and unique nature of the South Cluster.

Other relevant national developments in 2015 include:

- The development and launch of the Regional Action Plans for Jobs (APJ) and the establishment of Regional APJ Implementation Committees by the Department of Jobs, Enterprise and Innovation and
- The development and establishment of Regional Education and Training Provider Groups (RETPG), Regional Skills Fora (RSF) and Project Advisory Group (PAG) by the Department of Education and Skills.

Industry Champions have been appointed to lead implementation of the APJs and Regional Directors have been put in place to support the Industry Champions and APJ Implementation Committees. In parallel, RSF Managers have been appointed to support RETPG and RSF.

The relationship between the various structures (Clusters, APJ Committees and RSF) and their working groups is still evolving as efforts are made to align the priorities and activities of the various groups. Institute of Technology Carlow is actively involved in the South Cluster, South East RSF, South East APJ, and Mid-East APJ and their working groups. Other South Cluster partners are similarly committed within their regions. An early decision was made at Cluster level that each RSF (South East and South West) within the South Region would have representation on the other forum to ensure consistency of approach to achieving the national goals of the RSF programme and in support of the National Skills Strategy to 2025. These developments have necessitated a review of the original workplan/approach of the South Cluster.

For example, a mapping profile designed to improve student pathways across all education and training providers is now being developed by the Cluster through the implementation of the RSF in the South East and South West regions. The All Ireland Research Observatory in Maynooth University has

developed a project called 'Pathways to Higher Education'. A prototype online portal has been developed to help students see at a glance available access routes to higher education. This project was initiated through the Midlands, East and North Dublin (MEND) Cluster. It was decided at a meeting of national RSF representatives that this resource should be replicated nationally and that a subgroup would be established to progress implementation. Institute of Technology Carlow has worked with the HEA and QQI to collate all FET and HE awards offered in the South East. This work is also being done in the South West. The outcome of the project will be a comprehensive mapping of academic pathways across the cluster and the data will form part of a national 'Pathways to HE' portal.

Therefore while the regional cluster model is central to the achievement of the regional impact envisioned in the HEA's strategy, there are other national imperatives driving regional engagement and working through the Government-led Action Plans for Jobs and Regional Skills Fora structures has merit at this time in that it provides the opportunity to deliver a more immediate and identifiable impact at regional levels within the national context. Consequently, while all of the developments listed below have not at this stage been rolled out across the whole cluster region, they are significant in achieving the impact, benefits and system reorientation sought by the Cluster strategy.

Through the South Cluster, the Regional Skills Fora in both the South East and South West have made the following concurrent progress:

- The appointment of Regional Skills Forum managers.
- Mappings have been completed for each of the two regions for disciplines identified in partnership with industry and employer bodies, using relevant

data from SOLAS, and drawing on the full range of programme provision across higher and further education in each of the two regions.

- All partners in the South Cluster continue to expand and deepen their partnerships with further education providers. For example, Institute of Technology Carlow has established formal partnership agreements with 18 further education providers (7 of these are new agreements reached in 2015), across the South East and Mid-East regions in order to build stronger links with ETBs and to open up new, clear and attractive pathways for learners to enter higher education (having due consideration to their prior learning). The Institute has also established a Memorandum of Agreement with Laois Offaly ETB which now serves as a model for linking to other ETBs in promoting pathways, particularly in the STEM and ICT domains.
- At Cluster level it has been agreed that mechanisms be developed for ensuring the coordination of certain activities across the two regions, resulting in the embedding of staff from each region in both Skills Fora. This activity contributes significantly to the achievement of the objective to enhance cooperation across the institutions in support of regional economic, social and cultural development. This activity also provides a blueprint for effective operation across a large Cluster which comprises more than one region.
- In December 2015 the South East RSF made a comprehensive submission to the consultation process on the National Skills Strategy. This submission covered themes including skills required, activating the skills supply, and developing skills.
- Nationally there is sharing of best practice and the data being collected will facilitate national analysis as well as regional analysis. As a result some decisions, (e.g. on the development of a 'Pathways to FET / HE' information portal and on a national intranet) will be developed by the recent appointments of the Regional Skills Forum managers.

Further progress by the South Cluster relates to Postgraduate Studies and initiatives to support the delivery of postgraduate modules (both generic skills and specialised subject modules) across the Cluster:

- A Cluster Collaborative Memorandum of Understanding is being developed to enable module delivery, student mobility and credit exchange in support of postgraduate research students.
- A shared common module on Research Integrity and Research Ethics is under development that can be delivered across the Cluster. The recent national policy statement on ensuring research integrity in Ireland, means that training of postgraduate students in research ethics is an essential component of their studies.

Further progress on joint academic developments include the IT Tralee-led project "*Digital Supports for Transitioning International Students into the Irish Higher Education Sector*" which was funded under the National Forum for the Enhancement of Teaching and Learning. This was the first Cluster-wide project to be funded. This project is operating extremely well, with three core pillars around Internationalisation, Research, and Use of Digital Technology (<http://www.teachingandlearning.ie/digital-supports-for-transitioning-international-students-into-the-irish-higher-education-sector/>). All higher education institutions across the South Cluster are represented and contributing to this initiative. This has led to further initiatives in the enhancement of teaching, learning and assessment practice across the South Cluster.

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
Create a formal regional cluster between the named member institutions.	Agree and implement a framework for cluster operation and commence implementation of agreed collaborative projects.	Many inter-institutional relationships exist but no formalised cluster structure is in place.	Complete a progress review in terms of delivery of the work plan and implementation of agreed projects.	<p>The original workplan has been revisited by the Southern Cluster partners in light of new national and regional initiatives and priorities.</p> <p>The relationship between the various structures - Clusters, APJ Committees and RSFs and their working groups - is still evolving and efforts are ongoing by the HEIs to align the priorities and activities of the various groups, both within the South East and Mid East regions, and ultimately across the South Region and nationally.</p> <p>The above will result in a modified plan for the South Cluster to reflect the timelines required in the implementation of the various national policy initiatives.</p>	Evaluate the effectiveness of the governance framework in place for the cluster and explore further collaborative opportunities.	<p>The regional APJs developed and launched in 2015, the national prioritisation of RSF and the publication of the National Skills Strategy to 2025 has impacted on the objectives envisaged for the South Cluster.</p> <p>However, the Cluster has enabled concurrent progress and alignment of multiple national and regional initiatives across the Southern region.</p>
Improve Student Pathways.	Produce a mapping profile which outlines learner opportunities and pathways for all disciplines and levels across the cluster region which will assist in future academic planning and delivery.	Many inter-institutional pathways exist but no complete mapping profile is available.	Develop uniform access/ progression scheme for the cluster.	<p>A mapping profile designed to improve student pathways is being developed by the Cluster through the implementation of the RSF in the South East and South West regions. The AIRO in Maynooth University has developed a project called 'Pathways to Higher Education'. A prototype of an online portal has been developed designed to help students identify access routes to HE. This project was initiated through the MEND Cluster. National RSF representatives have agreed that this resource should be replicated nationally and a subgroup is being established to progress this.</p> <p>Institute of Technology Carlow has worked with the HEA and QQI to collate all awards at FET and HE offered in the South East. This work is also being done in the South West. The net outcome will be mapped academic pathways across the cluster and the resultant data 'visualised' in the national version of the 'Pathways to HE' portal.</p> <p>All partners in the South Cluster continue to expand and deepen their partnerships with further education providers. Institute of Technology Carlow has established a Memorandum of Agreement with Laois Offaly ETB which now serves as a model for linking to other ETBs in promoting pathways, particularly in the STEM and ICT domains. Institute of Technology Carlow has established formal partnership agreements with 18 further education providers - 7 of these are new agreements reached in 2015.</p>	Review pathways profile based on new academic developments.	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
Shared Academic Planning	Develop a cluster wide academic planning structure focused on the delivery of national priority objectives such as the Transitions Programme, Horizon 2020 and other objectives focused on improving the economic, social and cultural profile of the cluster region.	<p>No cluster wide academic planning structure exists. However, there is an understanding that: Individual institutes will continue to provide a broad base of undergraduate course opportunities up to level 8 to satisfy needs of individual hinterlands given the geographical scale of region; External stakeholders such as regulatory and professional bodies will also influence the planning and delivery process;</p> <p>The number of CAO entry paths is anticipated to reduce with the collective implementation of the transitions initiative;</p> <p>Agreement that there are benefits to shared academic planning in specialist areas, most notably at level 9 and above; Acceptance this will lead to the creation of strong thematic areas in individual and co-operating institutes in the cluster.</p> <p>This activity is particularly relevant to the delivery of Horizon 2020, Government objectives, targets for R&D activity and enterprise and industry development. It is also relevant to the delivery of industry and employer needs, hence engagement with employers in the region is significant to academic planning agenda.</p>	Implementation of joint academic developments which are informed by the baseline mapping process across the cluster and targeted at delivering on regional economic and social needs.	<p>Further progress on this target is now largely dependent on the completion of the national project referenced above under objective 2.</p> <p>The IT Tralee-led South Cluster project "Digital Supports for Transitioning International Students into the Irish Higher Education sector" is operating well, with all South Cluster partners represented and contributing to this initiative.</p> <p>Process for implementation of cross-cluster (southern) provision of structured doctoral training modules for research students agreed (roll out 2016/17).</p>	Review operation of academic planning process with a view to identifying new areas for collaboration in the next round of institutional compacts.	



2. PARTICIPATION, EQUAL ACCESS AND LIFELONG LEARNING

"We embrace access, equality of opportunity and progression in order that our diverse learner population is empowered to succeed as citizens of a challenging world."

Institute of Technology Carlow
Strategic Plan 2014-2018

Institute of Technology Carlow's vision embraces a commitment to continuous life-long learning, equity of access, transfer and progression for all learners. We believe that this has a positive impact on the civic, social, environmental and economic life of our region.

In 2015-16 total student numbers increased by 11% on the previous academic year (Figure 2.1, Appendix 2). Within this overall increase, lifelong learners (part-time) student numbers now account for 36% of total Institute learners (Figure 2.10, Appendix 2). In 2014/15, the most recent year for which comparative information is available for the Technological Sector, Institute of Technology Carlow had the highest % whole time equivalent (WTE) lifelong learners in the Technological sector at 27.6% (Figure 2.11, Appendix 2). This was significantly above the average for the sector which was 12.1%. It is anticipated that this lead will be maintained in 2015/16 as the % WTE Lifelong Learners is estimated to have increased from 27.6% WTE in 2014/15 to 33% WTE in 2015/16 (Figure 2.10, Appendix 2).

This growth has been accompanied by a number of significant indicators of quality. The Irish Survey of Student Engagement (ISSE) 2015 confirms enhanced student engagement compared with national and international results (Appendix 3). The strong positive commentary and commendations from Expert Review Panel feedback through the Institute's 2015 Stage 1 Quinquennial / Strategic Reviews (outcomes reported by external expert panels following site visits in 2015 can be accessed at www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm), various professional bodies' accreditation reports and the extension of Delegated Awarding Authority to all taught and research L9 activity by Quality and Qualifications Ireland (QQI) underline the commitment to standards.

As student numbers have grown the Institute has maintained median CAO entry points (Sunday Times data 2011-2015, Table 2.6 Appendix 2), improved first year retention rates (demonstrated by presence data; HEA 2011-2014; Institute of Technology Carlow 2015-16, Table 2.1, Appendix 2), increased learner numbers in STEM-based fields of study (Figure 2.21-2.23, Appendix 2) and increased graduate employment rates (Institute of Technology Carlow, 2016, Figure 2.5, Appendix 2).

HEA Springboard has been a key pillar of our Lifelong Learning activity since it was first launched as part of the Government's Job's Initiative in 2011. In February 2015, Institute of Technology Carlow was successful in securing 344 Springboard places across 15 programmes from level 6 to level 9 and 25 places for ICT programmes (details presented in Table 2.3 and Figure 2.24, Appendix 2). Between the two intakes (September 2015 and January 2016) 404 places were taken up as follows: 41% Level 6, 9% Level 7, 31% level 8 and 19% Level 9. This represented a 177% increase on the previous year's uptake. The outcome of this cohort will be available in September 2016. All programmes offer a work placement element that increases our engagement with industry and ensures the relevancy of the qualifications earned by graduates of the programme.

In relation to the academic year 2014/15, Institute of Technology Carlow responded to the HEA Springboard call in February 2014 and was successful in securing 142 places across six programmes from level 7 to level 9 (see Table 2.4 and Figure 2.25, Appendix 2, for details). 144 places were filled and the outcomes are as follows: 84 completed successfully; 26 part-completed with some modules deferred to 2015/16. From available

HEA data (2016), it is clear that Institute of Technology Carlow has outperformed both University and Technological sectors in filling allocated places under HEA Springboard. Further initiatives will be introduced to improve the uptake of allocated places under the ICT Skills conversion programme. The ability to offer the Springboard-funded Higher Diploma in Computing on a part-time basis for 2016/17 will help address this requirement. (Also see Figures 2.28 and 2.29, Appendix 2 for further details on the progress towards generating additional ICT graduates).

Sector	Springboard+ 2014 Total	ICT Skills 2014	Springboard 2014
Institute of Technology	1,300 (61% uptake)	257 (51%)	1,043
University Sector	668 (87% uptake)	93 (74%)	575 (90%)

Sector	Springboard+ 2015 Total	ICT Skills 2015	Springboard 2015
Institute of Technology	1,991 (55% uptake)	292 (56%)	1,699
University Sector	901 (121% uptake) *	162 (105%) *	739 (125%) *

The numbers quoted are the places initially approved under the initiatives. The percentage in brackets is the rate of take up of places. Note that the "overflow" on the 2015 University places is due to additional places approved subsequent to the initial notification. No further benchmarking data is currently available for Springboard.

In 2015 the Institute also participated in the European Globalisation Adjustment Fund (EGF) Programme in support of redundant workers in the EU. The Institute liaises with the DES (Managing Authority for EGF Ireland), the HEA and the EGF Coordination Unit in relation to EGF eligible

learners and has had learners under EGF from Dell, SR Technics, Construction Programme and Talk Talk Programme. Currently the Institute has learners from Andersen Ireland, Lufthansa Technik Airmotive Ireland (LTAI) and PWA International (PWA). It promotes higher education opportunities to EGF eligible learners on a continuous basis using a number of digital and other communication strategies (including site visits).

Institute of Technology Carlow has continued to strengthen and sustain access, transfer and progression opportunities for all learners. In the past year, the Institute has reviewed its *Access and Widening Participation Policy* to include First Generation Learners and those from a travelling community background, while maintaining its intake of mature, SEG and SWD access groups (Table 2.2 and Figure 2.8, Appendix 2).

Institute of Technology Carlow's activities in Wexford, Wicklow and with the community-based An Cosan in Tallaght, further facilitate access and progression for cohorts of learners who otherwise may not have easily availed of higher education opportunities.

The building of new and stronger links with the recently established Education and Training Boards in our region (Kilkenny Carlow ETB, Laois Offaly ETB, Waterford Wexford ETB, Kildare Wicklow ETB and Tipperary ETB) and beyond continue to open up new pathways for learners to enter at a level appropriate to their prior learning and to achieve their academic and personal potential.

To-date the Institute has formal signed partnership agreement with 18 public Further Education Providers including Carlow Institute of Further Education and Training (Carlow); Tullow Community School (Carlow); St John's Central College (Cork); Stillorgan College of Further Education

(Dublin); Portlaoise Vocational College (Laois); St Conleth's Community School (Kildare); St Farnan's Community School (Kildare); Ormonde Vocational College (Kilkenny); Abbeyleix Further Education Centre (Laois); Portlaoise Vocational College (Laois); Waterford College of Further Education (Waterford); Moate Business College (Westmeath); Selskar College (Wexford); Bunclody Vocational College (Wexford); Ramsgrange Vocational School (Wexford); Colaiste an Atha, Kilmuckridge (Wexford); Bray Institute of Further Education (Wicklow); Arklow Community College (Wicklow). Seven of these eighteen agreements are new for 2015/16.

The Institute also established a Memorandum of Agreement with Laois Offaly ETB in 2015 which now serves as a model for linking to other ETBs in promoting pathways, particularly in the STEM and ICT domains. This has also served to ease the transition from Further Education to Higher Education for those who progress through these agreements. For example, those who complete major awards at NFQ levels 5 and 6 in the FE sector, together with successful completion of an Institute of Technology Carlow Preparation for Higher Education Workshop (launched in 2015) are eligible for entry and advanced entry to programmes in the Institute.

Institute of Technology Carlow introduced a new High Performance Entry (HPE) Scheme in 2015 to enable athletes and other high achievers who are committed to their activity to achieve their dual ambition of a high quality education and performance at the highest level within their field. This gives recognition to achievements beyond the classroom and currently applies to the following three areas - Sport, Active Citizenship and Innovation/ Entrepreneurship.

Institute of Technology Carlow has, as a leader in the Recognition of Prior Learning, continued to contribute to the QQI national RPL practitioner network. Key examples in this area include the alignment of professional aviation licences and linking with leaders, such as the Defence Forces.

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To maintain National Access Plan student entrant numbers by developing further non-standard entry routes through FE and other providers, including RPL opportunities.	(1) Mature student entrant numbers (2) Non-standard student entry routes to Institute of Technology Carlow.	Mature student entrants to Institute of Technology Carlow September 2012 – 26% of full-time student enrolments.	Maintain National Access Plan numbers. Articulation agreements between every faculty/centre/campus and FE sector.	Interim Target exceeded. As demonstrated through HEA published data, Institute of Technology Carlow has maintained its access numbers for mature, target SEGs and those progressing from Further Education (Table 2.2 and Figure 2.8, Appendix 2). Additionally Institute of Technology Carlow has reviewed its policy, procedures and systems in promoting initiatives for those first generation learners and those from the travelling community. Institute of Technology Carlow introduced a new <i>High Performance Entry (HPE) Scheme</i> in 2015. Institute of Technology Carlow has now signed agreements with 18 public Further Education providers linking to all faculties and campuses. Seven of these eighteen agreements are new for 2015/16.	Maintain and exceed National Access Plan numbers. RPL to be used in all faculties/centre/campus	



3. EXCELLENT TEACHING AND LEARNING AND QUALITY OF THE STUDENT EXPERIENCE

"We foster an inclusive and positive environment that values and supports learners in achieving their highest potential. We expect learners to be successful and to have pride in the achievement of their goals."

Institute of Technology Carlow
Strategic Plan 2014-2018

Institute of Technology Carlow has long prided itself on being a learner-centred institution. This is clearly reflected in the centrality of the learner experience in the Institute's Values Statement and articulated in Goal 1 of the Institute's Strategic Plan (<http://www.itcarlow.ie/resources/strategic-plan.htm>). The Institute is committed to providing the highest-quality education for all its learners, enabling them to achieve success in their career paths and make a valuable contribution to society. When implementing student-centred learning, Institute of Technology Carlow continually strives to ensure that, in addition to learners being involved in programme design, the delivery method of programmes encourages learners to take an active role in the co-creation of the learning process. This is achieved by learner representation on the Governing Body, Academic Council and its Committees, and on Programme Boards. The view of the learner is captured using a variety of methods including:

- the *Irish Survey of Student Engagement* (ISSE) where the engagement survey response rate in 2015 for Institute of Technology Carlow was the second-highest across the Irish Higher Education Sector at 36.6% (see Appendix 3 for benchmarking with the Irish and UK higher education systems) and
- the Higher Education Student Activity and Sport Study Ireland 2015 (see Appendix 4 for benchmarking with 36 colleges across Ireland).

A detailed analysis of the ISSE 2014-2016, benchmarked against the Irish and UK Higher Education System is presented in Appendix 3. While the Irish Student Engagement Survey results show a degree of similarity across the University and IoT sectors, there are many positive aspects of the student experience noted in Institute of Technology Carlow which re-affirms the progress made and the direction taken through the implementation of the

Institute's strategic plan. In looking specifically at how first year, final year and postgraduate learners judged the quality of their entire educational experience, across the three annual engagement surveys (2014 -2016) there is a very definite trend showing an increasingly positive response year on year. For example, in 2014 78% of postgraduate students judged their experience to be good or excellent; this figure increased to 86% in 2016. Likewise, when the same groups were asked if "you could start over again would you go to the same institution" the responses showed very positive and an improving assessment. For example, in 2014 81% of first year students said they would probably or definitely repeat the experience; this figure increased to 88% in 2016 (see Appendix 3 for further details).

Similarly, when the *Higher Education Student Activity and Sport Study Ireland 2015* is analysed (Appendix 4) across the 33 higher education institutions surveyed, Institute of Technology Carlow was rated in the top five institutions in all but one of the key performance indicators (this is currently being addressed through a new 30 acre sports campus development – see Appendix 7), with participation in exercise amongst students being found to be significantly higher in Institute of Technology Carlow than elsewhere. 80% of Institute of Technology Carlow students surveyed indicated very high levels of satisfaction, ranking their satisfaction for sport exercise provision in the college in the highest bracket. This, together with one of the highest participation rates in clubs and societies further supports the Institute's transition and retention priorities aimed at enhancing learner connectedness at both Institute and programme level.

Quality assurance and enhancement processes exist to ensure that all resources are fit for purpose, accessible and that the learners are informed

about the services available to them (<http://www.itcarlow.ie/resources/quality.htm>). All Institute of Technology Carlow activities are under constant review and an overview of the Institute's recent strategic planning, review and quality enhancement initiatives and milestones are presented in Figure 1.1. The SDC3 timeframe of 2015 spans the recently completed Stage 1 Quinquennial (Strategic) Reviews (September 2014 - June 2015) and the Stage 2 Quinquennial (Programmatic) Review (September 2015-June 2016) across all Faculties, Centres and Campuses. The outcomes of all quality reviews can be accessed at <http://www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm>, while the outcomes for the latter will be published later in 2016. These were accompanied by the 2015 Annual Institutional Quality Review (AIQR) to QQI, and a 2015 review of policies and procedures for research and for research ethics. These, together with the positive outcomes of other earlier reviews culminated in the delegation of awarding authority by QQI to Institute of Technology Carlow for all activities up to Level 9 in 2015.

A sample of the commendations from external expert review panels arising from these reviews following site visits and meetings with both internal and external stakeholders is presented in Table 2.8, Appendix 2. These comments strongly endorse the quality of the learner experience across all activities at Institute of Technology Carlow, underpinned by a demonstrable commitment to excellence, connectedness, knowledge, creativity, innovation and ethical behaviour.

As integral part of this success is a continued focus on staff development as a strategic priority for the Institute. The published criteria for Technological University designation requires institutes to have a minimum of 90%

of full-time academic staff to hold a level 9 qualification and 45% of staff to hold a doctoral qualification or terminal degree appropriate to their profession. To develop a trajectory towards meeting this criteria the Institute introduced a process of supporting staff undertaking level 10 qualifications in 2012. The Institute is now well advanced towards meeting the national Technological Targets for staff qualifications. In 2015, 98% of academic staff held a level 9 or higher qualification or equivalent, while 31% of academic staff held a level 10 qualification. In addition a further 17% of academic staff are undertaking level 10 qualifications. These are all registered at external HEIs, as required under the staff development and quality assurance policies of the Institute.

In correspondence to all HEIs on the 23rd May 2016 the HEA outlined a series of general requirements for SDC3. Within this current category of activity (teaching and learning and quality of the student experience), HEIs were requested to provide a response to the **Transition Agenda and Retention Initiatives**.

Institute of Technology Carlow's response to the **Transition Agenda** addressing 1) Strategic Intent in Programme Provision, 2) Policy and Procedures underpinning the Strategic Intent and 3) Reduction in the Number of Entrance Points into Higher Education, is detailed in Table 1.3, Appendix 1. Specific examples are provided which demonstrate the process being employed by the Institute to manage the academic portfolio and to reduce the number of entry points. This has resulted in a reduction in the Level 8 CAO offering by almost 20% from 2014 (37) to 2017 (32) while providing necessary additional specialisms in Science and ICT required by regional stakeholders (Table 2.7, Appendix 2).

Institute of Technology Carlow's response to **Retention Initiatives** encompassing 1) FYE and Structured Induction for a Diverse Learner Population, 2) First Year Curriculum, Review, Feedback and Supports, 3) Informed Programme Choice and Internal Transfer Process and 4) ICT Retention Centre, is also detailed in Table 1.3, Appendix 1. Table 2.1, Appendix 2, presents the tracked progression rates from 2010/11 to 2015/16 for Institute of Technology Carlow. The years 2014/15 and 2015/16 are subject to HEA audit before being finalised but provisionally highlight an enhanced overall throughput.

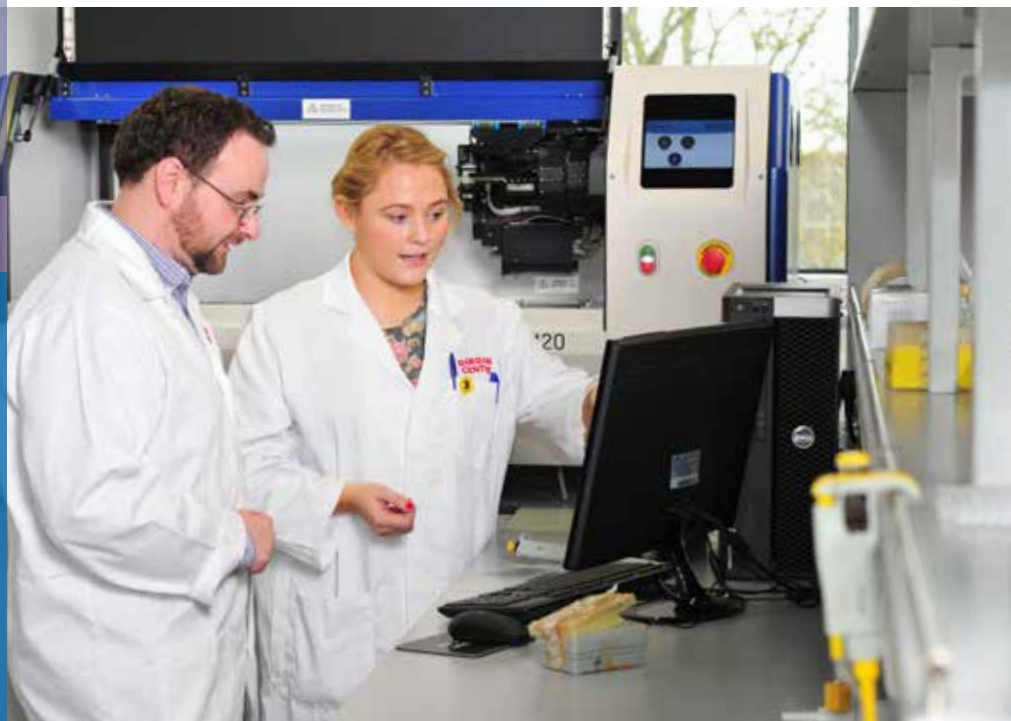


INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To implement Institute of Technology Carlow staff development plan focusing on: the enhancement of teaching, learning, assessment and curricular development skills and the development of knowledge linked to IT Carlow's strategic research goals.	<p>28% of academic staff qualified to doctoral level by 2016.</p> <p><u>Sub-indicators</u></p> <p>Continued implementation and recognition of Academic Professional Development suite of courses including delivery of MA in Teaching and Learning programme.</p> <p>Continued rollout of the Institute's staff development plan linking to the Institute's strategic goals.</p>	18% of WTE Academic Staff with doctoral level qualifications (2010).	<p>Continued implementation and recognition of Academic Professional Development suite of courses including delivery of MA in Teaching and Learning programme.</p> <p>Further implementation of staff development plan. 24% of staff qualified to doctoral level.</p>	<p>Interim target exceeded.</p> <p>31% of academic staff now qualified to doctoral level with 98% holding Level 9 or higher level qualifications.</p> <p>Institute of Technology Carlow has a comprehensive suite of staff development support mechanisms in place. This provides opportunities for all staff to undertake professional development and pursue higher qualifications. This includes a range of academic professional development activities in pedagogy, teaching, learning, technologies and assessment and the continued offering of the Institute's MA in Teaching and Learning being undertaken by 14 learners including staff from our collaborative partners in the Defence Forces and An Cosán and associate lifelong learning lecturers.</p> <p>17% of academic staff are undertaking doctoral studies at present.</p>	<p>Continued implementation and recognition of Academic Professional Development suite of courses including delivery of MA in Teaching and Learning programme.</p> <p>28% of staff qualified to doctoral level.</p>	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To further embed quality assurance and enhancement arrangements, leading best practice and meeting all statutory requirements.	<p>To continue to implement QA&E work plan.</p> <p>Surveys, action and feedback.</p> <p>Established Teaching, Learning and Assessment Strategy.</p>	<p>Approved QA&E work plan.</p> <p>Successful conclusion of Institutional Review 2010.</p>	<p>80% of work plan implemented.</p> <p>Commencement of Strategic and Programmatic Reviews.</p> <p>Institute-wide survey implemented and feed-back disseminated.</p> <p>Roll-out of Academic Professional Development to 80% of staff.</p>	<p>All interim targets achieved.</p> <p>The work plan set out in 2012 has been completed ahead of schedule.</p> <p>Publication of the Institute's Quality Manual(http://www.itcarlow.ie/resources/quality.htm) and outcomes of quality assurance and enhancement activities; the implementation of the constituent elements of the Quality Manual and their ongoing review remain a priority for the Institute. We continue to be an internationally oriented organisation, with a robust open self-evaluation, peer review and quality enhancement culture.</p> <p>The Institute's Academic Professional Development links inherently to quality enhancement with changes in policies and procedures underpinned by a portfolio of activities across all faculties and campuses. This is a central part of staff induction and the continual programme of professional development.</p> <p>In 2015, all faculties undertook Stage 1 Quinquennial (Strategic) Reviews (outcomes reported by external expert panels can be accessed at http://www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm, while summary commendations are presented in Table 2.8, Appendix 2) and in 2016 all areas completed Stage 2 Quinquennial (Programmatic) Reviews (to be published later in 2016).</p> <p>One central input to these processes is learner feedback. The Institute plays a leading role in the continued deployment of the Irish Survey of Student Engagement. Its completion rate for ISSE 2015 at 36.6% was the second highest in the country. We act on the outcomes of the survey, communicating actions undertaken in response, and encourage all learners to undertake the survey.</p>	<p>100% of work plan implemented.</p> <p>Strategic and Programmatic Reviews.</p> <p>Preparation for Institutional Review 2017.</p>	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To enhance the first-year experience of students through the provision of more broad-based, multi-disciplinary presence while facilitating progression to highest possible level in specialist demand-based programmes meeting social and economic regional and national need.	Development and delivery of market-led programmes meeting the dual demand of applicants and industry at regional and national needs while enhancing the transition from second to third-level for entrants via that route.	<p>Current academic portfolio and CAO presence.</p> <p>Development of Strategic Plan 2014-18 with graduate attributes as a key theme.</p>	<p>Continued review of CAO footprint to provide broad-based entry to remaining faculty and campus programmes.</p> <p>Level 9 developments and continued delivery of Levels 6-10 provision.</p> <p>Faculty/Centre/Campus strategic reviews with key element being graduate attributes.</p>	<p>Interim targets achieved.</p> <p>Institute of Technology Carlow has reduced its CAO offering at Level 8 by almost 20% from 2014 (37) to 2017 (32) while providing new specific offerings in Science and ICT (Table 2.7, Appendix 2). This has been accompanied by the provision of broad-based entry in Construction, Business and Science at levels 7 and 8 and in both Carlow and Wexford.</p> <p>The Institute continues to provide across Levels 6 to 10 with a growth in 2015/16 of numbers at Levels 6 and 7 (Figure 2.15, Appendix 2). In 2015 we developed four new Level 9 programmes including offerings for Springboard (Medical Devices Regulatory Affairs) and for our Defence Forces collaborative partners (Weapons, Ordnance, Munitions and Explosives and Military Engineering).</p> <p>We have completed the two stage process of Quinquennial (Strategic and Programmatic) Reviews of all faculties and campuses embedding graduate attributes. These attributes will be further consolidated and communicated in 2016.</p>	<p>Further accommodate integrated module provision across levels, programmes and campuses as part of programmatic reviews.</p> <p>Faculty/Centre/Campus programmatic reviews.</p>	





4. HIGH QUALITY, INTERNATIONALLY COMPETITIVE RESEARCH AND INNOVATION

"We will create, develop, apply and exchange knowledge to ensure highly skilled graduates and ideas to drive enterprise creation and development."

Institute of Technology Carlow
Strategic Plan 2014-2018

Institute of Technology Carlow's strategic priorities to-date have focused on building and strengthening research capacity in terms of infrastructure, facilities, culture and staff supervision capacity with the goal of meeting and exceeding Technological University criteria within the next three years (see Table 5.1, Appendix 5). The key focus of the next phase of development will concentrate on extending research collaboration across the South regional cluster, nationally and internationally.

The Institute has recently undertaken a mid-term review of the Strategic Plan 2014-2018. A review of progress against RDI objectives underlines considerable achievement to date and demonstrates the Institute's continued commitment to building significant capacity in this area. In the

autumn of 2015 Institute of Technology Carlow conducted a review of its targeted research strategy in order to further concentrate effort and focus on areas where the Institute has a strong track record of academic and



industrial impact and therefore maximum potential and opportunity for collaboration. The thematic priorities are: enviroCORE (Bioenvironmental technologies); designCORE (Product design and design thinking); gameCORE (Computer gaming and interactive applications); healthCORE (Health, wellbeing and rehabilitative science); engCORE (Engineering systems-applied mechatronics, circuits and systems intelligent built environment).

Each of these map to key scientific priority themes identified under the National Research Prioritisation exercise, they address specific Societal Challenges underpinning H2020 and map to key sectors identified in the Innovation 2020 strategy.

Since 2014 there has been:

- Significant development and enhancement of institutional research culture and focus. The appointment of experienced lecturers and principal investigators (PI) to lead strategic research groups has been a key driver in this process and this has been supported with a range of research supports and funding to encourage and enable participation in wider research networks. Staff commitment to research is evident in the numbers now registered on PhD programmes in other HEIs. In 2012, 18% of staff held a Level 10 qualification (with a further 2.65% registered on a PhD programme). In 2016 those figures are 31.2% and 16.8% respectively.
- Continued investment in and enhancement of Institutional Research Infrastructure to foster an appropriate culture of collaborative enquiry.
- These initiatives are seeing an increase in the postgraduate research cohort and in the number of research active academics (currently > 60% of full time staff) involved in supervision and researcher training programmes. Research students have regular opportunities to participate in structured modules, seminars, hosted conferences and symposia and to discuss their research in more informal shared spaces throughout the campus. Through the Head of Postgraduates Studies a structured programme in research practice was implemented involving over 50 postgraduates and 30 academic researchers engaging in seminars and workshops on methodologies, academic writing, research ethics, and career planning among others. This programme was delivered by national and international experts in addition to our own research cohort. In parallel with these initiatives the postgraduate policy and procedures

entitled Postgraduate Awards by Research and Dissertation at NFQ Level 9 and Level 10 (Admission, Registration, Supervision and Examination) were updated and submitted to an expert peer review panel chaired by an international chairperson (<http://www.itcarlow.ie/study/postgraduate-rd/post-graduate-policies.htm>).

- Within the context of the South Regional Cluster a shared approach to structured postgraduate training, including a common cross-institutional module focusing on research integrity is in development. Other research initiatives in the collaborative space have included a number of innovative industry sponsored PhD scholarship programmes. This close liaison with industry partners as sponsors, as programme advisors and as potential co-supervisors gives these programmes a distinctive identity within Irish research education.
- RDI activity has focused on strengthening the regional engagement of the Institute. The Design+ Technology Gateway, the Regional Skills Forum and the leadership role that Institute of Technology Carlow has taken in the implementation of the South East Action Plan for Jobs are significant developments in this space.
- The appointment of dedicated PIs to lead the strategic development of core research centres has focused activity on building collaborations and extending the institute's international network. CORE leaders are tasked with identifying, building and extending opportunities for funded research collaboration.
- Researchers across a range of disciplines are co-located in a new (2014) purpose built research centre; encouraging and promoting 'inter CORE' activities and project proposals.
- Enhanced Public Confidence is clear from the significant growth in student numbers across all postgraduate programme offerings. In 2011/12 Institute of Technology Carlow was 11th in the IOT sector in terms of postgraduate numbers (taught and research). In 2015/16 Institute of Technology Carlow was 2nd only to DIT in terms of percentage of postgraduate numbers. In the same period, total learner enrollments

increased by 40%. In 2011/12 Institute of Technology Carlow was in 7th place in terms of numbers. In 2015/16 Institute of Technology Carlow is in 4th place. The institute has worked to develop a range of industry driven taught postgraduate programmes that offer progression pathways into key strategic research areas. New programmes include offerings in the fields of Data Science, Fintech, Medical Devices, Applied Research and Innovation and Weapons Systems. The enhancement and external validation of QA systems and processes around Research and Research Ethics has underlined the institute's commitment to the highest standards in research practice.

The impact of this is a growth from 33 registered research postgraduates in 2010/11 to 55 registered research postgraduates in 2014/15; there are 80 registered research postgraduates in 2015/16. This represents an increase of over 140% in the timeline under review against a sector forecast of 83% (Institutional Trend Data published by HEA, 2013). This growth rate will see Institute of Technology Carlow reach and exceed the IOT average for research as a proportion of all level 8 and over FTE and meet the TU criteria within 3 years.



INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To integrate the new RDI building (Dargan Centre) into the Institute's Research and Innovation environment. This will include the establishment of appropriate structures to manage and support campus based spin-out companies, Institute companies and other enterprises emerging from or linked to the Institute's research activity.	Fully commissioned RDI building, innovation and enterprise supports in place, spin-out/ industry led RDI.	Current research facilities (2013) and campus incubation and innovation Centres.	Industry orientated/ led research groups established. Implementation of Strategic Development Plan for the Dargan Centre focussed on integrating relevant RDI on-campus activities, increasing external funding, growing postgraduate research, enhancing collaborative partnerships and maximising engagement and impact.	Eight CORE leaders appointed across five priority COREs. Establishment of Design+ Technology Gateway in Dargan funded by Enterprise Ireland and applying design thinking capabilities to companies in ICT, Biosciences and Engineering technologies involving all Institute of Technology Carlow COREs. Lead on priority actions under the South East APJ and Mid-East APJ. Regional Skills Forum Office located in Dargan Centre Hosting of international conferences in Bioinformatics, Design and Engineering. KTI Metrics for 2015 include 91 on-campus start-up companies; 2 spin-out companies, 111 research agreements with industry, 4 license/assignments and 7 invention disclosures. Citation / Research Impact Metrics - see Figure 5.1, Table 5.2 and Table 5.3 Appendix 5.	The RDI building activities fully integrated with the Institute's RDI and teaching activities. Centre of the Institute's postgraduate studies provision. Facilitation of spin-out companies and industry focused research contracts/ collaborations.	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To develop a multi-campus Graduate School in collaboration with WIT as a key component of a South East Technological University.	Progress towards a multi-campus graduate school initiative.	Current postgraduate research provision and delegated authority position within each Institute; Current research strategies; Strategic plans and research prioritisation plans.	Agree and implement academic and QA arrangements for the graduate school. Initiate the roll-out of the graduate school in 1-2 prioritised cross-campus research areas.	Process for implementation of cross-cluster (southern) provision of structured doctoral training modules for research students agreed (roll out 2016/17). Institute of Technology Carlow has designed and validated a structured MSc programme and a suite of specialist research modules for masters and doctoral researchers. In addition in the year to date the Institutes Policies and Procedures for Joint Awards has undergone external expert peer review. The approval of same provides the institutional QA framework to facilitate the process for implementation of the agreed cross-cluster provision of structured doctoral training modules for research students.	Full implementation of the Graduate School for all Level 9 and 10 postgraduate research students.	As agreed with South Cluster Presidents (UCC, CIT, IT Tralee, IT Carlow and WIT) an initiative to implement shared and joint structured skills training modules has been agreed for roll-out in 2016/17. The general objective remains the same i.e., a multi-campus graduate provision including collaboration with WIT in the context of the TU project.
To increase the number of post graduate research students to 100 registered students by beginning of academic year 2016/17 - Note: This objective is directed towards meeting the criteria of Technical University designation and is subject to additional investment for completion.	Post graduate registered students.	Registered students as at beginning of academic year 2012/13.	80 Registered students as at beginning of academic year 2015/16.	2015 target achieved.	100 Registered students as at beginning of academic year 2016/17.	



5. ENHANCED ENGAGEMENT WITH ENTERPRISE AND THE COMMUNITY AND EMBEDDED KNOWLEDGE EXCHANGE

"We will continue to enhance our contribution to the development of a creative, sustainable and fair society."

Institute of Technology Carlow
Strategic Plan 2014-2018

The principle of 'connectedness' permeates all activities of Institute of Technology Carlow across teaching and learning, research, and service missions. The development of a stronger economic, social and cultural base to our region is reflected through the work undertaken with local, regional and national stakeholders through initiatives such as the Action Plan for Jobs, Regional Planning Guidelines, European City of Culture 2020, and the development of the Local Economic and Community Plans (LECP) for the counties in our region.

The development of a 'regional engagement forum' was a strategic initiative proposed by Institute of Technology Carlow under phase 2 of the process towards Technological University. This was originally included as an objective under SDC1. The proposal for a Regional Engagement Forum has been subsumed into the national network of Regional Skills Fora (RSF) established by the Department of Education and Skills in 2015. Institute of Technology Carlow has taken the lead on the **South East Regional Skills Forum** (SE RSF) as proposed through the South East Action Plan for Jobs in 2015. In practice this means the Institute holds the chair of the Regional Skills Forum Steering Committee and the Regional Education and Training Providers Group. The latter is the designated employer for the SE RSF manager. A series of meetings from May 2015 to date of the South East Regional Skills Forum- Education Providers Group has highlighted the need to develop 'structured engagement pathways' through FET / HE and into employment. Progress has been made on developing the mapping of FE and HE provision in consultation with multiple stakeholders. This project will be progressed by the SE RSF manager who took up his position in May 2016. Prior to this the mapping and data collection was facilitated through

a funding proposal from the SE RSF to the DES for administrative support which was approved in October 2015. This work facilitated the production of a baseline report.

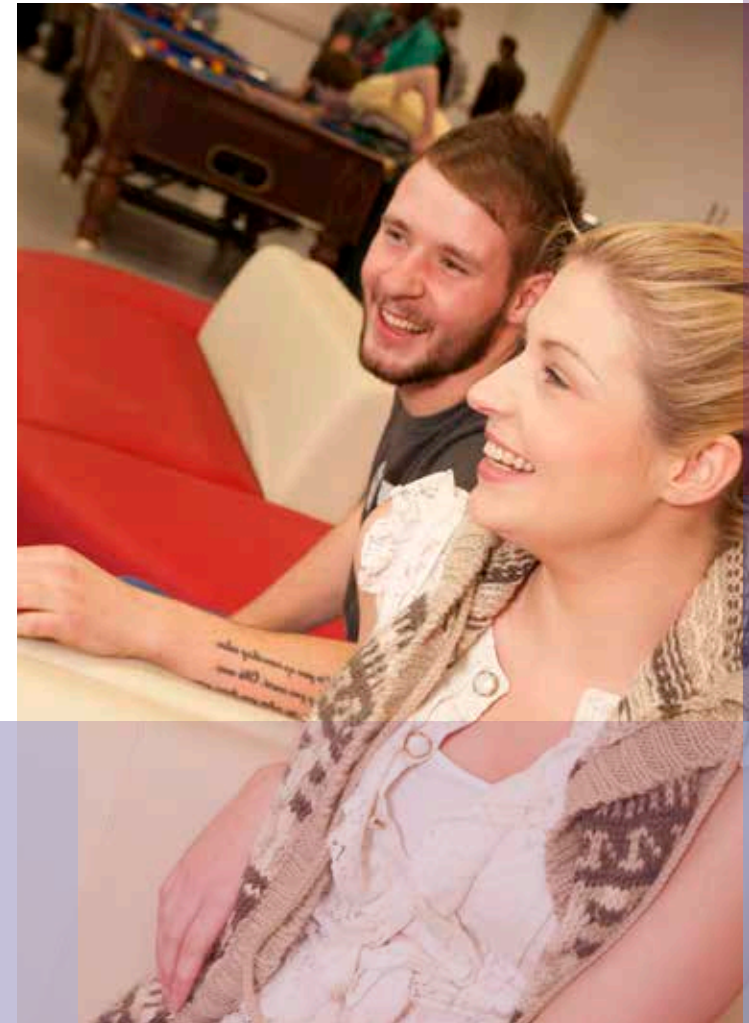
Institute of Technology Carlow is also in the process of establishing the **Design+ Technology Gateway** in order to support and enhance technology driven disciplines, linking that technology to business opportunities and user needs. Design+ will develop an inclusive design-led regional and national industry portal which will complement existing Technology Gateways. Design+ will join 12 other Technology Gateways in Ireland, acting as a regional portal where local industry can leverage the skill-sets of the national network. Companies can source technology solutions for their 'close to-market' needs in a wide range of sectors including; ICT, Biotechnology, Polymer Technologies, Manufacturing, Connected Media, Engineered Materials, Pharmaceutical and Healthcare. The aim is to increase efficiency, sustainability and competitive advantage for industry. On a regional level Institute of Technology Carlow works closely with Enterprise Ireland, BICs, Business Network Groups, Skillnets, Chambers of Commerce and the Local Enterprise Offices (LEO) in the region to promote the Enterprise Development supports at the Institute. Institute of Technology Carlow is committed to promoting start-up businesses and transferring the Institute's technology and know-how into viable commercial entities. Working closely with both industrial and commercial sectors nationally and internationally, Institute of Technology Carlow is continually developing collaborations with existing businesses.

Our TTSI (Technology Transfer Strengthening Initiative) consortium involving AIT, MU and WIT developed strong collaborative practices over the course of TTSI2. The consortium was recognised as being very effective through the achievement of an "A Rating" in performance and in feedback provided by the expert panel:

"The Panel recognised this as an impressive consortium that truly sees itself as a team serving four institutions and working together in partnership. A strong KT strategy with effective KT operations is evident. There is also strong evidence of trust, sharing and a good working relationship between the partners. The Panel noted that metrics have been met and/or exceeded to date, and admired the attention to quality of output. Overall the Panel thought that this is a strong consortium and particularly applauded the shared marketing initiatives, transfer of expertise and general collegiality and trust between the partners. The panel concluded that this consortium represents a genuine partnership delivering value for money and successfully achieves its metric targets."

Institute of Technology Carlow President's Volunteer Awards scheme was established in association with UNUM Ireland, a US multinational based in Carlow, and Carlow Volunteer Centre to harness, acknowledge and support the contribution that learners at the Institute make to their communities whether on campus and its environs or within their own local community, or overseas. The response to this initiative has been very positive with year-on-year growth of almost 100%. Successful participants in the programme

are recognised at the annual conferring ceremonies in the Autumn. The Institute is committed to the development and delivery of curricula measured against defined civic and social engagement criteria. This process has been implemented through the Quinquennial (Strategic and Programmatic) Reviews of all academic centres (Table 2.8, Appendix 2). In addition a staff engagement database has been created and this will provide data for trend analysis and benchmarking in future years.



INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
Enhance our contribution to the economic, social and cultural development of the region in partnership with WIT through the expansion of partnerships and alliances	Establishment of Regional Engagement Forum as per TU Stage 1 submission. Staff and institute engagement audits.	Extensive engagement and collaborations across region in economic, social and cultural activities. IT Carlow staff and Institute Engagement Audit 2013/14.	Regional Engagement Forum operating.	The original proposal for a Regional Engagement Forum under SDC1 has been subsumed into the national network of Regional Skills Fora (RSF) established by the Department of Education and Skills. Institute of Technology Carlow has taken the lead on the South East Regional Skills Forum (SE RSF) as proposed through the South East Action Plan for Jobs in 2015 IT Carlow holds the chair of the SE RSF which is operated in association with all the education and training providers in the south east, including WIT. The SE RSF is fully operational and the RSF manager for the region took up his post in May 2016.	Evaluation of Regional Engagement Forum. Report on staff and institutional engagement audit.	
To increase IT Carlow output of economically relevant knowledge, know-how and patents through strengthening institutional competence at TTO level and among researchers.	Agreed EI Technology Transfer Office metrics.	EI Technology Transfer Office metrics 2012.	EI Technology Transfer Office metric targets for 2015 are Spin outs (1); Licences/ Options/ Assignments (3); Research agreements with industry (>25K) (2); Invention disclosures (4); Priority patent applications (2); PCT Patent Applications (1); Research agreements with industry (<25K) (50); Start-ups, spin-ins etc (15).	Enterprise Ireland Technology Transfer Office achieved metrics for 2015 are Spin outs (0); Licences/ Options/ Assignments (1); Research agreements with industry (>25K) (3); Invention disclosures (7); Priority patent applications (0); PCT Patent Applications (0); Research agreements with industry (<25K) (45); Start-ups, spin-ins etc (91); Institute of Technology Carlow will see in 2016 an increased activity in research agreements with industry (<25K) and is on target to meet with research agreements metric with industry (>25K). The establishment of the Design+ Technology Gateway in January 2016 will assist in achieving these metrics. All other metrics are in line with projected targets.	EI Technology Transfer Office metric targets for 2016 are Spin outs (1); Licences/ Options/ Assignments (3); Research agreements with industry (>25K) (2); Invention disclosures (4); Priority patent applications (2); PCT Patent Applications (1); Research agreements with industry (<25K) (50); Start-ups, spin-ins etc (15).	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To strengthen learner engagement and civic identity through module and programme delivery.	Proportion of modules reviewed against learner engagement and civic identity criteria approved by academic council. Number of students participating in President's Volunteer Awards.	Programmatic review documentation as completed. Number of students participating in President's Volunteer Awards 2012/13.	Schools undergoing programmatic review to have reviewed modules against learner engagement and civic identity criteria Increase of 10% in the number of students participating in President's Volunteer Awards.	All faculties have completed Quinquennial (strategic and programmatic) Reviews from 2014-16. In the strategic reviews it was recommended that programme teams would have to explicitly discuss how social / civic awareness and engagement was embedded within each programme. A process to facilitate this was designed through the Teaching and Learning Centre. All faculties have now completed this work. The target relating to the number of participants participating in the President's Volunteer Awards has been achieved.	All schools to have reviewed modules against learner engagement and civic identity criteria Increase of 10% in the number of students participating in President's Volunteer Awards.	





6. ENHANCED INTERNATIONALISATION

"We will build upon our strategic collaborations and partnerships, both nationally and internationally. These enhance our capacity, extend our reach, increase our relevance and maximise our impact."

Institute of Technology Carlow
Strategic Plan 2014-2018

Benchmarking our international activities is a priority for the Institute. We compare our internationalisation performance (Figures 2.12-2.14, Appendix 2) against the other Institutes of Technology (IoTs) and also against similar sized institutions from competitor countries (see Part 1, Appendix 6). The Institute profile in 2010/11 showed that 5% of fulltime enrolments were represented by international learners against a national figure for IoTs of 3%. In 2014 this increased to 9% and this has been broadly maintained at 8.7% in 2015. The target for 2016 is 10%. The increasing fulltime student numbers at Institute of Technology Carlow generally (Figure 2.7, Appendix 2) creates an interesting challenge for the International Office. For example, since 2013/14 the number of international learners increased from 331 to 390 or over 16%, yet this absolute increase in recruitment is not reflected by a similar proportionate increase.

Across the UK HE system 13.7% of full time enrollments were represented by international learners in 2013/14 (Part 1, Appendix 6). This figure is almost equally split between undergraduate and postgraduate enrolments. Institute of Technology Carlow would exceed the undergraduate UK equivalent figure but postgraduates represent less than 10% of international enrolments. As part of this exercise a sample of IOT international offices was contacted. The situation would be broadly similar in other IoTs. It was pointed out that the number of research postgraduates applying for funded positions from overseas has shown an increase and is likely to show future increases. This will be kept under review in consultation with the CORE leaders.

Institute of Technology Carlow remains a leader in international recruitment among the IoTs and continues to perform above national averages for the

sector in terms of student recruitment. The benchmarking in Appendix 6 shows Institute of Technology Carlow to be consistently in the top 5 of IoTs in terms of non-EU recruitment. Targeted recruitment in Enterprise Ireland supported markets continues to be the strategic focus of the Institute. We carefully monitor intake by country and programme to ensure that incoming learners have an enriching Irish educational experience and also that the experience of Irish learners is enriched by the presence of international peers. The achievement of our recruitment objectives is enhanced by the approval in 2014 of a Reserved Places Policy and also the approval of an Institute Policy on the Admission of International Learners in January 2015. This gives some certainty to the International Office of places available on programmes that have strict capacity restrictions. The implementation of these policies and also the overall recruitment activities of the Institute are overseen by a cross-institutional steering group made up of Heads of Department and Professional Support Services staff and chaired by the Vice-President for Development and Research.

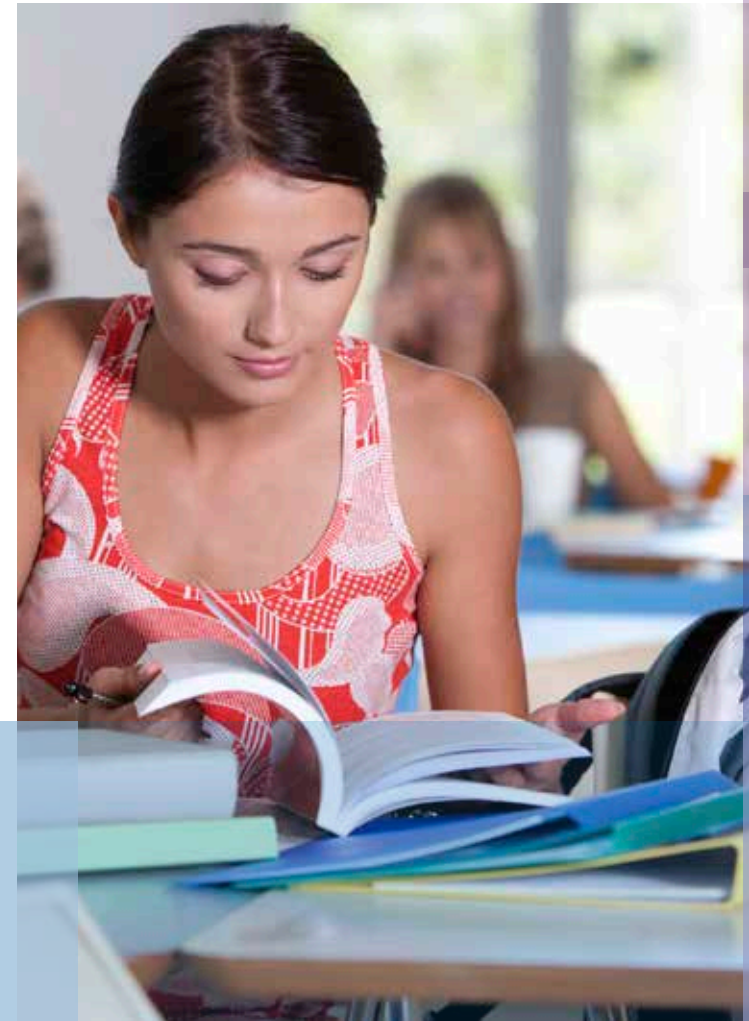
Institute of Technology Carlow actively seeks and welcomes collaborative/co-operative arrangements with other organisations (Part 3, Appendix 6). The process of developing collaborative agreements is lengthy, for good reason. There has been an increase of six (6) international alliances (MoU or articulation agreements) since July 2015. The Institute is currently in a collaborative process with a college in Malaysia of similar scale and size to Institute of Technology Carlow. This process has been going on for one year now with a target of September 2017 for delivery of Institute of Technology Carlow programmes in Malaysia. Presently the agreement is with the Malaysian quality assurance agency seeking approval to proceed to

full due diligence. The Institute has also instituted a process with Shanghai Finance University which it is hoped will lead to shared and joint research projects in the FinTech domain. This, together with on going developments with US multi-national UNUM will give Institute of Technology Carlow a strong international aspect to its growing FinTech programme, which is an important component of the South East Action Plan for Jobs.

The Faculties and Centres of the Institute are currently (June 2016) completing a two-year programme of peer evaluated strategic and programmatic reviews (Stage 1 and Stage 2 Quinquennial Reviews, see outcomes reported by external expert panels following site visits at <http://www.itcarlow.ie/resources/quality/quality-publications-outcomes.htm>). As part of these reviews a cross-institution working group was established to examine internationalisation in higher education. The National Strategy for Higher Education to 2030 acknowledges that internationalisation is both necessary and multi-faceted and that it encompasses a range of practices and activities. While internationalisation involves international student recruitment and partnerships, it also includes the development of inter-cultural experience as a core competence for graduates in an export-driven and innovation-based economy. As part of the Programmatic Review (Stage 2 Quinquennial Review) each Programme Board/Stream reviewed its curricula to incorporate international/global element(s) by considering criteria identified by the group, and informed by literature and practice, as key to embedding internationalisation in the Institute (see Part 2, Appendix 6). These include the enhancement of student exposure to global perspectives by developing an internationalised curriculum; by promoting study and work placement in industry (for industrial projects)

abroad; student exchange programmes; by providing a culturally diverse environment to study in; by allowing learners to undertake mobility programmes with international partners (not only academic but also industrial partners), and by ensuring that the ethos in which learners learn reflects the global nature of education today.

A particular initiative in the Department of Science and Health relating to sports programmes has seen a cohort of 26 learners travel to the UK, US and South Africa on placement in universities and sporting bodies. Our Erasmus places have been filled for the past two years and demand now exceeds supply in placement. Study mobility remains a challenge (Part 4, Appendix 6). This was discussed at recent institute strategy review days and suggestions were made regarding increasing outward study mobility. These will be discussed with programme boards during the next session.



INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To implement an effective strategy for student recruitment, focusing on strategically identified key markets with the objective of increasing the Institute's international student population to a minimum of 10% of the total full-time student population as per the baseline measure.	Admissions data for percentage of full time student population coming to IT Carlow whose normal place of residence is not in Ireland.	Percentage of full time student population coming to IT Carlow whose normal place of residence is not in Ireland as per Institute returns 2012/13.	International student population is a minimum of 9.0% of the total full-time student population as per the baseline measure.	In 2015/ 16 the Institute has 395 registered international learners, defined as those learners coming to Ireland to pursue a fulltime higher education programme of study. This represents an increase of 18.6% from the 2012/13 baseline study. However while the figure is an increase year on year the growth in fulltime learners means that the proportion of international learners is now 8.8% of the fulltime population. See Part 1, Appendix 6 for benchmarking metrics.	International student population is a minimum of 10% of the total full-time.	
To develop internationalised curricula and internationally focussed programmes, learning outcomes and assessment of students in line with international goals	Proportion of modules reviewed against internationalisation criteria; Increased number of alliances and collaborations with international HEIs (by 10%) over the lifetime of the plan; Percentage of students and staff involved in overseas exchange & mobility programmes.	Programmatic review documentation as completed; Data from Collaborative register as at 31/12/13; Erasmus returns for 2012/13.	Schools undergoing programmatic review to have reviewed modules against internationalisation criteria; 0.5% of students and 3% of academic staff to have participated in overseas mobility programmes.	Completed - see example in Part 2, Appendix 6.	All Schools to have reviewed modules against internationalisation criteria approved; 0.75% of students and 5% of academic staff to have participated in overseas mobility programmes.	

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
Increase the number of alliances and collaborations with international HEIs by 10% over the lifetime of the plan.	Number of alliances and collaborations listed in Institute Collaborative Register.	Data from Collaborative register as at 31/12/13.	50% of target achieved.	<p>Since 2013 (to 2nd March 2016) we have increased International Alliances by 16 and National Alliances by 4 which culminates in a 23.4% increase in International agreements and a 27.2% increase nationally.</p> <p>Specifically from July 2014 to July 2015 there has been an increase of International Alliances from 33 to 41 (19.5% increase) and National Alliances have increased from 8 to 10 (20% increase)</p> <p>See Part 3, Appendix 6 for further details.</p>	Target achieved	
To enhance student exposure to global perspectives by promoting study and work placement in industry (for industrial projects) abroad; staff & student exchange programmes; and by encouraging students to undertake mobility programmes with international partners (not only academic but also industrial partners).	Percentage of students and staff involved in overseas exchange & mobility programmes.	Erasmus returns for 2012/13.	0.75% of students and 5% of academic staff to have participated in overseas mobility programmes.	<p>Internationalisation opportunities promoted through programmatic review.</p> <p>1.33% of learners (0.6% EU & 0.73% Outside EU) have participated in mobility programmes, primarily placement programmes.</p> <p>5.6% of staff participated in overseas mobility programmes in 2015/16.</p> <p>See Part 4, Appendix 6 for further details.</p>	1% of students and 7% of academic staff to have participated in overseas mobility programmes.	



7. INSTITUTIONAL CONSOLIDATION

"We will continue to develop an internationally-oriented organisation, with a robust self-evaluation, peer review and quality enhancement culture, as we strive to embody the highest international standards of provision, transparency and stewardship of resources."

Institute of Technology Carlow
Strategic Plan 2014-2018

A Technological University (TU) in the South East is widely acknowledged as a much needed development which is likely to deliver rich dividends for the South East Region of Ireland. The National Strategy for Higher Education to 2030, the Programme for Government 2011-2016 and the subsequent Process and Criteria for Technological University Designation (February 2012) firmly signposted the direction both Institutes in the South East should travel in order to achieve this goal. This road map included a prerequisite for merger with at least one other Institute of Technology before TU status can be conferred. Institute of Technology Carlow, with its history of serving the region for the past 45 years, is committed to delivering a TU for the region and has been following a three-track approach:

- Working diligently to be TU-ready in terms of the national criteria;
- Developing a vision and implementation framework for the TU based upon a detailed consideration of the unique set of regional, national and international environments in which the TU will be established and developed; the characteristics of leading international TUs; and the experience of various universities that have been through the process of merger and the establishment of multi-campus institutions;
- Engaging in intensive discussions with WIT regarding joint vision and merger planning from;
 - Jan 2012 to October 2014
 - September 2015 to present.

In July 2012 the Institutes of Technology at Carlow and Waterford submitted a joint Stage 1 proposal to the HEA for the establishment of a SETU entitled *The South East Institutes of Technology in the Future Higher Education Landscape*. This Stage 1 SETU application was made under the national four-Stage process for TU designation and proposed a multi-

campus TU for the South East with campuses in Carlow, Kilkenny, Waterford and Wexford. The Stage 1 SETU application detailed: An agreed Mission and Vision; A joint mapping of 2010 metrics relevant to TU criteria; Agreed 2017 projections to ensure trajectory towards TU criteria; An MOU signed by the Chairs and Presidents of Institute of Technology Carlow and WIT on behalf of their Governing Bodies. Approval was forthcoming from the Minister for Education and Skills in May 2013 to progress to the preparation of a Stage 2 SETU Business Plan.

During the SDC2 timeframe of 2014, and following the suspension of activities' on the SETU project in October 2014 by WIT, the Minister for Education and Skills appointed Mr Michael Kelly to lead a new process of consultation with the Governing Bodies, staff and learners in both Institutes in order to develop a shared vision for a TU in the South East. Mr Kelly sought a vision statement from Institute of Technology Carlow and the Governing Body-approved *Vision Statement for the South East Technological University and Implementation Framework* was presented to him in early 2015 (<http://www.itcarlow.ie/resources.htm>). Mr Kelly's report (<http://www.education.ie/en/Publications/Education-Reports/Engagement-and-Consultation-Process-on-a-Technological-University-for-the-South-East.pdf>) was submitted to the Minister in July 2015 and identified seven unique challenges for the SETU project as follows:

"In the case of the South-East, a number of particular factors are identified locally as adding significantly to the scale of challenge involved. They include:

1. *The inconsistent definition of the region for different purposes, the existence of a number of strong, often competing, urban centres, the north*

(Leinster) and south (Munster) affiliations and a perceived loss of status for Waterford as an administrative headquarters or gateway city, all tend to militate against a strongly unified regional identity, for individuals or institutions.

2. *The previous history regarding application for University status for WIT. The Institute submitted an application in 2005 under Section 9 of the Universities Act, 1997. Stakeholders in Waterford express a strong sense of frustration that previous commitments, as they saw them, had not been honoured. Similarly, they believe that Waterford has 'lost out' on many fronts and that the policy resistance to a conventional university application for Waterford is just another manifestation of this.*
3. *There is little evidence of previous formal collaboration, academic or otherwise, by both Institutes. This may reflect geographic distance as well as previous differences in orientation. It may also reflect the more general regional fragmentation above.*
4. *Equality of esteem has proved difficult to establish, reflecting a widely-held view in WIT that they are already 'at university level'. Many instances of negative commentary, formal and informal, have been unhelpful and hurtful to staff and students and corrosive to the process of collaboration.*
5. *During the period in question, a number of extraordinary events in WIT, including a leadership change and a formal review of its financial affairs, with attendant critical public commentary, subjected the Stage 2 planning process to unexpected stresses and interruption, which have hindered momentum.*
6. *While both Institutes have much in common, each has its own history, strengths, weaknesses and distinctive culture and outlook. Such differences are not unique to the South-East consortium and can usually be accommodated where the values of diversity, complementarity, mutual trust, respect and esteem are recognized. It is a weakness of the process followed to date that this has not been achieved across both institutes.*
7. *The Institutes jointly recognized the scale of the challenge and had made*

application for a level of financial support (to cover external facilitation, change management etc.) based on their assessment of requirements. In the event, it did not prove possible to provide project support on the scale requested. In this, the South-East found itself in the same dilemma as other consortia. A stronger focus on substantive, bottom-up, cross-campus engagement on the design of the new institution will be a requirement of any renewed engagement on TUSE. (The Kelly Report para 3.1 - <http://www.education.ie/en/Publications/Education-Reports/Engagement-and-Consultation-Process-on-a-Technological-University-for-the-South-East.pdf>).

The Kelly report recommended a number of measures which were considered as essential to ensuring the project achieves its goal of creating a TU for the South East. One of the key action points prioritised a preliminary engagement phase, involving the Chairs and Presidents, “to take stock of the new position and agree broad brush strokes of a shared vision for TUSE”. To assist with this the Department of Education and Skills appointed a facilitator for this preliminary engagement phase. Out of this facilitation process during 2015 the following outcomes have been achieved:

- In January 2016 the Governing Bodies of both Institutes met and agreed to recommence work on the establishment of a South East Technological University using the approved 2012 Phase 1 submission as the starting point. Given the currency of the 2017 targets presented in this document, these have been included in the statistical data presented in Appendix 1, alongside SDC1 and SDC2 targets, for comparative purposes.
- The following actions were agreed as initial steps of the engagement process by the two institutions:
 1. Put a framework in place to scaffold the process. This will include an agreed MOU, an agreed independent chair and an oversight committee comprised of members of the Governing Bodies and Senior Executives

of both institutions.

2. Develop a joint vision document for the technological university based on the institutes’ individual vision documents by a subgroup of the two executives and led by the Presidents.
3. Articulate a rationale informed by an external, independent assessment of the likely economic and social impact of the Technological University.
4. Compile a current joint data set for the two institutions to establish current relevant trajectories and identify developmental targets. This will be led by the Registrars with the cooperation of the HEA.
5. Identify and plan for the resource requirements necessary to achieve a fully integrated multi-campus Technological University. This will be informed also by consideration of additional/selected international multi-campus university exemplars.
6. This will include risk analysis and mitigation across all areas including teaching, research, engagement and professional supports.
7. Identify and implement collaborative strategies for accelerating progress towards realising the vision. This will include, but not be limited to:
 - The identification, development and provision of a joint undergraduate fulltime major award.
 - The identification of specific opportunities for collaboration through the South East Regional Skills Forum, South Regional Cluster and Enterprise, Research and Development (ERD) initiatives (such as New Frontiers, TTSI3 etc.) in all counties of the South East. In particular the institutes will look at ways to collaborate in delivering these services in partnership in the counties of Kilkenny, Wexford and Tipperary.
8. An agreed strategy for communications with external stakeholders (including elected representatives) on the Technological University process and the draft legislation.

In November 2015, Institute of Technology Carlow and Waterford IT made a joint submission for funding under the HEA's Scheme to Provide Support for the Restructuring of the Higher Education Landscape. Funding was sought to ensure that the necessary resources become available to increase the pace and breadth of activity needed to ensure the delivery of a South East Technological University. In June 2016, an investment of €1.5m in the South East Technological University Project was announced by the HEA. This investment has been welcomed by both Institutes and will enable the development and implementation of an action plan to lead to Technological University. It is imperative that the legislation required to enable the creation of the Technological University is now also enacted. Within this context, the Institute continues to make significant progress towards meeting national criteria for Technological University designation as is apparent throughout this compact review, and evidenced by more detailed trends and benchmarked analyses presented in Appendices 2-7.

In correspondence to all HEIs on the 23rd May 2016 the HEA outlined a series of general requirements for SDC3. Within this current category of activity (Institutional Consolidation), HEIs were requested to provide a response **Systems and Workload Management**. Institute of Technology Carlow's response to **Systems and Workload Management** addressing the workload management approach, effectiveness, outputs and contribution to accountability and performance is detailed in Table 1.3 (Appendix 1). As discussed in more detail in Table 1.3, this matter should be considered within the context of inequitable ECF targets and core funding allocations across the Technological Sector, for example see Figures 7.11-7.13 (Appendix 7). Institute of Technology Carlow has borne the impact of

the inequities disproportionately as a result of the current funding model and historical-based ECF. The Technological Sector has borne the impact of the inequities disproportionately, directly due to the lack of borrowing framework and, indirectly, as a result of a number of contributory factors including structural rigidities, cohort mix and reduced opportunity for income diversification. The Institute is also anticipating major challenges to its allocation of teaching resources as a result of the recent agreement between the Teachers Union of Ireland (TUI) and the Department of Education and Skills. This agreement states that "*an interim measure will be introduced from January 2017 to re-designate half of the additional flex hours required of each lecturer to wider duties other than teaching, in consultation with the lecturers and in accordance with Institute priorities and needs*". Institute teaching resources have been fully deployed to date so this additional burden will require further teaching resources if ongoing commitments are to be maintained. The Institute is currently meeting the demands of the region with assistance from non-State funding revenue streams, but these are susceptible to market trends and are not a reliable foundation to build the future growth of an institution focussed on Technological University designation.

INSTITUTION OBJECTIVE	PERFORMANCE INDICATOR	BASELINE	INTERIM TARGET, END 2015	PROGRESS AGAINST 2015 TARGET, COMMENTARY AND DATA SOURCE	FINAL TARGET, END 2016	SUMMARY
To progress the development of a multi-campus Technological University (TU) for the South East in partnership with WIT.	Progress through stages for designation as a TU in line with the process set out in the HEA 2012 publication 'Process and Criteria for Designation as a Technological University'.	<p>Memorandum of understanding between IT Carlow and Waterford IT (Appendix 6).</p> <p>Approval to progress to Stage 2 of the published TU process.</p> <p>TU Project.</p> <p>Implementation Board in operation.</p> <p>TU Project Office established in each campus.</p>	Subject to the outcome of the Stage 3 review panel and decisions of the governing bodies of IT Carlow and Waterford IT, to have progressed the implementation of the business plan for the establishment of the TU.	<p>Following the re-engagement of WIT in the TU process in January 2016 Institute of Technology Carlow and Waterford IT completed the preliminary engagement phase, recommended by Michael Kelly in early 2016.</p> <p>A plan had been agreed by both institutes with the intention of making an application for Technological University designation within three years.</p> <p>Funding has been secured from the HEA to fund the next stage of the project as detailed during the 2015 pre-engagement process.</p>	Advanced implementation of business plan for the establishment of the TU.	



Institiúid Teicneolaíochta Cheatharlach



INSTITUTE *of*
TECHNOLOGY
CARLOW

At the Heart of South Leinster

Carlow Campus
Kilkenny Road
Carlow

T: 059 917 5000

F: 059 917 5005

E: info@itcarlow.ie

www.itcarlow.ie