



Waterford Institute of Technology

INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

Strategic Plan

2007-2010





Waterford Institute *of* Technology

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## Strategic Plan 2007-2010

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Tá an leagan Gaeilge den Phlean Straitéiseach  
2007-10 ar fáil ó Oifig na Pleanála Straitéisí  
nó ar [www.wit.ie](http://www.wit.ie).

## Mission Statement

Waterford Institute of Technology will apply excellence in teaching, learning and research within an inclusive student-centred environment to foster graduates of distinction who are ready to take or enhance their leadership role in business, the professions, industry, public service and society. The Institute will manage its hinterland as a Learning Region by empowering knowledge generation and knowledge transfer and is committed to the educational development of the region in a way that is reflective of its national and international aspects. The Institute will contribute to the economic, social and cultural development of the South East region and beyond.

## Foreword

The Strategic Plan 2003-06 and the significant progress that was accomplished by the Institute as a result of that process were definitive and purposeful. As a result the Institute was well positioned and prepared to capitalise on opportunities and to rise to meet challenges. All colleagues across the spectrum of the Institute contributed generously and unselfishly to a complex range of commitments. Perhaps most importantly, that Strategic Plan provided us with a foundation upon which to build the second cycle, the Strategic Plan 2007-10.

The strategic planning process has now been inculcated in the organisation. The establishment of the Office of Strategic Planning clearly demonstrates the importance which is attached to the exercise both internally and externally. These are timely developments. For example, all research bids must be accompanied by strategic plans. These plans are regarded as the barometers by which an institution's effectiveness is measured and perceived. Profile and brand are closely associated with strategic planning. In terms of competition and in terms of progress strategic plans are vital components.

The plan is the process and the process is the plan. A good Strategic Plan will be contingent, responsive and flexible. It will be disposed towards a variety of challenges and a range of imperatives. Between some of these there may even be strong tensions. People

with very differing views will offer a variety of perspectives and opinions within the one community.

It is here that the planning process contributes fundamentally. It facilitates the ongoing capacity of an organisation to develop debate and dialogue in stable ways. It provides for a clear focus of commitment. It attracts a more energetic level of concentration. It can also be the focal point around which the Institute gathers as it seeks to make deeper sense of itself.

More than anything else, strategic plans should seek to differentiate institutions one from the other. Plans should concentrate on defining and achieving that which is uniquely distinctive to them by way of accomplishment and characteristic. All of this will have to do with clustering and webbing the strengths, establishing the coherent nexus, seeing where the connections are. This will have implications for positioning, impact and ongoing development.



Professor Kieran R. Byrne  
Director

# Table of Contents

	<b>Introduction</b>	<b>10</b>
<b>1</b>	<b>The External Environment and the Context of the Strategic Plan</b>	<b>11</b>
1.1	Creation of a knowledge economy	12
1.2	International integration	13
1.3	Quality improvement	13
1.4	Strategic decision making	14
1.5	The student of the future	14
1.6	The University of the South East	14
<b>2</b>	<b>Review of Strategic Plan 2003-06</b>	<b>15</b>
2.1	Introduction	16
2.2	Major achievements in 2003-6	16
2.3	Conclusion	20
<b>3</b>	<b>Major Themes for the Future</b>	<b>21</b>
3.1	Building regional focus through Internationalisation	22
3.2	Empowering a distinctive learner	23
3.3	Organising for growth	23
3.4	Enhancing knowledge generation and knowledge transfer	24
3.5	Maintaining the cycle of strategic improvement	24
3.6	Conclusion	24
<b>4</b>	<b>The Academic Portfolio</b>	<b>25</b>
4.1	Introduction	26
4.2	Building flexibility through the modular system	26
4.3	Undergraduate programmes	27
4.4	Postgraduate programmes	29
4.5	International students	30
4.6	Supporting achievements	31
4.7	Conclusion	32

<b>5</b>	<b>Research, Development and Innovation</b>	<b>33</b>
5.1	Introduction	34
5.2	Centres of research excellence	34
5.3	Development of research clusters	36
5.4	Alliances and partnerships	37
5.5	Building interdisciplinarity	37
5.6	Knowledge transfer	38
5.7	Research degree strategy	39
5.8	Quality assurance and improvement	40
5.9	Graduate profile	41
5.10	Linking research and teaching	41
5.11	Conclusion	42
<hr/>		
<b>6</b>	<b>The Transition from Learner to Graduate and Beyond</b>	<b>43</b>
6.1	Introduction	44
6.2	The graduate profile	44
6.3	The learner as the centre of our activities	45
6.4	Lifelong learning	46
6.5	Network of partners	46
6.6	Conclusion	48
<hr/>		
<b>7</b>	<b>The Learning Environment</b>	<b>49</b>
7.1	Introduction	50
7.2	Staff, learners and the Institute	50
7.3	The culture of learning	51
7.4	Enabling learners through communications and information technology	51
7.5	Beyond traditional boundaries	52
7.6	Output based quality system	52
7.7	Supporting learning	52
7.8	Conclusion	54

# Table of Contents

<b>8</b>	<b>Realignment of Organisation Structures &amp; Processes</b>	<b>55</b>
8.1	Introduction	56
8.2	Structural changes	56
8.3	Changes in governance structures	58
8.4	Human resource strategy	58
8.5	Training and development	59
8.6	Financial systems	59
8.7	Conclusion	60
<hr/>		
<b>9</b>	<b>Physical Development</b>	<b>61</b>
9.1	Introduction	62
9.2	Existing Estate	62
9.3	Capital programme	63
9.4	Student growth and diversity	64
9.5	Engaging the community	65
9.6	Funding	65
9.7	Conclusion	66
<hr/>		
<b>10</b>	<b>Implementing the Plan</b>	<b>67</b>
10.1	Introduction	68
10.2	Implementation structure	68
10.3	Strategic dialogue	69
10.4	Conclusion	69
<hr/>		
	<b>Extended Bibliography</b>	<b>70</b>

# Abbreviations

<b>AMT</b>	Advanced Manufacturing Technology Research Group	<b>MAP</b>	The Institute's modular based system
<b>APEL</b>	Accreditation of Prior Experiential Learning	<b>MCP</b>	Materials, Characterisation and Processing Group
<b>CALMAST</b>	Centre for the Advancement of Learning of Maths, Science and Technology	<b>NQAI</b>	National Qualification Authority of Ireland
<b>CHART</b>	Centre for Helping Access, Retention and Teaching	<b>OECD</b>	Organisation for Economic Cooperation and Development
<b>EI</b>	Enterprise Ireland	<b>ORG</b>	Optics Research Group
<b>HE</b>	Higher Education	<b>PRTL</b>	Programme of Research in Third Level Institutions
<b>HEA</b>	Higher Education Authority	<b>SEEP</b>	South East Enterprise Platform Programme
<b>HEI</b>	Higher Education Institution	<b>SRG</b>	Semiconductor Research Group
<b>HETAC</b>	Higher Education and Training Awards Council	<b>SSL</b>	Solid State Research Laboratory
<b>HR</b>	Human Resources	<b>TSSG</b>	Telecommunications Software and Systems Group
<b>ISOL</b>	Information Systems, Organisational Studies and Learning Research Group (ISOL)	<b>WIT</b>	Waterford Institute of Technology
<b>IUQB</b>	Irish Universities Quality Board		
<b>MALT</b>	Masters in Learning and Teaching		

# Introduction

This document sets out the second strategic plan for Waterford Institute of Technology. It has been developed at a time of substantial change in the landscape of higher education and in the needs of the stakeholder community that we serve. The Institute through the strategic planning process, and this plan which is the manifestation of that process, has established the principles that will guide the Institute through the 2007-10 period and will determine the character and culture by which the Institute will be recognised.

The plan is divided into two parts. The context of the strategic plan is established in Chapters 1, 2 and 3 which sets out the main macro level factors to which the Institute must respond and establishes the capacity of the Institute to deal with these issues based on the achievements in the 2003-6 period. The key high-level strategic goals of the Institute are then set out in Chapter 3. Five principal objectives are established.

- 1** We will develop an internationally relevant and vibrant knowledge region that fosters an international exchange of ideas, technology and people.
- 2** We will continue to create a learner of distinction recognised by the unique characteristics of our graduates and empower them to develop through lifelong learning.
- 3** We will continue to renew and develop appropriate governance, financial and operating structures in line with best international practice to ensure the delivery of our strategic aims.

- 4** We will create new knowledge in partnership with our region and we will help our region use new knowledge to the benefit of economic, social and cultural development.
- 5** We will place quality improvement as the centre of all our activities in an open and transparent manner and we will continually review and enhance our operations.

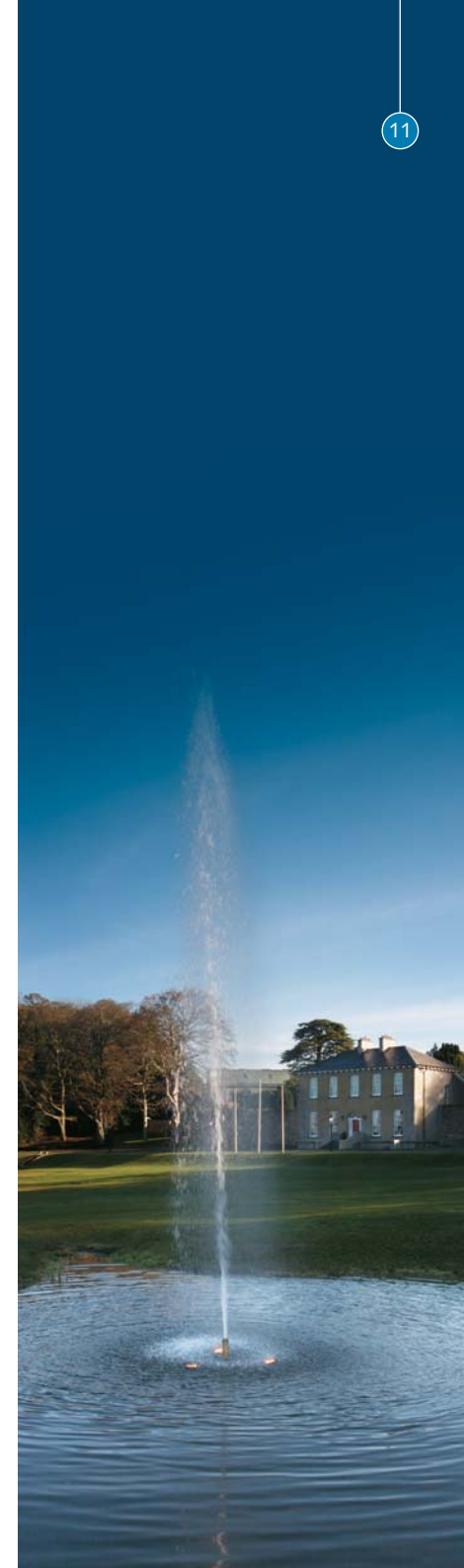
The second part of the plan, Chapters 4 to 10, identifies how the Institute intends to deliver on the high level goals through its academic portfolio, research strategy and through the provision of a learner driven culture and environment. The changes that are required to effect these changes in the structures and processes and the physical environment are then considered. Chapter 10 addresses the process by which the plan will be implemented and the objectives achieved.

This plan is one part of an interlocking planning system at the Institute that requires each organisational unit to engage in annual cycles of planning, review and reflection and the linking of objective setting to quality improvement. The Institute is at a significant juncture in its evolution and is confident that the capacity of the Institute to meet the transitional requirements of its future evolution is strongly embedded in its culture and structures.

Derek O'Byrne,  
Head of Strategic Planning

# Chapter 1

## The External Environment and the Context of the Strategic Plan



# The External Environment and the Context of the Strategic Plan

The location of Waterford Institute of Technology (WIT) on the south eastern seaboard and its role as the principal provider of education in the South East region (almost 70% of higher education students in the region study at WIT) impacts heavily on how the Institute responds to national and international imperatives. The mission of the Institute is to serve its region and to build the relevant infrastructure necessary for economic and social development. Several key challenges are relevant to the Institute in the development of appropriate strategies to achieve this mission.

These are:

- 1.1 Creation of a knowledge economy
- 1.2 International integration
- 1.3 Quality improvement
- 1.4 Strategic decision making
- 1.5 The student of the future
- 1.6 The University of the South East.

## 1.1 Creation of a knowledge economy

An express aim of national education policy is the creation of a knowledge economy. The Government Strategy for Science, Technology and Innovation<sup>1</sup> clearly lays out the need for greater concentration on selected aspects of value and knowledge creation. In addition, the Government has facilitated and supported this strategy through investment in national research infrastructure in the Programme of Research in Third Level Institutions (PRTLII), the investment in science and technology by Science Foundation Ireland, the ongoing development of a Strategic Innovation Fund and the increased emphasis on education in the National Development Plan 2007-13<sup>2</sup>. A key part of this development is the creation of a 4th level Ireland<sup>3</sup>, with emphasis on research and development and indeed to this end the Government has set as a target the doubling of doctoral qualified outputs by 2013<sup>4</sup>. This strategy is well supported internationally and is based on the Lisbon strategy which sets out the target of making Europe a leading knowledge economy. The Lisbon accord also emphasises the need for social cohesion and the need for all of society to participate in the knowledge economy.

The issue of creating a knowledge economy has specific implications for the Institute and the South East region. If the South East is to participate fully in future economic prosperity it must develop the necessary infrastructure (research and development) that will allow it to contribute at national and international levels. As the largest provider of higher education in the region, the Institute must rise to this challenge. The current economic profile of the region, however, underpins the complexity of this task. The region lags behind other Irish regions in terms of disposable incomes and, more importantly, in terms of the percentages of professionals in the workforce. The region has an overdependence on traditional low-end manufacturing and agriculture, industries that are experiencing a substantial decline.<sup>5</sup>

<sup>1</sup> Department of Enterprise, Trade and Employment, (2006), 'Strategy for Science, Technology and Innovation, 2006 – 2013'. Government Publications Office; Dublin.

<sup>2</sup> National Development Plan 2007-13, (2007), 'Transforming Ireland – A Better Quality of Life for All', Government Publications Office; Dublin.

<sup>3</sup> Irish Universities Associations, (2005), 'Reform of 3rd Level and Creation of 4th Level Ireland'. IUA; Dublin.

<sup>4</sup> Department of Enterprise, Trade and Employment, (2006), 'Strategy for Science, Technology and Innovation, 2006 – 2013'. Government Publications; Dublin.

<sup>5</sup> Goodbody Economic Consultants, (2005), 'The Economic Impact of a University of the South East', Waterford Chamber of Commerce; Waterford.

## 1.2 International integration

Integration of higher education systems is being driven by two primary factors. On one hand, European policy, exemplified by the Lisbon Agenda and Bologna Agreement, is driving integration in policy frameworks and in the compatibility and transferability of education in the European Union. On the other hand, however, the competitive forces of a more easily accessible international market, resulting in the commodity of education being more widely traded, have created greater mobility internationally. Higher Education Institutions (HEIs) now operate in a truly international market and must benchmark their offerings in an international arena. Nowhere is this more evident than in Asia where the opportunity for student recruitment is immense.

This creates a specific requirement to ensure that the Institute is exposed to international trends and that staff and students are internationally aware and that this exposure extends into the region. It is a clear requirement of a modern education provider and indeed of a modern knowledge region to participate in the international arena in terms of resource acquisition, student mobility and participation in programme and research provision.

## 1.3 Quality improvement

A number of developments have occurred in the provision of quality frameworks in Ireland and internationally over the past number of years. The harmonisation of the Irish qualifications system by the National Qualifications Authority of Ireland (NQAI) in line with Bologna has occurred. The Institute of Technology sector has come under the remit of the Higher Education and Training Awards Council (HETAC) which under the auspices of the NQAI, implements an accreditation framework. In addition, new quality improvement systems and guidelines are emerging from the Irish Universities Quality Board (IUQB), that are consistent with European and international trends to foster an institutional quality culture and embed quality improvement in the strategic planning process. The importance of quality improvement will be further evidenced by the movement in 2007 of the Institute of Technology sector under the funding control of the Higher Education Authority (HEA).

It is a critical part of the Institute's thinking that the best practice in determining and monitoring quality provision and quality improvement is an essential component of effective future provision in teaching, research and knowledge transfer.

“The designation of the Institute as the University of the South East is the single largest challenge facing the organisation at the start of 2007 and the objective most critical to the future success of the organisation and of the South East region.”

## 1.4 Strategic decision making

The fourth international trend that impacts on the development of the strategic plan 2007-10 is the increasing importance that strategic planning and choice play in the development of an effective higher education system<sup>6</sup>. The Organisation for Economic Co-operation and Development (OECD) has long recognised that diversity of provision, represented by the autonomy of institutions to develop unique strategic foci, is a major contributor to an effective higher education system. The Irish Government has adopted this position by driving greater strategic thinking into budgeting and resource allocation decision-making. Increasingly, funding mechanisms will be designed around strategic achievement. This has several practical implications. Institutions will be required to determine key areas of activities that represent the best use of their existing and future resources and will need to share their skills and competencies with others both to capitalise on their own competencies and, more importantly, to leverage the skills of other HEIs that have themselves unique skill sets.

This need for partnership building based on core competencies is evident in the manner the Government is allocating funding through programmes such as PRTL, the Strategic Innovation Fund and through Science Foundation Ireland and this is consistent with international best practice across Europe.

To embrace this change, the Institute must develop greater strategic competencies in determining the key areas for future investment and in building strategic partnerships both nationally and internationally among its stakeholders, in industry, commerce, the public sector and in education, to build and deliver most effectively on its unique competencies. The need for diversity in education must be promoted through diversity in programmes offered and the concentration of institutions in core areas of curriculum and research.

## 1.5 The student of the future

The higher education system has traditionally focused on the school leaver as its primary client group. However, as the knowledge economy is developing, several changes are now evident. New learner types are entering education. These can range from a learner with a need to update and enhance professional level qualifications to learners who have no formal educational background. Furthermore, advances in technology have resulted in new methods of programme delivery, including e-based and m-based methodologies. The primary implication of these changes is the need to build greater flexibility for learners into programme design and delivery. Learners are seeking greater choice, more ranges in terms of the timing and modes of delivery and in the levels of interdisciplinarity that are provided within programme pathways.

## 1.6 The University of the South East

Finally, the application, in early 2006, by the Institute under section 9 of the Universities Act, to be designated as the University of the South East has a profound effect on the strategic planning and strategic objectives of the Institute. Through this action, the Institute has explicitly defined its intent to serve the South East and has defined the cultural, intellectual, social and moral character by which it judges itself and its societal role.

This character is implicit in the strategic goals established within this plan and the Institute's commitment to rising to the economic and social imperatives is an absolute enabling factor for the delivery of its vision for the South East. The transition to the University of the South East will impact on the Institute in all of its key functions including its governance structures, research activities and profile, its human resource strategy and configuration, its financial and funding structures and its quality improvement activities.

<sup>6</sup> For example, the recent OECD report on Finland.

## Chapter 2

### Review of Strategic Plan 2003-06



# Review of Strategic Plan 2003-06

The first step in developing a strategic plan for 2007-10 is to assess the strategic record of the Institute as a context which defines future capacity and direction. By measuring levels of success against key priorities identified in the Strategic Plan 2003-06, and an analysis of performance more generally, the ability of the Institute to establish and deliver on strategic commitments can be gauged. The value of a strategic plan lies as much in the process of planning, implementation and reflection as in establishing objectives and priorities.

## 2.1 Introduction

The 2003-6 planning period was a particularly busy period in the Institute's development. At the outset, the Institute established ten key priorities for development and can report that all of the priorities have advanced in line with the intent of the plan. In addition to these achievements the Institute also implemented a number of strategic priorities which, while not explicitly stated, were within the spirit of the strategic plan. Principal among these was the decision, in late 2005, to commence the process of seeking university designation for the Institute after significant calls from regional organisations for the Institute to address education infrastructural deficits within the region. The implementation of this decision resulted in Institute and region-wide assessment, dialogue and analysis culminating in the submission for designation as the University of the South East under section 9 of the Universities Act in February 2006.

This strategic plan has been developed with this objective at the core and on the assumption that the Institute will rise to the challenges posed in achieving this objective.

## 2.2 Major achievements in 2003-6

The ten interconnected development areas identified in the strategic plan 2003-6 were:

- 2.2.1 Holistic student-centred quality teaching and learning environment
- 2.2.2 Recruitment, retention and progression of students at all levels
- 2.2.3 Renewal of academic portfolio
- 2.2.4 Modularisation and semesterisation
- 2.2.5 Postgraduate studies
- 2.2.6 Research & development profile
- 2.2.7 Industry collaboration and linkages
- 2.2.8 Lifelong learning: career pathways and continuing professional development
- 2.2.9 Internationalisation
- 2.2.10 Technology.

### 2.2.1 Holistic student-centred quality, teaching and learning environment

A central part of learning is the environment in which the learning takes place and the quality of the learning supports (both academic and personal) that guide the learner emotionally and intellectually through their programme of study. The 2003-6 period is notable for significant developments in enhancing this environment for learners. The period saw the appointment of a quality manager, who will now play a central part in ensuring ongoing development of the teaching and learning quality environment. Building on the appointment of the quality manager to further enhance quality assurance and quality improvement is a key target for the 2007-10 period. In addition the proposed restructuring of the academic areas within the Institute was completed with the creation of new Schools in Education and in Health Sciences. Furthermore, a teaching development unit, located in the School of Education & Professional Development has been established to create programmes and activities specifically designed to develop and disseminate best practice in teaching and learning across all units of the Institute.

The Institute recognises the key contribution of staff. Without the contribution at individual and unit levels, the Institute could not have delivered on its goals. Training and development is a critical part of creating a quality environment and to this end the Institute invested €1.3m in staff training and development supports in 2006 (2.8% of total pay). Furthermore, a training and development coordinator was appointed to ensure the realisation of training and development benefits.

Recognising excellence creates benchmarks and standards for improvement and in this respect the Institute delivered on a number of initiatives. An annual award for Teaching Excellence was established in 2004 through which the community at the Institute (particularly the learner community) can recognise the contribution of individual staff to the culture of excellence in practice. The award

was extended in 2005 to include an award for excellence in postgraduate research supervision. In addition to the recognition of staff excellence, the Institute also created an advanced scholars programme that supports high performing-students to undertake postgraduate research work in the Institute. Excellence in sport has also been recognised with the introduction of a number of sport based scholarships and awards.

The physical infrastructure of the Institute has also changed significantly over the past four years with the addition of new buildings, which include: the Walton Building (information technology centre), the nurse education building, the ArcLabs research centre on the West Campus and significant additional restaurant facilities through the building of the Gallery restaurant. The Institute is also committed to the continued development of the Library facilities and support facilities.

The Institute continued to provide and enhance the range of sporting and cultural opportunities to students throughout the period and perhaps one of the most significant cultural achievements was the opening at the Institute of a permanent exhibition of the Pauline Bewick Seven Ages Collection.

*“The Institute has clearly delivered on its strategic goals for the 2003-6 period and has a strong base for achieving future strategic objectives.”*

### 2.2.2 Recruitment, retention and progression of students at all levels

The Institute supports the principles of broadening and deepening the student base of the Institute and enhancing the rates of retention and progression. Consistent with the objectives laid down in the strategic plan 2003-6, the Institute has succeeded in increasing the total full time student body by 3% over the period 2002/3 to 2005/6, with postgraduate numbers up by 14%. 6000 students now study at the Institute full time. International student recruitment into the Institute has increased and this has enriched the cultural experience of the student body. In the academic year 2005/6, over 400 international and European students were studying at the Institute. In addition, non-standard applications to the Institute continue to increase and 19% of the admissions now come from non-standard routes.

The structures to deepen the capacity of the Institute to anticipate and respond to market needs have also been strengthened with the appointment of a marketing manager, the creation of a schools liaisons unit and the strengthening of the information database on student demographics and preferences.

Of concern to the Institute, however, is the rate of retention which at 72% is substantially lower than the Institute would wish. The Institute appointed a retention officer in late 2006. This will be a major focal point for the 2007-10 plan.

### 2.2.3 Renewal of academic portfolio

The Institute is constantly renewing and developing its academic programmes and the introduction of modularisation is a key strategic objective in providing greater flexibility to the learner. All schools reviewed their programme portfolio during the 2003-6 period and many new developments at undergraduate and postgraduate level were created. Combined, the academic units have developed, at postgraduate level, 24 additional masters' degrees and 12 additional postgraduate diplomas.

A good measure of the quality of the programmes is the extent to which students are successful either in obtaining employment or engaging in further study after graduation. In this respect, the

Institute records one of the highest graduate employment/study records in all of Irish higher education with only 0.2% of graduates seeking employment<sup>7</sup>.

The development of the academic portfolio was further helped by the formation of two new schools during the period, the School of Education & Professional Development and the School of Health Sciences.

### 2.2.4 Modularisation and semesterisation

The introduction of modularisation & semesterisation was a key cornerstone of the 2003-6 plan and the building block for more flexible approaches to learner engagement and to the capacity of developing programmes attractive to international markets.

The first stage of the Institute's new modular course delivery system (MAP) was introduced, under the direction of an Institute-wide steering committee, in September 2005, for all incoming first year students. After a review of progress during 2005/6 the MAP system was rolled out Institute-wide to all years in 2006/7. Currently approximately 80% of all programmes are MAP compatible and the remainder of programmes will become compatible on a phased basis. A full-time coordinator for MAP has been appointed.

The delivery of enhanced flexibility and cost effectiveness in programme design and delivery that accompanies modular structures will only be achieved when the Institute has fully modularised. Creating an appropriate IT systems environment will be necessary to deliver fully on the potential benefits of the modular system. The 2007-10 period will be crucial in continuing the momentum of this change and realising the benefits, such as greater flexibility and choice for learners and increased capacity to provide lifelong and work based learning.

<sup>7</sup> Based on a survey of graduates conducted by the Institute's Careers Office in 2005.

### 2.2.5 Postgraduate studies

The Institute's structures were reconfigured in 2004 with the extension of the responsibilities of an existing senior executive to lead postgraduate studies and the creation of a new unit to support postgraduate research students. During the planning period, HETAC carried out an international review and the Institute was delegated to make awards at levels 9 and 10 in defined areas. In the academic year 2005/6, the Institute had a postgraduate community of 212 students, up from 138 in 2002.

The need for a regulatory framework based on best practical principles was also identified and completed by the Institute's academic council and this was a critical component in the achievement of delegation of authority to make research awards. The Institute has also further developed its training programmes for research students and for research supervisors. The need to seek constant quality improvement in this area, in line with emerging international best practice and the creation of a fourth level Ireland will be a cornerstone of the 2007-10 plan.

The Institute's decision to seek university designation has significant implications for the postgraduate studies portfolio and the capacity of the Institute to grow that portfolio, especially at fourth level.

### 2.2.6 Research & development profile

The Institute appointed a Head of Research and Innovation in 2004 and established the Office of Research and Innovation to assist in the development of research activities and funding proposals. This office has been highly successful and in the academic year 2005/6 has attracted research funding awards of €10.6 million achieved through competitive national and international programmes. The Institute continues to play a leading role in national and international research programmes, such as the EU framework programme and EI commercialisation research programme.

The opening of the Institute's Research and Innovation centre 'ArcLabs' at the West Campus at Carriganore was a key milestone in the research strategy. The Centre, officially opened by An Taoiseach Mr. Bertie Ahern TD, in October 2006, is highly innovative in its combination of basic research activity, entrepreneurship and innovation.

### 2.2.7 Industry collaboration and linkages

The Institute continued to build industrial linkages throughout the 2003-6 period. These linkages occurred both through research and development partnerships and through the provision of specific courses of studies tailored to the needs of specific industries or firms. The Institute is hugely successful in the promotion of new enterprise development through programmes such as SEEPP<sup>8</sup> and in the clustering of industry groups and sectors such as the EnAct and MERGO<sup>9</sup> programmes.

The Institute has substantial commercial linkages through its research centres and will continue to build on these linkages in the 2007-10 period. This is particularly important in the context of the research strategy that emphasises the need for industry linkages as a key component of the research agenda. In terms of the regional context, the nascent growth in the clustering of core regional competencies, particularly in Wexford and Kilkenny, into fourth level activities offer substantial future growth potential.

### 2.2.8 Lifelong learning: Career pathways and continuing professional development

The heritage of provision in lifelong learning has been further extended over the past three years. The School of Education and Professional Development has been created to build further on the success in adult and continuing education. The philosophy of the School is to provide opportunities, at all levels of society, to develop and enhance educational opportunities.

More broadly, the Institute has also initiated a number of programmes aimed at specific industries or firms to enhance qualifications and skill levels. This is particularly relevant in the context of the region and the need to create opportunities for relevant programmes to be accessed by all sectors of society.

<sup>8</sup> <http://www.seepp.ie>

<sup>9</sup> <http://www.mergo.ie>

In this respect, the Institute has continued to successfully develop its business support unit in Enniscorthy; has provided community based outreach education in Waterford City and County; has developed firm specific programmes delivered in Kilkenny, a postgraduate diploma in television production (delivered through Irish) in the Ring Gaeltacht and has delivered an executive MBA programme to managers in Dungarvan town.

The introduction of modular-based credit accumulated programmes is an enabler of lifelong learning, especially in the context of building programmes of career development that facilitate the learner in transition from one life stage to another (such as study to work or employee to manager). In this respect, the Institute has built the foundations for the development of new pathways for assisting the learner in life transitions and will, based on successes to date, develop this further in the next phase of its strategic development.

### 2.2.9 Internationalisation

A commitment to the ongoing development of a bi-directional flow of students and staff between the Institute and its global environment is recognised as a critical part of building an effective learning environment. Throughout the 2003-6 period, the Institute progressed international linkages in Europe, Asia, the United States, and South America. In the graduating class of 2006, 22 countries in addition to Ireland were represented among the 2900 new graduates. Our international full-time student cohort now represents 7% of the total student body. In addition, the Institute continues to attract foreign academics spend time at the Institute and continues to support sabbatical and other leave for staff to spend time in foreign Institutions.

The Institute has a strongly established International Office which serves all students originating from outside of Ireland, from both EU and non-EU countries. The International Office has a staff of 6 full-time and 4 associate staff.

There has been significant growth in the numbers of International students studying at the Institute with a total cohort of 400 students. The intention of the Institute is that these numbers would be optimised at 10% of the total student body. The Institute will continue to strive to achieve this target in 2007-10.

### 2.2.10 Technology

The Institute continued to invest heavily in technology and invested €3.64m in the planning period. In 2005 the Institute opened the Walton Information Technology Building, which greatly enhanced the information technology resources available to students. More progress might have been made in the provision of e-learning although a number of initial programmes are being offered in a blended learning mode.

Technology has also played a significant part in the support of all the services provided in the Institute and has delivered changes in the learning environment (such as WebCT as a teaching and learning interface), in administrative systems such as on-line registration and in management information through more efficient applications.

The need constantly to update and maintain the technology environment is a major ongoing challenge.

## 2.3 Conclusion

The Institute has clearly delivered on its strategic goals for the 2003-6 period and this provides a basis for both building further in the 2007-10 period and the confidence that the Institute's processes are sufficiently mature to establish, monitor and deliver on the targets that it sets.

## Chapter 3

### Major Themes for the Future



# Major Themes for the Future

## High level goal 1

“ We will develop an internationally relevant and vibrant knowledge region that fosters an international exchange of ideas, technology and people.”

Based on the mission of the Institute and the current context, Waterford Institute of Technology has identified five major themes as a framework for the Institute's Strategic Plan for the period 2007-2010.

These are:

- 1 Building regional focus through internationalisation;
- 2 Empowering a distinctive learner;
- 3 Organising for growth;
- 4 Enhancing knowledge generation and knowledge transfer;
- 5 Maintaining the cycle of strategic improvement.

## 3.1 Building regional focus through Internationalisation

While there are many ways to enhance regional development, successful regions are typically those that look outward to the national and international environments for their inspiration. The trend to greater openness in higher education internationally means that benchmarks of quality and performance are internationally recognised and traded. In this respect, the Institute must ensure that all of its activities are benchmarked against appropriate international standards. Moreover, its mission of building a learning region can be delivered only in the context of international standards. Higher education can play a huge role in ensuring a transfer of international knowledge and people both into the region by attracting key investment in technology and people and also out of the region through exporting the unique competencies of the region. In this respect we have set high level goal 1 for 2007-10.

### 3.2 Empowering a distinctive learner

A key output of any higher education institution is the graduate. The graduate leaves the Institute with a set of skills that combine knowledge, intellectual capacity and personal development. The Institute believes that the experience of any learner in the Institute should build in them a core set of attributes. These attributes, which were established in the 2003-6 plan (and outlined in more detail in Chapter 6 of this plan), form the basis of a unique and distinctively recognisable WIT graduate. Furthermore, the Institute recognises that the relationship between graduate and the Institute should extend beyond graduation day and that in creating a disposition toward lifelong learning in all our graduates, the Institute must also take responsibility for providing appropriate opportunities for our graduates to develop their knowledge, intellectual and interpersonal capacity. In this respect we have set high level goal 2 for 2007-10.

### 3.3 Organising for growth

The Institute recognises that ensuring an appropriate environment in terms of resources, structures and role responsibilities is central to the achievement of the goals established by the Institute. In this respect, it must adopt appropriate resource and physical development plans consistent with its ambitions. Developing an appropriate environment is also a significant contributor to quality improvement and ensures delivery of services at the highest levels. The 2007-10 period will be characterised by considerable change as new technologies and competition create new challenges and the ambitious plans developed in terms of capital development and new financial and governance structures will require reconfiguration of the Institute's governance, operating and resource allocation structures. The Institute must strive to maintain the currency of its organisation. In this respect we have set high level goal 3 for 2007-10.

#### High level goal 2

*“We will continue to create a learner of distinction recognised by the unique characteristics of our graduates and empower them to develop through lifelong learning.”*

#### High level goal 3

*“We will continue to renew and develop appropriate governance, financial and operating structures in line with best international practice to ensure the delivery of our strategic aims.”*

#### High level goal 4

“ We will create new knowledge in partnership with our region and we will help our region use new knowledge to the benefit of economic, social and cultural development. ”

#### High level goal 5

“ We will place quality improvement at the centre of all our activities in an open and transparent manner and we will continually review and enhance our operations. ”

### 3.4 Enhancing knowledge generation and knowledge transfer

The creation of 4th level Ireland is a central part of government policy. The Institute has an established research infrastructure and a track record in delivering research and development. The increasing importance of this area to the development of the region requires ongoing enhancement of the research capacity. Moreover, the region has substantial pockets of specialist skills embedded in regional centres that are capable of being developed further in partnership with the Institute. The Institute is committed to developing and enhancing knowledge-based activities in all areas of the region. This requires the Institute to enhance its partnerships and networks throughout the region and to create new mechanisms for the transfer of knowledge both into and out of the Institute. The Institute recognises that knowledge creation occurs in many settings and that the most appropriate approach to enhancing knowledge creation, dissemination and application is deep, co-dependent partnership. In this respect we have set high level goal 4 for 2007-10.

### 3.5 Maintaining the cycle of strategic improvement

The last planning period saw the establishment of an Office of Strategic Planning at the Institute and the appointment of a Quality Manager. This planning period will further develop on this resource, in particular to maintain and develop the cycle of strategic improvement. The introduction of a measurable outcome based system of quality management for all learners will be introduced in this planning period, as well as introducing ongoing improvements to the recruitment of students and the delivery and assessment of programmes. Ensuring an effective quality assurance and improvement system is a central challenge to all HEIs. In this respect we have set high level goal 5 for 2007-10.

### 3.6 Conclusion

This chapter sets out the high level goals that the Institute is seeking to achieve in 2007-10. The following chapters provide a detailed list of activities that will be undertaken by the Institute to achieve these high level goals.

# Chapter 4

## The Academic Portfolio



WALSFORD
School of Business
School of Education
School of Engineering
School of Health Science
School of Humanities
School of Science

# The Academic Portfolio

## 4.1 Introduction

Responding to changing societal needs for new programmes and new discipline configurations is a core challenge in higher education. The Institute recognises the need to build an academic portfolio that responds to the needs of its communities but which is also capable of changing in line with the emerging needs of new discipline areas and regional skill development requirements. This is particularly relevant in terms of the capacity of the Institute to work closely with regional industry and commercial interests to deliver higher value process, particularly at fourth level, that fosters international competitiveness.

To deliver on these goals the Institute will address five key areas:

- 1 Build a flexible curriculum structure through modularisation that will facilitate both learner flexibility, multiple delivery modes and enhance potential for lifelong learning;
- 2 Continue to develop an undergraduate portfolio that is relevant to the region and which will maximise value to the learner and to the region;
- 3 Further develop postgraduate level programmes to provide career enhancement to our graduates and to meet the wider needs of the region;
- 4 Increase the number of international students at the Institute to enhance diversity and build international presence in the region;
- 5 Recognise excellence in teaching and learning to foster a climate of continual development of excellence.

## 4.2 Building flexibility through the modular system

Developing and implementing a modular programme structure was a key achievement in 2003-6 and this success allows the development of more flexible and student-centred learning capacity to be delivered in 2007-10. Specifically, the Institute will

- 1 harness the modular structure to give greater choice to learners in the range of modules they can select;
- 2 facilitate cross-disciplinary studies and in particular develop pathways and structures for multidisciplinary programmes;
- 3 facilitate flexible modes of learning and assessment;
- 4 ensure compatibility of the module structure with national, European and international frameworks and quality assurance standards to enhance the potential for student mobility both into and out of the Institute;
- 5 facilitate the delivery of work-based and distance education;
- 6 review the system of new programme development to ensure maximum flexibility in new programme design consistent with the highest standards of quality assurance and to use the credit accumulation to enhance lifelong learning and resource and cost efficiency;
- 7 develop appropriate information systems and administrative structures to support the modular system.

### 4.3 Undergraduate programmes

A vibrant and relevant undergraduate portfolio is key in attracting and developing learners. In this respect the Institute is committed to constant review and development of its portfolio. Total undergraduate numbers in the period 2003-6 grew by 3% as per Table 1.

- 1 The Institute has maintained strength in the Schools of Business, Humanities, Engineering and Health Sciences with an overall growth of 13% but has suffered in line with national trends in the School of Science, which shows a decline of 10% as per Figure 2.
- 2 The 2007-10 period will, however, see growth in all areas of the Institute. Growth will be constrained by the pace of physical development of space, the Institute's resource base and the need to ensure an appropriate configuration of programme offerings. In this respect the planned growth will see undergraduate student numbers grow to 6,300 from a current base of just over 5,700, a growth rate of 9% over the period to 2010. Table 1 & Figure 1 show the breakdown of this growth.

To ensure the achievement of these undergraduate growth targets the Institute will

- 1 continue to create and develop programmes of study that are relevant to the regional needs and competencies;
- 2 strengthen awareness amongst all potential student types of the programmes on offer and the relevance of the programmes to their future career objectives;
- 3 continue to develop access and non-standard level entry mechanisms, increasing the proportion of all non-standard full-time entrants from 19% to 25% over the next four years;
- 4 improve access in regional areas by providing outreach facilities where possible;

- 5 improve retention rates and offer greater opportunities for continuing education and lifelong learning;
- 6 facilitate interdisciplinary programme development;
- 7 review programmes as part of a quality improvement cycle to ensure ongoing currency of the programme portfolio;
- 8 reallocating existing capacity to new areas;
- 9 create a framework for approval of new programmes that includes strategic and financial approval;
- 10 establish a group to assess strategic and financial viability of new programme development.

#### 4.3.1 Apprentice and Fáilte Ireland provision

The Institute is committed to the provision of apprentice education and the provision of Fáilte Ireland programmes in line with the objective of providing a full spectrum of awards to support the region and national needs. In 2005/6, the total Fáilte Ireland and apprentice enrolments reached 892 and in this respect the Institute is committed to continuing investment in these areas and has identified needs for new programmes in the area of Plumbing.

Total numbers on apprentice and Fáilte Ireland programmes have remained strong in the 2003-6 period and provide the Institute with a strong base on which to grow.

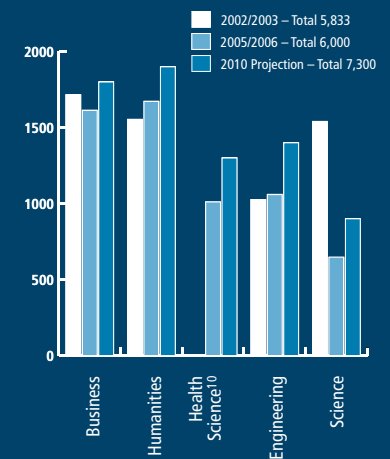
#### 4.3.2 Undergraduate programme development

The Institute has identified a number of undergraduate programmes that will be developed in the 2007-10 period for each academic unit and these are outlined in Table 2 overleaf. The process of portfolio renewal also highlights programmes which are no longer attractive to learners or employers and in respect of these programmes the Institute will consider whether these programmes should be ceased, combined with other programmes or renewed.

**Table 1**  
Full-time Student Enrolments by Award Level

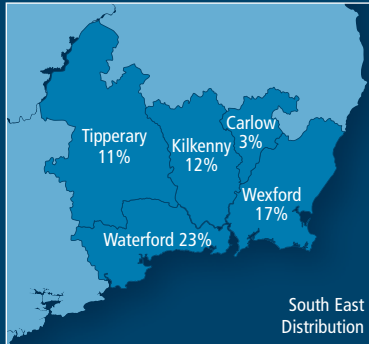
Type	'02/3	'05/6	2010 Projection
Postgraduate	209	237	1,000
Bachelor Degree (H)	2,207	2,679	4,000
Bachelor Degree (O)	1,789	1,840	1,200
Higher Certificate	1,628	1,244	1,100
<b>Total</b>	<b>5,833</b>	<b>6,000</b>	<b>7,300</b>

**Figure 1**  
Full-time Student Enrolments by School



<sup>10</sup> The School of Health Sciences was formed in 2004.

**Figure 2**  
Domiciliary Origin of all our  
Students 2005/6 <sup>11</sup>



County/ Country	2005/6	%
Waterford	1326	23
Wexford	1049	17
Tipperary	685	11
Kilkenny	735	12
Carlow	196	3
Total SE Region	3991	66
Rest of Ireland	1544	26
EU States	205	3
Non EU States	260	5
Total	6000	100

**Table 2** Key Plans for Undergraduate Programme Development by School

School	Key plans for programme development
Business	The School will strengthen programmes in the areas of finance and investment and create greater choices for interdisciplinary programmes particularly with the School of Health Sciences. The School will also create a level 7 general programme in business to offer wider entry choices.
Education & Professional Development	The School will create new programmes in the areas of adult education and will work with local industry to build industry specific awards. Postgraduate awards in professional development and greater interdisciplinary programme choices will also be created.
Engineering	The School will strengthen its architecture portfolio and build new programmes in quantity surveying and building services engineering.
Health Sciences	The School has plans to develop a range of programmes both within the School and in partnership with other Schools. These will include nursing, social, personal and health education, health services management, healthcare ethics, pharmacotherapy, population and community health, sports management and psychology.
Humanities	The School of Humanities will create a number of new programmes across all three of its departments. These will primarily include new programmes in culinary arts, creative and performing arts, community work, sociology and psychology and social care.
Science	The Department of Chemical and Life Sciences has identified a number of programmes in the areas of environment, food, agriculture and forestry as well as biomedical sciences that will be developed in 2007-10. In the Department of Computing, Maths and Physics additional programmes will be presented in forensic computing, games technology and greater access opportunities will be created through the creation of a level 7 programme in applied computing

### 4.3.3 Regional provision

The Institute is a regional provider and in that respect a clear mark of its success is the extent to which it draws its student base from the region. Figure 2 indicates the current profile of the origin of the student body.

The Institute will continue to target its provision to the South East regional community with the explicit aim of increasing participation rates among the school-leaving cohort in the South East. Existing rates of participation stand at 54% while national averages are at 55% as per Figure 3.

The Institute will continue to develop regionally relevant programmes and to work with schools to increase participation to at least national averages. The regional breakdown identifies Waterford and Kilkenny as critical areas where participation is well below average.

### 4.3.4 Diversity

The Institute recognises the need for diversity in its student body and in the cultural experiences of the learner. In this respect, the Institute is committed to building a diverse student group, one that is particularly international in composition. A target is that 10% of the full time learner cohort will be of international origin by the year 2010.

The demand for different levels of programmes is also changing and as Ireland creates the knowledge economy, school leavers are being encouraged to progress to level 8 rather than graduate with a level 7 or level 6 award. The Institute is committed to offering a full range of entry programmes consistent with its current offerings and must recognise the changing demand pattern. In this respect, the composition of the learner body will change over the coming years with greater emphasis on Level 8 *ab initio* programmes. The Institute is, however, committed to having level 6 and level 7 entry programmes in all academic schools.

Increasingly learners are also seeking shorter term minor awards that enhance or upskill existing qualifications or build career direction in new ways. The Institute is committed to providing opportunities to learners to take single modules or groups of modules for individual certification to support the widest possible learner community. This is a particularly relevant issue for part-time learners who require greater flexibility in the choice and delivery of modules.

A final constituent in the diversity of the learners and the academic portfolio is the Institute's commitment to the inclusion of a demographically diverse student group. The importance of the inclusion of lower socio-economic cohorts in higher education is a driving force within the Institute and a great need within the region. The poor participation rate of the region in higher education is underpinned by the socio-economic demographics. To address this issue the Institute must develop community outreach programmes and support learning in the community at an early stage through its programmes in Centre for Helping Access, Retention and Teaching (CHART) and Centre for the Advancement of Learning of Maths, Science and Technology (CALMAST) and inculcate pride in educational achievement at all levels through the recognition of achievement.

#### 4.4 Postgraduate programmes

The Institute has expanded its postgraduate offerings substantially over the 2003-6 period and this growth is expected to continue in 2007-10. Table 3 sets out the growth details and the projected numbers for 2010.

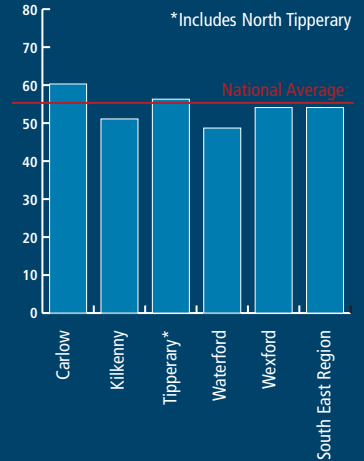
The need for postgraduate qualifications, especially those that emphasise research and knowledge creation, are critical to the region if it is to have an adequate supply of intellectual capital capable of generating innovation, attracting inward flows of people and technology and investment. To achieve these postgraduate growth levels the Institute will

- 1 increase the number of taught programmes at masters level (see list below);
- 2 create a graduate School of Business to support executive and professional postgraduate education;
- 3 increase numbers on taught masters by facilitating part-time learners and by providing masters bridging courses for international learners;
- 4 introduce professional doctorates in the Schools of Business and Education & Professional Development;
- 5 strengthen research clusters to increase funding opportunities for students at PhD level;
- 6 build on regional competencies and specialisms in partnership with regional industry and enterprise, and in line with national funding objectives, to increase the levels of research being conducted in-company;
- 7 develop postgraduate centres of excellence in Kilkenny and in Wexford;
- 8 increase capacity to supervise research programmes at level 10 by supporting staff development programmes;
- 9 develop a new financial model for levels 9 and 10 programmes.

#### Postgraduate programme development

The Institute has identified a number of postgraduate programmes that will be developed in 2007-10 and these are summarised in Table 4 overleaf.

**Figure 3**  
Participation Rates by County in 2004<sup>12</sup>



**Table 3**  
Proposed Postgraduate Student Growth & Profile 2010

School	'05/6	2010 Projection
Business	99	270
Engineering	37	100
Humanities	21	205
Health Sciences	13	175
Science	42	250
<b>Total</b>	<b>212</b>	<b>1,000</b>

<sup>12</sup> Higher Education Authority, (2006), 'Who went to College in 2004? A National Survey of New Entrants to Higher Education', Government Publications Office; Dublin.

**Table 4** Key Plans for Postgraduate Programme Development

School	Key plans for programme development
Business	Expansion of programmes in executive education to include branding and corporate reputation and the creation of a professional doctorate qualification in business.
Education & Professional Development	Creation of new courses in teaching of maths and science for primary school, and the creation of a new programme in Health & Safety. A professional doctorate in education will also be developed.
Engineering	The creation of new programmes in manufacturing engineering to strengthen existing provision.
Health Sciences	Substantial new development will occur in the areas of nursing, health services management, pharmacotherapy, population and community health and sports management. New areas in sports management will also be explored as will interdisciplinary options with other schools.
Humanities	Creation of new programmes in social studies, criminal law, music, heritage and the healing arts.
Science	Creation of new programmes in financial mathematics, analytical science and quality management as well as bio-technology and bio- and health- informatics.

### Doctoral specialisms

Specific PhD programmes will be offered across all six schools in line with the specific research competencies and principal research groups in each area. The primary research centres of excellence and research clusters are set out in chapter 5.

## 4.5 International students

During the last strategic planning period the Institute has established an International Office with five full time employees, two academics who have taken responsibility for particular segments of work, three consultants based in Asia and a network of over fifty agents worldwide. This office has acted as a catalyst and it works closely with the entire academic community to facilitate a range of activities which extend the Institutes international outlook. In 2007-10 the International Office will:

- 1 provide leadership through market research and advise on the design and management of programmes appropriate to internationalisation and the subsequent recruitment of international students;
- 2 play an active role in national policy making in respect of international student recruitment and in the marketing of education, broadly, international markets;
- 3 support the academic units in ensuring a target of 10% of the student cohort is of international origin by 2010;
- 4 promote international mobility of the Institute staff and of the learner community and assist in international exchanges of staff and students both inward (for example visiting professors and researchers) and outward (for example, study visits, conference attendance) by providing administrative and financial support for international mobility;
- 5 support the international learner to enable them manage the regulatory, financial and emotional challenges of studying in a foreign environment;
- 6 target a number of new markets for potential growth including Saudi Arabia, Kazakhstan, Mexico, and Brazil;
- 7 continue to build on the existing markets in Asia, former soviet republics, and Eastern Europe

## 4.6 Supporting achievements

An important cultural value to embed in the Institute is the recognition of high quality performance in all areas of the Institute's community. Staff and students in the Institute regularly perform at the highest levels. The Institute will recognise achievement in a number of ways throughout 2007-10. These include

- 1 continuing to recognise excellence in teaching and research supervision through an appropriate award structure;
- 2 continuing to recognise excellence in student performance through appropriate scholarship and awards structures and the development of new awards and scholarships. These will recognise academic, sporting and community excellence.

There is also a need to support the learner by increasing their capacity to achieve excellence in their academic and personal lives. The Institute will do this in a number of ways:

- 1 Provide a comprehensive student support structure through the offices of CHART;
- 2 Foster a culture of participation in sporting, cultural and social events;
- 3 Apply the graduate profile as the standard to which all programmes must contribute;
- 4 Provide a system of updating qualifications and professional skills throughout the learner's life stages.

Recent reports<sup>13</sup> on retention rates in higher education generally recognise that a national problem exists in ensuring that learners who commence a programme actually complete. Analysis confirms that the Institute is in line with national trends and accordingly this issue has been identified as a significant area for improvement throughout 2007-10. The Institute will

- 1 harness the work of the retention officer to enhance retention reporting issues and to design and implement strategies for improving retention;
- 2 adopt a target of not less than 90% retention across all programmes by 2010;
- 3 include reports on retention as a mandatory part of all annual reports by academic units;
- 4 continue to strengthen supports for students who encounter problems that may prevent them from completing their programme of study.

<sup>13</sup> A study carried out for the Council of Directors of Institutes of Technology and Dublin Institute of Technology, (May 2006), 'Completion rates for students taking full-time programmes of study in Institutes of Technology'.

## 4.7 Conclusion

This chapter supports the high level strategic goals in the following ways.

STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
<b>Building Regional Focus through Internationalisation</b>	The flexibility and portability of the modular system. Bringing international students into the region and creating a South East regional community	Diversity of student body. Numbers of modules delivered regionally.
<b>Empowering a Distinctive Learner</b>	Enhancing programme choices – MAP. Programme links to graduate profile. Supplying a knowledge economy with relevant skills	Standards set in new programme development process. Demand for programmes and employability of graduates
<b>Organising for Growth</b>	Interdisciplinary programmes. The further exploitation of MAP. Access and non-standard level entry mechanisms.	Range and numbers of interdisciplinary programmes and diversity of entrants
<b>Enhancing Knowledge Generation and Knowledge Transfer</b>	The translation of research competencies into specialist programmes/modules. Develop postgraduate centres of excellence in Kilkenny and Wexford. Opportunity for learners to take single modules or groups of modules for individual certification.	Development of programme portfolio as indicated and the creation of regional points of knowledge transfer.
<b>Maintaining the Cycle of Strategic Improvement</b>	Programme approval process strengthened. Relevance of programmes and research to industry.	Delivery on programmes. Take-up rates on proposed programmes and employability of graduates.

# Chapter 5

## Research, Development and Innovation



# Research, Development and Innovation

## 5.1 Introduction

The importance of a knowledge society to Ireland's future economic and cultural prosperity is well established at national policy levels<sup>14</sup>. The Institute's research strategy is designed to support the creation of a knowledge society by leading the South East region in building the appropriate infrastructure for the region to create centres of research, development and innovation that will be unique in Ireland and which will be capable of attracting resources and investment from the international arena. To achieve this, the research strategy of the Institute must

- 1 prioritise and invest in centres of research excellence to enable them to maximise impacts and inward investment;
- 2 stimulate the development of research and cluster activities to maximise the opportunities for research groups to create appropriate critical mass;
- 3 enhance and build relationships and partnerships with stakeholders in industry, academia and the public sector to increase combined research capacity and strengthen the commercialisation process;
- 4 build mechanisms to link intra-organisational activities and foster greater interdisciplinarity among academic units;
- 5 foster mechanisms of technology and knowledge transfer both out of and into the Institute;
- 6 continue to deliver a research degree strategy that enables postgraduate students to achieve their potential and which supports the overall research strategy of the Institute;
- 7 create an integrated research and postgraduate studies quality assurance framework compliant with international best practice;
- 8 support the academic units in delivering on the research element of the graduate profile;
- 9 strengthen the link between research and teaching.

The Institute's research philosophy is to foster a research culture and support a research continuum from blue skies research to commercialisation. Over the period of the last strategic plan, the Institute has identified a repeatable system for the generation and commercialisation of research while ensuring continued access to research funding. Research funding has doubled year on year in the 2003-2006 period reaching €10.6m in 2006.

The Institute has developed a model for structuring research within the college that divides research into four groups:

- 1 Centre of excellence;
- 2 Interdisciplinary research clusters;
- 3 Research groups;
- 4 Self-tasked researcher.

## 5.2 Centres of research excellence

Centres of excellence are characterised by their international reputation, strong links to industry, the international academic community and are self-funding.

A centre of excellence exists when it has:

- 1 a strong international publications track record;
- 2 a strong funding track record;
- 3 a coordinating management body that provides researchers with assistance to prepare bids and manage projects and which fosters levels of interdisciplinarity to the group;
- 4 the potential for sustainable development through external funding and/or commercialisation of its research outputs;
- 5 a capacity to add value to the Institute's overall research strategy;
- 6 financial sustainability;
- 7 an ability to contribute to regional and national economic development;
- 8 a strong postgraduate learner community.

<sup>14</sup> National Development Plan 2007-2013, (2007), 'Transforming Ireland – A Better Quality of Life for All', Government Publications Office; Dublin.

A number of centres have been designated as the areas for prioritised treatment and development. The Institute has designated three Centres of Research Excellence:

- 1 Telecommunications Software and Systems Group (TSSG)
- 2 Eco-innovation, pharmaceutical science & molecular biotechnology centre
- 3 Health.

### 5.2.1 Telecommunications Software and Systems Group

Telecommunications Software and Systems Group (TSSG) is a world leader in telecommunications services. TSSG has over 60 permanent Research and Development staff divided in to basic research and applied research. The TSSG incorporates an applied research centre called the Converged Intellectual Property Communications Services (3CS), which has another 40 staff members, engaged in the commercialisation of research. Over ten years it has secured over €30m in funding from HEA PRTL Cycle 3, Science Foundation Ireland, European Framework 6 and Enterprise Ireland. It has established formal research relationships with a number of leading international research centres including groups at National University Singapore, Nanyang Technical University Singapore, Technical University of Berlin, Hamilton Institute Maynooth, and Trinity College Dublin. It has developed a telecommunications taught masters programme and graduated over 30 postgraduate research students. It has a joint postgraduate supervision programme with researchers at National University of Singapore and Nanyang Technical University.

TSSG has strong links with the telecommunications industry including Motorola, Thales, BEA, Oracle, T-Mobile and Vodafone. It has established three campus companies and has created one joint venture with external entrepreneurs. Its director has been a member of the Irish Council for Engineering, Science and Technology (IRSCET) and has served on numerous government and European expert groups.

### 5.2.2 Eco-innovation, pharmaceutical science & molecular biotechnology<sup>15</sup>

The eco-innovation, pharmaceutical science and molecular biotechnology centre has reached sufficient critical mass to be designated as a research centre arising from the connectivity between the eco-innovation and the pharmaceutical science and molecular biotechnology research disciplines. The centre spans the activity of the Department of Chemical and Life Sciences.

Collectively the members have secured more than €4m from a variety of research sources including the SFI, HEA PRTL Programme, the Health Research Board, and TSR Strand 3 & 1, the Environmental Protection Agency, Enterprise Ireland's Innovation Partnership Programme and the EU's Interreg programme. In total the centre has graduated 18 PhD and 2 masters students and is supervising 23 MSc/PhD students and 3 postdoctoral fellows.

The centre has two strands:

- 1 **Eco-innovation:** This thematic area draws on the ongoing multi-disciplinary research in the areas of sustainable agriculture and forestry, estuarine science, molecular biology and analytical science. There are key strategic partnerships in this field with national collaborators such as the Environmental Protection Agency, Teagasc, Coillte, the Marine Institute, NUI Galway and UCC in addition to international partners including the Institute of Chemistry, Chinese Academy of Science, Memorial University Newfoundland and Queens University Belfast.

<sup>15</sup> These areas incorporate the following research groups, bioremediation and biocatalysis, estuarine research group, forestry, separation science, macular pigment research, molecular ecology, surface & interfacial chemistry.

## 2 Pharmaceutical science and molecular biotechnology research:

Building on the Institute's significant research expertise in the area of pharmaceutical science and molecular biotechnology and its associated partnerships with the pharmaceutical industry and relevant academic partners, the Institute has identified this area as a key thematic area to be further enhanced over the next period 2007-10. Ongoing development based on expertise, resources and alliances fall under three main strands: formulation (incorporating ocular drug delivery and polymeric drug delivery), novel analytical methodologies (focusing on process analytical technologies and separation science) and thirdly, molecular biotechnology (concentrating on biocatalysis for chiral synthesis and therapeutic gene and protein expression).

### 5.2.3 Health

The Institute has a number of research groups looking at aspects of health science across the Institute. These include:

- 1 cancer research;
- 2 community care and nursing;
- 3 health behaviour and promotion;
- 4 addiction research.

These groups provide significant opportunities for clustering the research into a centre of excellence. Combined the individual research groups have strong links to regional and national teaching hospitals with a number of leading consultants managing research groups within the Institute. The development of a centre of excellence in health is a key priority for the Institute over the period of this strategic plan.

## 5.3 Development of research clusters

In addition to the centres of excellence, the Institute has a number of research clusters. Research clusters are centres of research that have the potential to develop into centres of excellence. They tend to be transdisciplinary research groups focusing on areas of strategic importance. The main objective is to evolve each cluster into a centre of excellence. The established clusters are:

- 1 Social and Family Research;
- 2 Flexible Wireless Communications and Large Scale Simulation Research Group;
- 3 Materials, Characterisation and Processing Group (MCP) including the South East Applied Materials Research Centre (SEAM);
- 4 Waterford Crystal Centre for Marketing Studies.

The Institute will develop an investment plan to support the development of new clusters, which can meet the strategic research priorities of the Institute. New clusters are also expected to evolve during the period of this plan and these include:

- 1 Advanced Manufacturing Technology Research Group (AMT);
- 2 Automotive Control Group;
- 3 Centre for eLearning Technologies Research (weLearnT);
- 4 Centre for Entrepreneurship;
- 5 Centre for Newfoundland and Labrador Studies;
- 6 Optics Research Group (ORG);
- 7 Semiconductor Research Group (SRG) & Solid State Research Laboratory (SSL).

The Institute is also committed to the development of research groups across the Institute as an instrument of future growth and individual excellence. The Institute acknowledges the substantial contribution of research groups in the Schools of Humanities, Business, Education and Professional Development, Engineering, Health Sciences and Science. The strategy for growth of research groups is outlined in the strategic plans of each School.

## 5.4 Alliances and partnerships

Central to the Institute's research strategy is the concept of knowledge development as interactive and collaborative. The Institute recognises the need to build sustainable partnerships to create and commercialise new knowledge in line with what Gibbons and the World Bank<sup>16</sup> called Mode 2 knowledge, which is characterised by

- 1 Knowledge produced in the context of application;
- 2 Transdisciplinarity;
- 3 Heterogeneity and organisational diversity;
- 4 Enhanced social accountability;
- 5 More broadly based systems of quality control.

The Institute's research model therefore emphasises

- 1 that the outcomes of our research work involves an end-user community;
- 2 a multidisciplinary approach to addressing research challenges;
- 3 a delivery path between knowledge creation, innovation and technology transfer;
- 4 assessment of the quality and impact of the research is by a broad community of academic, industry, users and funding agents, but that this must include traditional academic metrics such as peer reviewed journal publications.

In the context of our research priorities and our role as a catalyst for regional economic development the Institute will focus on building alliances with key external stakeholders. The stakeholders include

- 1 National and international research centres;
- 2 Government and funding agencies;
- 3 Industry partnerships.

## 5.5 Building interdisciplinarity

Interdisciplinary research is "research that involves the interaction among two or more different disciplines" and occurs at the interface between disciplines. The ongoing trend for greater interdisciplinarity in many research areas is widely recognised internationally and is a strong component of the Mode 2 knowledge creation that lies at the heart of the Institute's research model. The Institute is accordingly committed to enhancing interdisciplinary structures and processes and will achieve this through a number of actions including

- 1 encouraging the foundation of interdisciplinary research groups and clusters;
- 2 appointing staff in each academic area to coordinate interdisciplinary activity;
- 3 promoting interdisciplinarity through the targeted allocation of funding;
- 4 building greater numbers of and deeper industry-academia interfaces;
- 5 providing training and support to researchers.

<sup>16</sup> Gibbons, M., (1998), Higher Education Relevance in the 21st Century. The World Bank; Washington

“ The development of the knowledge economy is one of the key challenges and opportunities facing Ireland ”

– Strategy for Science, Technology and Innovation 2006-2013.

## 5.6 Knowledge transfer

In keeping with emerging approaches internationally, knowledge transfer is defined by the Institute as an ‘engagement’ with a diverse range of public and private organisations in a two-way, mutually beneficial process. As a result of the continuing growth in the Institute’s research and knowledge transfer activities a number of key challenges must be faced. These include the need for

- 1 clear structures and processes to manage knowledge transfer in an increasingly complex and changing environment;
- 2 a more strategic approach to knowledge transfer and external partnership management in order to maximise the full potential of activities;
- 3 strengthening management information systems to track, support and monitor the engagement with external organisations;
- 4 an appropriate culture supporting responsiveness to external drivers and active engagement;
- 5 staff development programmes to enable and incentivise staff to engage in the creation and transfer of knowledge.

These issues have led the Institute to create four strategic themes for knowledge transfer (listed in paragraphs 5.6.1 to 5.6.4). Over the period of this strategic plan the Institute’s existing research support infrastructure will be enhanced through the appointment of a technology transfer specialist in 2007. This will enable the Institute to more effectively capture, protect and manage intellectual property, professionalise its delivery of technology to industry, support campus spin-outs and broaden its routes to commercialisation.

### 5.6.1 Embedding a supportive environment for the creation and transfer of knowledge

The Institute will create an environment within the Institute, which encourages and supports the creation and transfer of knowledge and technology. We will ensure that

- 1 A well-developed and clearly-understood institutional policy on intellectual property is published and widely available;
- 2 An environment and institutional framework is created which supports a culture of partnership and rewards the creation, management and exploitation of intellectual property and knowledge;
- 3 Training in intellectual property management knowledge, exploitation and commercialisation is available to all researchers.

### 5.6.2 Strengthening partnerships with the wider community

The Institute will build a comprehensive knowledge transfer network in which the Institute will act as a ‘knowledge broker’, to support competitiveness and innovation. This involves building collaborative partnerships with a wide range of public and private organisations and embedding a culture and heritage of collaboration. The Institute will take a strategic approach to developing partnerships, ensuring that partnerships reflect the Institute’s core strengths and that they deliver value regionally, nationally and internationally. The Institute further recognises the importance of alumni in the knowledge transfer process and that an effective form of knowledge transfer occurs through graduate interfaces with industry.

### 5.6.3 Supporting the knowledge transfer process and technology

The Institute will create a support framework to facilitate the rapid and smooth delivery of knowledge and technology transfer. The Institute will achieve this by

- 1 appointing a team of knowledge transfer professionals to support knowledge transfer;
- 2 creating forums where academic and business interaction to exploit intellectual property or build collaborative research projects can occur;
- 3 providing a programme of industry-focused services, including consultancy, industry training, joint academic-industry partnerships and industry placements;
- 4 supporting access to national and international funding sources.

### 5.6.4 Using knowledge transfer to support innovation and to create a knowledge region in the South East

The Institute will support regional growth and innovation through a dynamic and vibrant knowledge transfer process. The Institute is recognised by the local and regional development agencies as an integral part of the support framework for new enterprises in the South East and the Institute must continue to play a leading role in the region's strategy to encourage new knowledge-based business start-ups. Furthermore, it must continue to take a leading role in defining innovation policy in the region and developing the regional innovation structure. In conjunction with the development agencies and other regional stakeholders, the Institute will work towards the creation of a region of knowledge in the South East, underpinned by an effective and easily accessed knowledge transfer process.

In terms of entrepreneurship, the Institute plans to develop a national and international reputation for academic excellence in the field of entrepreneurship research, enterprise start-up, business incubation, knowledge transfer and collaborative research. This knowledge and expertise will both inform public policy debate and

feed into the teaching of entrepreneurship and knowledge transfer in our undergraduate and postgraduate programmes. The Institute's ArCLabs Research and Innovation Centre, the Centre for Entrepreneurship and the South East Enterprise Platform Programme (SEEPP) will continue to support the establishment and development of campus spin-out companies and other knowledge based companies in the South East by providing incubation space, mentoring, business development and training.

## 5.7 Research degree strategy

The Institute places the student at the centre of its activities and this is especially important in the case of research students. The research student is often at the heart of the research process, particularly at doctoral level. The Institute, must accordingly, have a quality environment that positions the learner in an effective community of learners and enables them to develop their research to the appropriate standards. The Institute aims to increase the level of postgraduate activity, measured mainly by student numbers, to 10% of the total student body over the next five years. It will continue to enhance the quality of the postgraduate environment and to maintain the highest standards of provision benchmarked to international levels.

Strong growth in demand for postgraduate programmes in the South East can be expected as a result of both

- 1 the national need to increase the output of research graduates;
- 2 demands from the internal and regional learner community to study for research awards at the Institute.

The Institute is committed to attracting highly motivated and academically qualified postgraduate research students in all areas of its research programmes and will achieve this through a number of actions.

- 1 The research-literacy of undergraduates will be enhanced. As part of the credit-based modular system (MAP), all undergraduates will be exposed to at least one module in research-literacy and to a research project. This introduction to research makes undergraduates more open to the research option for postgraduate study.

- 2 The profile of postgraduates will be widened. In the past, the majority of the Institute postgraduates have been recruited from Institute graduates. It is part of the Institute's strategy to increase the percentage of Irish and EU students from other universities, adult and part-time learners and international postgraduates. This will be done by increasing awareness of opportunities more widely. A financial incentive has been introduced to retain talented international students in the Institute.
- 3 As part of its intention to widen access to include new categories of students and new discipline opportunities the Institute will extend the implementation of Accreditation of Prior Experiential Learning (APEL) at postgraduate admissions level. This will make research studies more available to older persons who have extensive work or community experience. The Institute also intends to target new disciplines – for example, the new School of Education will provide opportunities for teachers at second and third levels to gain research degrees in the area of pedagogy and the management of education and the School of Health Science will provide more opportunities for nurses and other healthcare professionals.

The Institute is cognisant of the need to ensure the environment in which postgraduate research can take place meets high quality standards and in this respect the Institute is committed to

- 1 continue to upgrade the physical environment for all postgraduates to include the provision of quality laboratory and computing facilities;
- 2 group learners into clusters of research to ensure that a community of practice exists for each learner;
- 3 provide access to relevant supports such as library and funding;
- 4 provide generic research training to support the discipline specific training;
- 5 enhance the capacity for learners to engage in national and international communities of practice, particularly in terms of the Institute's international network of universities;
- 6 ensure that the highest quality of supervision is available through the training of supervision skills in the academic community;

- 7 enhance the number of staff available to supervise at postgraduate level;
- 8 recognise excellence in research and research supervision through appropriate awards and events.

## 5.8 Quality assurance and improvement

Continuous improvement in research development and innovation occurs in a number of ways. These include increasing the quality of research conducted at the postgraduate level in terms of the student process as well as improving quality of the actual research output of the research groups and centres to which the students belong. In addition, the processes of technology transfer and commercialisation should be viewed as an integral part of the quality performance in the research area.

Key priorities for quality assurance in the research area include

- 1 ongoing review of procedures to ensure consistency with international and national best practice;
- 2 strengthening programmes of training for research methods and research supervision;
- 3 enhancing quality assurance processes which cover other areas of the research cycle such as quality assurance for proposal submission, training and development, postgraduate supervision and technology transfer;
- 4 establishing a panel of external experts (from academia and industry) to review the operation of the quality assurance process and make recommendations to the Institute on how best to improve the system. These recommendations will be used to identify areas for further improvement which in turn will be mapped in to the production of the research operational plan for the following year.

## 5.9 Graduate profile

A central part of the graduate profile that creates a unique graduate of the Institute is the research capability of the graduate. The Institute's research strategy builds the capability of undergraduate and postgraduate students in the following ways:

- 1 building a research component into all undergraduate programmes and encouraging a research and questioning ethos;
- 2 teaching skills associated with scientific reasoning, investigation, validation and communication of results as well as skills in research management, intellectual property management and innovation;
- 3 revising its postgraduate training programme to ensure that graduates have the necessary training and development suitable for a career in industry as well as academia.

## 5.10 Linking research and teaching

The values which underpin teaching and learning in relation to the research activity of the strategic research groups described in this submission, show teaching, learning and research to be complementary and symbiotic activities. This integrative philosophy suggests that in the Institute, researchers are also teachers and with the development of more structured doctoral and postgraduate programmes, this will increasingly be the case. Moreover, the emphasis on an expanded set of key transferable skills in research training, as required by the Salzburg Principles<sup>17</sup> and other key policy documents will accentuate this instructional aspect. Cohort-based and generic postgraduate research training in the Institute supplements more specialised departmental and research-team training. It covers skills in the following areas:

- 1 research skills and techniques
- 2 research environment
- 3 research management
- 4 personal effectiveness

- 5 communication skills
- 6 networking and teamworking skills
- 7 career management skills.

This training will from 2007 be accredited by the Institute in line with the requirement for graduates and postgraduates to demonstrate key transferable skills. It will also be delivered in other Institutes of Technology. The Institute's research training is now in line with best international practice.

Accredited training in Research Supervisory Skills has also been provided in the Institute since 2005 as part of the Masters in Learning and Teaching (MALT) programme for higher education lecturers. Successful completion of this module merits a single subject certificate at postgraduate level 9.

Many of the processes and outcomes of research are increasingly embedded in the undergraduate curriculum. Teachers may show this link through their teaching methodologies and their involvement in research activity. The promotion of active learning in students, with an emphasis on the identification of interesting, cutting edge problems, problem-solving techniques and team-working can act as a preliminary to the research process at postgraduate level by providing interesting topics or an expansion of literature review or methods initially explored at earlier stages. At a time of full employment this active learning may contribute to the development of a research culture, motivating graduating students to continue into research at postgraduate level.

It is also the policy of the Institute that the centres of excellence and research clusters should translate appropriate aspects of their specialisms and research into programmes of study or individual modules both at undergraduate and postgraduate taught levels. The Institute has been highly successful in this respect and has developed a number of unique programmes and modules.

## 5.11 Conclusion

This chapter supports the high level strategic priorities in the following ways.

STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
<b>Building Regional Focus through Internationalisation</b>	Codifying and building on regional competencies and their translation into the international arena.	The number of links created between research centres, clusters and groups with industry, international academia and government agencies through alliance and partnerships to support regional economic development.
<b>Empowering a Distinctive Learner</b>	Creating opportunities for funding; Participating in research activities and a graduate profile that emphasises research.	The creation of a network of partnerships between industry, national and international research centres and the Institute's research community. Student access to resources in external research centres and industry R&D resources.
<b>Organising for Growth</b>	A greater linking of research activities and clustering and webbing of research activities (research link) in each school.	The number of clusters created and the level of transdisciplinary activity in each cluster.
<b>Enhancing Knowledge Generation and Knowledge Transfer</b>	Research strategy Bi-directional regional flows Mode II orientation.	The number of joint research projects with regional industry. Knowledge transfer activity through new course development public lectures and participation of Institute staff in regional boards and working groups.
<b>Maintaining the Cycle of Strategic Improvement</b>	The strengthening of quality measures.	The growth in research funding, publications, intellectual property and patents.

## Chapter 6

### The Transition from Learner to Graduate and Beyond



# The Transition from Learner to Graduate and Beyond

## 6.1 Introduction

A primary role of the Institute is to engage learners in the learning process and to facilitate their development socially, culturally and academically. In this respect the Institute has defined a number of objectives that it will deliver in order to ensure the highest quality graduates. These include

- 1 Creating a distinctive graduate;
- 2 Maintaining the learner at the centre of our activities;
- 3 Creating a focus on lifelong academic and personal development;
- 4 Building a network of partners that support;
- 5 The learner in life transitions.

## 6.2 The graduate profile

Graduates of the Institute should be instantly recognisable for a number of characteristics that distinguish them as coming from a distinctive tradition and philosophical custom. The Institute recognises the need to define the graduate not only in terms of the technical skills that they acquire through education but also in terms of the roles that they should expect to play in their professional and social lives. The graduate profile should be focused on what the graduate can and should be rather than what they can do. In this respect the Institute affirms the following key characteristics of the distinctive WIT graduate:

- 1 Capable in all of the outcomes of the qualification awarded;
- 2 Disposed towards ongoing learning and self-directed in learning;
- 3 Research-literate and research-informed;
- 4 Fluent in interpersonal and communication skills;
- 5 Enabled and further supported in career management and the mapping of career pathways;
- 6 Equipped with other life skills reflective of the development of the whole person and of a culture which will equip students for success after graduation, to include:
  - A capacity for independent critical thought
  - Teamwork
  - Ethical sensitivity
  - Self and community awareness.

This profile will be used as a means to assess all new programmes of study being produced by the Institute and each academic area will be required to report on an annual basis on how their distinctive activities will contribute to the development of these characteristics in their students.

### 6.3 The learner as the centre of our activities

Learning is an active process and the Institute is committed to ensuring that the learner is at the centre of the learning experience. By placing the learner at the centre, the learner is best placed to shape and guide the development of the services and activities that inform and shape their experiences at the Institute. The Institute has established a number of objectives that will ensure that the learning is central to the Institute's actions and these include:

- 1 Ensuring student involvement in all aspects of the quality assurance and improvement processes;
- 2 Improving administrative service provision to students making it easier for learners to engage with the administrative processes and to access relevant and timely information;
- 3 To continually improve the careers guidance services through a focused and planned Careers Office;
- 4 To create a diverse and inclusive body of learners to include diversity of student origin, diversity of levels of study from apprentice to PhD, and diversity of socio-economic groups;
- 5 To work closely with the Student Union to plan future service delivery and to be responsive to the needs of the learner body;
- 6 To provide greater flexibility in choice of modules and specialisms for the learner;
- 7 To extend access to programmes in the Institute to the widest possible community;
- 8 To support the graduate through the Alumni Office and maintain the graduate as a key constituent of the community at the Institute.

*“The student is at the heart of our Institute. Our graduates should be instantly recognisable for a number of characteristics that distinguish them as coming from a distinctive tradition and philosophical custom.”*

## 6.4 Lifelong learning

Provision of lifelong learning opportunities is essential to any region that aspires to develop an effective intellectual capital. Creating lifelong learning is a function of two principal challenges.

Firstly, creating a culture among learners that emphasises continuous professional and personal development is critical. This creates a necessary driver for demand for continuing learning. The Institute addresses this challenge by ensuring that its learner interactions inculcate this cultural norm and further expresses this norm through its definition of the distinctive WIT graduate (see section 6.2). Secondly, the opportunity to continue study is a function of the availability of programmes and the capacity of individuals to access that study in an appropriate manner. In this respect, the Institute is committed to enhancing the availability of programmes at the Institute. It will achieve this in a number of ways:

- 1 Greater use of the modular system to increase flexibility of choice and of delivery;
- 2 Development of additional 'outreach' facilities, particularly in tandem with industrial and regional partners to offer programmes more widely;
- 3 Development of technology to assist learners in more remote locations and to study by distance;
- 4 Creation of 4th level research centres developing unique regional competencies, initially in Wexford and in Kilkenny;
- 5 Development of in-company provision for specific sectors and companies.

## 6.5 Network of partners

As the learner transitions from learner to graduate to lifelong learner their relationship with the Institute and the stakeholders of the Institute will change and develop. In this respect, the Institute recognises the need to work closely with a wide network of stakeholders. As in previous strategic plans, the Institute affirms its commitment to working with its key stakeholders.

- 1 Alumni are key constituents in the development of the Institute and provide a critical interface between the Institute and the external stakeholders. Our alumni can create new learning opportunities, open up channels to explore possible strategic alliances and create new work placement and possible funding opportunities. The Alumni office is committed to maintaining strong linkages and affiliations with our graduates and to provide services to them. The Institute's commitment to engendering in learners a disposition toward lifelong learning also requires the Institute to provide the Alumni with relevant programmes for continued personal and professional growth.
- 2 Through the employers of our graduates, the Institute can maintain the currency of its programmes and portfolio offerings. We must work closely with this group to design and deliver programmes of quality that address skills and qualification needs of the employer. The strategic aim of increasing work based learning opportunities increases the need for strong linkages with employers and their involvement in the activities of the Institute.

- 3 The Institute has recognised the importance of stakeholders who support the Institute in many diverse ways. These 'Friends' assist in supporting the community of the Institute, culturally, emotionally and strategically and they provide a fresh and innovative perspective on the Institute and its activities. Maintaining an open institution helps vibrancy, renewal and self reflection.
- 4 Partnerships, alliances and dialogue with industry, professional bodies and state agencies are essential parts in ensuring technology and knowledge transfers occur in bi-directional flows. The Institute will continue to work closely with these groups to ensure it has an effective network of relationships.
- 5 Parents also play an important role in higher education and are an important source of information and feedback for the Institute. The Institute is accordingly committed to dialogue and involvement of parents and parent groups in the designing of strategy and in assessment of performance.
- 6 The importance of integrating the educational system from primary to fourth level has been identified as an ongoing objective of this strategy planning period. The contribution of CALMAST in providing this linkage over the last planning period has substantially increased the number of children at primary and secondary school who have experienced 'the fun of learning in science and maths.' The Institute will continue to engage primary and secondary schools and children to further enhance the integration of education in the South East.
- 7 Staff and students at the Institute contribute significantly to the local and regional community in terms of sport, music, art and culture. Many staff and students have leadership roles in community and charitable organisations and impact significantly on the wellbeing of society. The Institute will continue to promote the importance of this social value and facilitate the ongoing contribution to social and cultural development of the local community, the region and beyond.

## 6.6 Conclusion

This chapter supports the high level strategic goals in the following ways.

STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
Building Regional Focus through Internationalisation	The Alumni, the 'regional' learner and International students.	Links with Alumni and meeting life long learning needs.
Empowering a Distinctive Learner	Graduate profile; Mix of students (international); Alumni.	Employment rates; Employer led demand.
Organising for Growth	The greater incorporation of the learner/graduate in activities.	Learner involvement in Institute processes.
Enhancing Knowledge Generation and Knowledge Transfer	New learner types particularly in the area of creating a research literate region.	Amount of diversity in learner body.
Maintaining the Cycle of Strategic Improvement	A greater transparency in teaching and learning, assessment and credit accumulation; More flexibility and self-determination.	Learner involvement in quality improvement.

# Chapter 7

## The Learning Environment



# The Learning Environment

## 7.1 Introduction

The centrality of the learner is recognised in the mission of the Institute as the guiding criterion by which the standards of the Institute should be assessed. Effective learning can only take place, however, in an appropriate learning environment. Developing the physical infrastructure is clearly central to creating a learning environment and this challenge is addressed fully in Chapter 9. In addition to the physical infrastructure, the learning environment is strongly influenced by the following factors:

- 1 harnessing the interface between staff, the learner and the Institute;
- 2 strengthening the culture of learning;
- 3 enabling learners through communications and information technology;
- 4 creating opportunities beyond the traditional boundaries of the Institute;
- 5 creating an output based quality system;
- 6 continuing to strengthen support services.

## 7.2 Staff, learners and the Institute

Feedback from our student body consistently recognises the strength of our staff as a key determinant of the quality of the learning environment at the Institute. The Institute takes immense pride in its unique resource, its people, and acknowledges their centrality as the key driver of the learning experience and the key interface between the learner and the Institute. In this regard, the Institute is committed to enhancing the environment where student and staff interaction can occur, in a professional manner, and in support of the learning needs of the student. Creating a strong interface between staff and students facilitates clear, strong and two-way communications. In the period 2007-10, the Institute re-affirms its commitment to

- 1 building processes of open communication between the Institute, staff and learners in a multi-directional manner which allows all groups participate in the development of the Institute. Specific actions include the formalisation of student interactions through course board participation and the roll out of the agreed system for student feedback in line with nationally agreed deadlines;
- 2 enhancing communication through the continual investment in internal communications, continuing the on-going programmes of open meetings with staff and with students and the increasing use of participative strategic planning processes under the auspices of the Office of Strategic Planning.

The interface between staff, learners and the Institute is also mediated by the need to support all learner needs, both academic and non-academic. Throughout the implementation of the 2003-6 plan, the Institute continually strove to improve student facilities. The Institute must continue to build on the gains made. In particular, the Institute has set an objective of improving the support activities that facilitate the learner in completing their programmes successfully and to facilitate each learner to maximise their own potential.

The relationship of the learner to the Institute does not end, however, on graduation and the Institute is committed to capturing the value of a strong alumni. Alumni provide testimony to the quality of the Institute, provide a mechanism for feeding back new ideas and support lifelong learning. Alumni provide the inspiration to new generations of students and set the benchmarks for future generations to expand. The Institute will continue through the Alumni Office to support and encourage the active participation of the Alumni in the Institute.

### 7.2.1 Cultural and artistic interface

The staff of the Institute has always worked beyond the narrower remit of the traditional and statutory basis of the Institute of Technology sector. In particular, their cultural, social and artistic interface with communities shows a commitment in both professional and voluntary capacities. This interface will continue through the Institute's specialisations in Creative and Performing Arts (including healing arts) and support of creative and artistic events throughout the region. The Institute also operates as a cultural and heritage centre, housing, for example, art collections and will continue to develop, support and protect the heritage and cultural environment of the South East.

Ní foláir don Institiúid freastal go speisialta ar ghánna agus riachtanaisí phobal na Gaeltachta siar uainn i Rinn Ó gCuanach. Cheana féin tá úr chúrsa Ard Diploma i Léiriú Teilifíse dá reachtáil idir an Institiúid agus Nemeton Teo.

Tabharfaid an cúrsa seo treoir ar leith agus sinn ag cothú cursaí nua léinn agus taighde eadrainn araon agus fairis sin idir páirtneirí eile gur suim leo an Ghaeilge chomh maith.

Is mian linn manma na Institiúide a chomhlíonach go h-íomlán agus chuige sin leanfar leis an gceangailt atá nascaithe eadrainn go dtí seo.

### 7.3 The culture of learning

The Institute's commitment to creating a learner centred environment requires a set of cultural values that emphasises the importance of effective programme delivery, responsiveness to learner needs and a focus on learner based output measures of quality. In this respect, the Institute has established the following targets for the 2007-10 period:

- 1 Supporting all areas to continually improve quality systems that define and measure key aspects of performance through the application of strategic planning and review principles consistent with national and international practice;
- 2 Recognising the achievements of staff, students and stakeholders that underpin and carry the key cultural values of the Institute. In this respect the Institute is committed to developing its awards for academic excellence for staff in the areas of teaching and learning and in research supervision. The number of scholarships and awards that are presented to learners as a mark of their achievements will also grow over the period to 2010.

### 7.4 Enabling learners through communications and information technology

Advances in technology have impacted substantially on the learner environment. New technologies are now available to facilitate learning in terms of delivery of programmes, access to learning material, research methodologies and assessment. The Institute has established a number of priorities for action to engage the appropriate technologies for the learner environment and these include

- 1 improving and expanding web-based services and in particular further development of the virtual learning environment through upgrading technical capacity and also through expanding the range of ongoing pedagogic and content-creation support available to staff in online teaching and learning;
- 2 implementing wireless network access "hotspots" across all campuses of the Institute;
- 3 continue to monitor trends in technology and adopt appropriate technical solutions to aid the learner.

## Hubs and Gateways<sup>18</sup>



## 7.5 Beyond traditional boundaries

The twin objectives of being regionally focused and the creation and transfer of new knowledge to the benefit of the region requires the Institute to innovatively re-define its traditional boundaries. Central to delivering on both objectives is the capacity of the Institute to be regionally embedded with flows of information, knowledge and ideas between regionally relevant stakeholders. Achieving this requires the Institute to create mechanisms for the external stakeholders to be able to access services, facilities and programmes from all areas within the region and for the Institute to have a presence in regional areas through which centres of excellence can be developed. The Institute will deliver on these challenges in a number of ways.

- 1 Creating technology solutions that allow programme delivery to be location independent. Continued investment in technology, including e-learning methodologies, will also create a learning environment without physical boundaries. It is envisaged that technology will continue to play a key role in creating a flexible learning environment designed to accommodate all learners.
- 2 Providing mechanisms to transfer knowledge to/from the Institute and regional stakeholders.
- 3 Creating an effective mechanism for involving key external stakeholders in the quality improvement and strategic planning process.
- 4 Locating centres of 4th level activity in regional hubs to cluster academic and commercial knowledge streams and build specialised research centres of excellence in line with the Institute research strategy.
- 5 Continuing to implement the Institute's life-long learning strategy to foster access to all levels of education for all cohorts of learners.
- 6 Creating a learning environment that is diverse nationally and internationally.

## 7.6 Output based quality system

International trends in higher education quality management emphasise the need to focus institutional development on a philosophy of quality improvement, while utilising performance indicator metrics in an effective output based system of quality assurance. The learning environment is perhaps one of the most critical influences on the learning experience and on the final standard of the graduate. Guided by the graduate profile, the Institute will continue to monitor, assess and develop the quality measure that judge the effectiveness of the learning environment. Specific targets in this respect will involve:

- 1 the design and monitoring of on-going staff training and development activities to include issues of pedagogy and professional practice both for academic staff and all support functions;
- 2 the strengthening of systems of student and stakeholder feedback and their involvement in the quality improvement, monitoring and planning processes;
- 3 the ongoing development of self-assessment review systems, involving all appropriate internal and external stakeholders, to evaluate the relevance of programmes offered to learners and the delivery systems by which they are offered, and to then publish and implement the resultant quality improvement measures identified.

## 7.7 Supporting learning

The Institute will support learning by providing an effective support structure to facilitate the learner in accessing relevant materials and in developing and building career objectives.

### 7.7.1 Library

The library service has a central role in the educational experience of the Institute, underpinning the Institute's role in the intellectual formation of students. The library houses a collection of 175,000 items comprising print and multi-media material. Access to over 100,000 journal titles is also facilitated via online databases.

The mission of the library service is to maintain and develop collections and services in support of the present and future teaching, learning and research needs of the Institute and the wider South East region. Key strategic issues for the library include the following:

- 1 The library's learning support team will continue to work in consultation with academic departments to enhance information skills training and will deliver targeted programmes to give learners the skills they need to utilise the library's range of resources, particularly electronic databases.
- 2 The library is committed to developing services that support diverse learner types, non-traditional teaching methods and to facilitate blended learning, such as distance or part-time learning.
- 3 The Luke Wadding library building includes an assistive technology room, which allows users with physical and sensory disabilities to access specially designed hardware and software. The library will continue to exploit the most up-to-date techniques and technologies in this area in order to ensure that users with disabilities will gain the maximum possible benefit from the service.
- 4 Library staff will continue to pursue further education and professional development so that they are well informed about advancements in the profession and are equipped to meet the changing information needs of the learners.
- 5 The library service has been gifted with several prestigious special collections in recent years. Special collections will be appropriately maintained and displayed and made available for consultation by scholars and researchers.
- 6 Library staff will continue to be involved in the institutional repository, which is a formal way of capturing the intellectual research output of the institute and exposing it to a wider audience on the web.

As academic libraries evolve from repositories of collections to participants in the entire education process, the library staff acknowledges the need for continuous evaluation, review and change, so that it will continue to play a central role in the learning experience of the Institute and the wider community.

## 7.7.2 Centre for Helping Access, Retention and Training (CHART)

The Centre for Helping Access, Retention and Training is primarily concerned with improving retention of students within the Institute by helping them in a range of ways to complete their course and making the Institute more accessible for those who traditionally may not have considered third level education as an option. The main functions of CHART are:

- 1 to consolidate and expand a diverse range of student support services which aim to optimise the academic, social and cultural experience of students in the Institute;
- 2 to continue to make the Institute more accessible for those who traditionally may not have considered third level education as an option (socio-economic disadvantaged students, early school leavers, ethnic minorities, student with a disability);
- 3 to promote student engagement by providing personal and professional development opportunities for students;
- 4 to continue and support the ongoing personal and professional development of all staff in CHART;
- 5 to consolidate and develop strong links with relevant internal stakeholders and external agencies;
- 6 to develop and implement a programme for scholarship and research.

## 7.7.3 Careers Office

The Careers Office is committed to supporting students and recent graduates in developing and implementing successful career plans, and facilitating the recruitment process for students and employers. The Careers Office also supports the Institute in providing opportunities for students and graduates to develop the skills and attributes required to manage their careers throughout their working lives. The mission statement of the Careers Office is 'To enable students to proactively manage their own careers (set realistic career goals, make informed career decisions and develop the skills necessary to accomplish their goals) by offering a range of resources and services including information, advice and guidance and placing particular emphasis on web-mediated technology, careers website and WebCT'.

## 7.8 Conclusion

This chapter supports the high level strategic goals in the following ways.

STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
Building Regional Focus through Internationalisation	Extending the boundaries of the Institute and developing quality systems that are regionally inclusive.	Number of programmes that can be taken in the workplace or regionally.
Empowering a Distinctive Learner	Placing the learner at the centre of activities; Providing support facilities; Engagement with Alumni & Scholarships; Supporting learning through the Library, CHART & the Careers Office.	Increases in lifelong learning programmes and in learner demand.
Organising for Growth	Technology investment in delivery and new quality systems; Implementation of Wireless Technology.	Increases in investments in learning support.
Enhancing Knowledge Generation and Knowledge Transfer	Strengthening offices responsible for knowledge transfer; Investing in library and library access.	Investment in library.
Maintaining the Cycle of Strategic Improvement	A move to measurable outcome based systems of quality management for all learners and ongoing improvements to the delivery and assessment of programmes.	Conduct of quality audits in services areas.

## Chapter 8

# Re-alignment of Organisation Structures & Processes



# Re-alignment of Organisation Structures & Processes

## 8.1 Introduction

The Institute's organisation structure must be appropriate to deliver on its key priorities. Substantial challenges arise from the growth that has been achieved in the Institute and in particular as the Institute engages both a broader and deeper range of activities in research and in regional development. This will create pressures for the Institute in a number of areas. These include the need

- 1 for new organisational structures to meet the changing demands of our activities and our stakeholders;
- 2 to include new mechanisms to coordinate the increasing diversity of the Institute;
- 3 to enhance and develop governance and management structures to respond to legislative changes and to pressures of growth;
- 4 to ensure the appropriate Human Resource environment to deliver on the strategic aims.
- 5 to support structural and organisational changes through appropriate training and development programmes;
- 6 to ensure adequate financial and resource allocation systems that enable priorities to be achieved in the most efficient and effective manner.

## 8.2 Structural changes

During 2003-6, new management and academic structures were created (as outlined in Chapter 2) and a key developmental objective for 2007-10 is to facilitate those structures to deliver added value to the Institute. The new management posts were designed to enhance the professional approach to functional areas and improve the planning and delivery of services intra-organisationally and to existing and potential students.

Creating specialist structures also increases the complexity of the Institute and accordingly the need to create greater coordination between units. Specifically in this regard the linkage between academic processes and central management functions is a critical aspect of quality service delivery. A number of priority areas have been identified as potentially benefiting from greater coordination and these include the strategic planning process, the research support functions and the academic management functions. To achieve these aims, the Institute intends to create support roles in academic schools (equivalent to course leaders) to champion communication and feedback between areas.

The effective linking of the Institute's Governing Body, Executive Board, Academic Council and other committees with the establishment of clear chains of responsibilities and authority is a key priority. Substantial work, from internal reviews and assessment, has been done on evaluating the current structures and proposals on extending these reviews to an Institute-wide dialogue and assessment based on International best practice have been presented. The Institute will accordingly in the early part of 2007 establish this review with the objective of implementing proposed changes before the end of 2010.

The Institute will also address the coordination needs of the research centres. The growth in the number of research centres has created a need to formalise the relationship between the research groups and the academic units to which the individuals in the groups report. This is particularly relevant in interdisciplinary research groups.

Linked to the growth in research groups is the need to create more formal mechanisms to foster interdisciplinary and cross disciplinary teaching and research. This is particularly important in facilitating the modular system to deliver maximum flexibility. In order to address this issue the Institute will

- 1 build subject group structures across the Institute to facilitate specialism at the subject level;
- 2 create interlocking structures that foster dialogue and cooperation between subject groups;
- 3 create a framework for interdisciplinary and cross disciplinary structures to be funded and managed;
- 4 create committee structures to ensure that all programmes are compliant with the requirements of the modular design and to ensure that any new programme developed meets financial and strategic objectives.

### 8.2.1 Regional structure

In its submission to government seeking designation as the University of the South East, the Institute laid out its plans for the creation of regional hubs, in Kilkenny and Wexford, aimed at developing 4th level specialisms in regional centres. The delivery of these hubs will require structural and organisational changes to support their establishment and development. Principally, these include

- 1 formalising networks and partnerships of key stakeholders;
- 2 building mechanisms for knowledge transfer between the Institute and the regional hubs in a bi-directional manner;
- 3 locating research activities in the regional centres;
- 4 providing programme and module development to support specialisms in each regional area.

To deliver on these aims the Institute will appoint a programme coordinator in the first half of 2007, who will have responsibility for the initial development of the regional model. In the medium term of the plan the ongoing research capacity development and the knowledge transfer will become the responsibility of the Office for Research.

### 8.2.2 Partnership with other HE providers

The Institute also recognises the national strategy of building strong HE partnerships in order to exploit more wholly the unique competencies that exist in each individual institution. In this respect, the Institute is committed to building relationships across the full spectrum of education provision integrating vertically from primary to fourth level and horizontally with other providers of third and fourth level nationally. Furthermore, the Institute recognises that it must lead on a number of issues and that by combining with others, internationally, nationally and regionally, from both academic and stakeholder organisations greater impact can be achieved. These areas identified for leadership will include

- 1 regional development and knowledge transfer;
- 2 reform of curriculum and learning processes to build a unique and distinctive graduate profile;
- 3 building strong research competencies across the region by creating pillars of research excellence in defined discipline areas;
- 4 partnering with National agencies or organisations for the delivery of nationally based programmes.

In addition to leading on these areas, the Institute is committed to build relationships that enhance its expertise through the specialism of other institutions and in this respect is committed to building strategic partnerships with other Universities and Institutes.

The Institute also recognises the importance of international alliances and will throughout the 2007-10 period continue to build on existing and foster new relationships. Of particular relevance in this planning period will be the need to build relationships in the US, the Middle East and in Asia. These relationships will include the

- 1 transfer of staff and students both into and out of the Institute for periods of study;
- 2 accreditation or joint delivery of programmes of study;

- 3 recruitment of students;
- 4 bilateral agreements on the recognition of awards;
- 5 cooperation in research, development and innovation.

### 8.3 Changes in governance structures

The governance structures in higher education are changing with the introduction of new legislation (the Institute of Technology Act) and the transfer of the reporting responsibility of the Institutes to the HEA. The impact of these changes is to increase the reporting responsibilities (particularly in the context of strategic planning) and the need for planning systems to more explicitly meet the objectives of national policy and the needs of the region. The investment in strategic planning functions over the period 2003-6 has placed the Institute in a strong position to meet the strategic demands. In addition, the Governing Body has extensively reviewed its operations in line with best international practice and has established a strong governance framework. The submission seeking university designation further explicates governance issues and the Institute recognises that on designation the Institute's governance function will assume greater responsibility and accountability. In this respect, the governing body is confident of its capacity to meet the changing needs arising from new legislation or from the designation of the Institute as the University of the South East.

The Institute is further aware of the need to constantly review and update its governance structures particularly in the light of maintaining effective reporting and control mechanisms. It will achieve this by

- 1 the training and development of governing body members in line with best international practice;
- 2 review of the committee structure of governing body to ensure strategic aims are achieved;
- 3 formalisation of reporting structures in line with agreed templates for all units within the Institute;
- 4 ongoing attention to changes in best international practice and changes in the regulatory environment.

### 8.4 Human resource strategy

The Institute now employs over 1,000 staff directly. The companies who provide the range of non-academic student support services such as accommodation, catering and secretarial services employ an additional 300 staff. The Institute is the third largest employer in Waterford.

It is critical that the Institute continues to develop its HR strategy so that it attracts the best possible staff in all disciplines, maintains those staff through innovative training and development programmes and supports and retains them through excellent reward, recognition and employee well-being initiatives. The Institute will continue throughout the period 2007-10 to work in partnership with all its unions and staff representatives to ensure that there is best practice in employee and industrial relations.

The Institute recognises the importance of qualifications among academic staff as an important driver of future growth and of meeting future programme needs. In this respect, the HR policy will be proactive in supporting academic staff in completing advanced research based programmes and in achieving the target of 50% of the academic staff qualified to doctoral level by 2010. In addition, the Institute recognises the key contribution of administrative and support staff and the range of qualifications and expertise that they bring to key process and activities within the Institute. Maintaining and enhancing a professional administrative and support structure and facilitating the ongoing professional development of these groups is also a critical success condition for the future. To support these objectives, the Institute is committed to allocating 3% of its total annual pay budget to training and development investment for each year of the plan.

The Human Resource office will also assist the Institute to review and change its structures and working terms and conditions, as required and by agreement with the staff and their representatives, to reflect the changes required on any change of designation of the Institute.

The Institute will also recognise and acknowledge the service of retired staff. It will foster and grow the Retired Staff Association and provide on-going links, events and services to those staff in recognition of their contribution.

## 8.5 Training and development

To deliver value from the structural changes that have occurred and that will be designed during the 2007-10 period, the Institute must ensure adequate training and development processes are in place to consolidate the new structures. In this respect, the Institute will deliver a package of management training that will permeate throughout the organisation. The Institute is committed to commencing this initiative in 2007 and to continue throughout the life of this plan. Specific areas for consideration include

- 1 Executive management training programme;
- 2 Head of Department and Central Services Manager training programme;
- 3 Teaching and learning training programme;
- 4 Enhancements to research training programme;
- 5 Quality management training programme;
- 6 Programmes to enhance technical and personal development competencies arising from the PMDS system;
- 7 Developing new competencies from needs identified in the implementation process.

## 8.6 Financial systems

The statutory obligations to follow good practice in financial management of public sector organisations inform all of the financial decisions within the Institute. The Institute further recognises that the financial and resource allocation systems are substantial levers of change and that they need to align closely with the strategic priorities. In this respect, the 2003-6 period devolved significant budget responsibility to individual managers to manage resources with a strategic context. The Institute will continue to build on this model in 2007-10 with the emphasis on

- 1 embedding responsibility for effective fiscal prudence and accountability in all organisational units, both academic and service, within the Institute to ensure value for money and effective financial decision making;

- 2 link the budget allocation processes to strategic plans ensuring that financial resources are utilised in line with established priorities;
- 3 establish systems of incentivisation for alternative income streams and increase the percentage of external funding flowing into the institution;
- 4 create a composite strategic planning – budgeting cycle that will include target setting and review with each institutional unit;
- 5 continue to improve the budgetary responsibility system by creating and reviewing financial performance on a full budget centre basis;
- 6 create an internal Strategic Innovation Fund to support the development of new strategic initiatives;
- 7 continue to develop the management accounting systems to enhance information for decision making;
- 8 agree and implement a programme for ensuring cost effectiveness in pay and non-pay expenditure with the target of reducing costs across all units in the Institute.

In 2007 the Institute of Technology sector will come under the funding and management control of the Higher Education Authority. The Institute welcomes this initiative and the positive effects that it will have on the sector as a whole. One outcome of this designation will be the greater flexibility enjoyed by Institutes to develop and retain income streams in addition to central government allocations. This provides incentives for new funding models to be developed. The Institute will in this respect target a number of potential income generating activities, including

- 1 commercialisation of research and the creation of new campus companies;
- 2 engagement in Institute sponsored consultancy activities;
- 3 greater exploitation of the campus facilities and the greater use of the current campus services structures to commercialise more widely the competencies of the campus services unit;
- 4 exploiting the WITcard technology in national and international markets.

“ The Institute is committed to allocating 3% of its total annual pay budget to training and development. ”

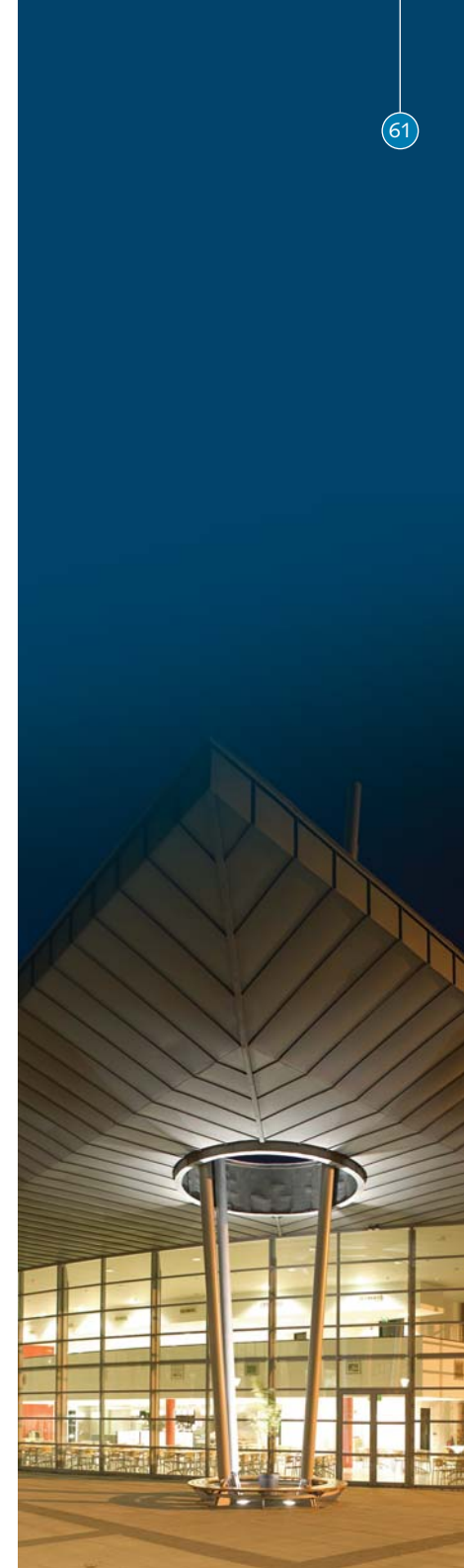
## 8.7 Conclusion

This chapter supports the high level strategic goals in the following ways.

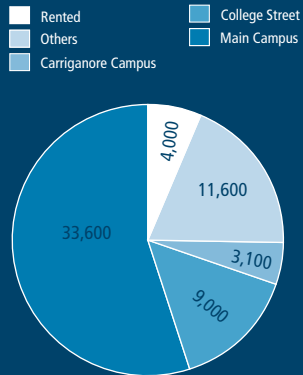
STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
Building Regional Focus through Internationalisation	Building regional partnerships and creating regional hubs.	GVA/income contribution to region. Creation of regional hubs.
Empowering a Distinctive Learner	The proximity of students to teaching and learning activities; The representation of students on Course Boards.	Number of interdisciplinary programmes developed.
Organising for Growth	The introduction of the Strategic initiative fund and the addition of new offices such as Quality etc.; Renewal of structure and operating systems.	Appointment of coordinators; Structural and organisational changes.
Enhancing Knowledge Generation and Knowledge Transfer	New HR structures; Regional transfer points; Resourcing research activities; Base line funding.	Creation of regional hubs.
Maintaining the Cycle of Strategic Improvement	New structures to support the Institute; New structures for programme development and fiscal control.	Training and Development spend at 3% of pay budget. New allocation model created to allocate funding on strategic basis.

# Chapter 9

## Physical Development



**Figure 4**  
Schedule of Accommodation  
Building area in square metres  
– Totals 61,360



# Physical Development

## 9.1 Introduction

The Institute has a multi-campus structure with four sites clustered within a three mile radius of the main campus. The Institute has over 61,000 square metres of accommodation divided among its current campuses and has the potential to double that space with planned developments at the West Campus in Carriganore. The current space allocation is provided in Figure 4. Physical development is designed to support learning, teaching and research across all campuses in an integrated manner and also to facilitate the human needs of living, resting, playing and eating. The importance of the built environment as an icon of heritage and the carrier of societal and cultural norms informs decisions and priorities in design and planning of all campuses. As, however, the student and staff body grows in absolute numbers, in diversity, and across multi-campus, physical development must address a number of challenges in:

- 1 Planning and implementing an ongoing programme of major capital investment;
- 2 Providing physical resources for planned growth in learner numbers and rebalancing the allocation of resources to match the changing profile of learners;
- 3 Providing access for the communities of the South East to ensure that knowledge, technology and cultural transfers can occur;
- 4 Ensuring that adequate funding structures exist which can sustain the capital development plans of the Institute;
- 5 Ensuring that the Institute's built estate enhances its primary processes, and that the Institute has the optimum amount of property necessary to support its strategic goals within the context of changing requirements.

## 9.2 Existing Estate

A well-managed and well-presented campus plays a key role in attracting and retaining staff and students. A campus should encourage staff and students to derive the maximum benefit from the estate as a resource.

Responsibility for property management and maintenance rests with the Estates Department. Key strategic goals for the 2007-10 period include:

- 1 provision of suitable accommodation, which is fit for purpose and which provides an environment suitable for the Institute to carry out its activities;
- 2 provision of property management services to the Institute buildings, staff and students;
- 3 efficient use of space throughout the Institute whether dedicated departmental use or general use;
- 4 ensuring value for money in terms of budgeting, specification, tendering and supervision of the estate including maintenance, operational costs and building/refurbishment works;
- 5 provision of a healthy and safe working environment;
- 6 developing and maintaining an attractive estate of appropriate quality that will enhance the image and activities of the Institute.

## 9.3 Capital programme

The purpose of the capital programme is to ensure that an adequate stock of buildings and amenities is available to the Institute and its community in each of its campus locations. The capital programme has two main focuses, bringing existing projects to completion and the planning and execution of new projects.

### 9.3.1 Existing developments

The 2003-6 period was characterised by major capital development, particularly on the main campus with several new buildings completed. The completion of the Tourism and Leisure Building mid 2007, will provide a further 8000m<sup>2</sup> in the continued development of the Cork Road campus. Further investment in campus infrastructure is planned for the period 2007-10 which will substantially complete the implementation of the main campus masterplan.

The need to continually update and modernise the building stock is also a key objective of the capital development programme and substantial investment in all of our campuses was made in 2003-6. The Institute is committed to ongoing maintenance and enhancement of the buildings and amenities.

The increasing importance of technology and research in work processes has significantly impacted on the resources required for lecturing staff. With this in mind, the need to significantly improve the office environment for all lecturing staff is a priority.

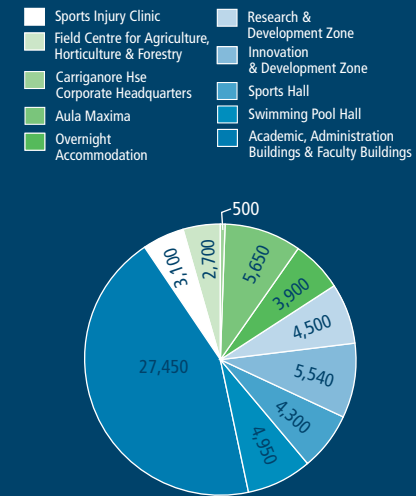
### 9.3.2 Development of West Campus

The West Campus is a riverside land bank of approximately 60 hectares currently housing the ArcLabs Research Building, the National Biodiversity Centre, and Carriganore House (corporate headquarters of the Institute). The campus will fulfil various functions supporting and enhancing the existing campuses. This will include the provision of:

- 1 sporting facilities (four playing pitches);
- 2 social infrastructure;
- 3 additional student services and residential units;
- 4 space for expansion of academic, administration, research and development; utility and complementary commercial facilities;
- 5 park and ride facilities.

The site will be developed on a phased basis over the next fifteen years, initially providing academic buildings and infrastructure essential to future development while also supporting the Institute's wider need to provide student services, residential and essential sports facilities.

**Figure 5**  
Schedule of Accommodation  
Planned for the West Campus  
Building area in square metres  
– Totals 62,590



Long term targets for the site are

- 1 the development of sports facilities in line with expectations of a sports focused higher educational institution;
- 2 the development of a postgraduate campus;
- 3 the development of research and development, and innovation and enterprise facilities to allow the development of new industries and technologies;
- 4 the development of an academic and administration building to complement the existing campus structures;
- 5 the development of a residential zone to provide greater student and visitor accommodation;
- 6 the development of student services to facilitate the student population.

## 9.4 Student growth and diversity

Planned growth in student numbers over the period to 2010 indicates that the learner population will grow by approximately 2,000 students (1,300 full-time and 700 part-time) to reach a full and part-time cohort of approximately 13,000. This growth, however, is predicted to occur from a number of diverse areas such as postgraduate and international students which in turn will have a significant impact on the type and quality of the resources required. This growth and increasing diversity of learner types will create a number of demands on the physical infrastructure including the need to:

- 1 provide additional space appropriate to the user needs;
- 2 have adequate accommodation facilities available;
- 3 create appropriate recreation and leisure space within buildings and on the campuses;
- 4 have an adequate sports infrastructure.

## 9.5 Engaging the community

The physical infrastructure is part of the interface between the Institute and its communities. In this respect, the development of campus and outreach facilities must set the following as key targets.

- 1 Facilitating and fostering industry and commerce to partner with the Institute through sharing resources and accordingly enhance the economic output of the region. A specific zone has been established in the West Campus development plan to deliver on this objective.
- 2 Open the cultural and historical heritage accumulated by the Institute to the community at large. The Institute has significant collections of cultural value, such as the Bewick Collection and the Church of Ireland Cathedral archive. The Institute hosts significant cultural events in music and arts, including the prestigious Waterford New Music Week. The capital development programme acknowledges the importance of providing access to these collections and activities through public displays and through creating physical spaces appropriate to these activities.
- 3 Traditionally, outreach facilities have been the mechanism by which the community at large is engaged and the Institute has been successful in facilitating outreach provision in Kilkenny, New Ross, Clonmel, Dungarvan and Wexford. The changing nature of the learner, however, demands that a more sophisticated approach to engaging the community be employed. In this respect, the provision of more flexible programmes, greater use of technology, distance-based methodologies and specific company-based delivery are cornerstones of the strategic planning within the Institute.
- 4 The Institute has also defined its research strategy in terms of the need to build regional centres of research in Kilkenny and in Wexford that build on unique competencies and potential clusters in those areas. The Institute is accordingly committed to ensuring that adequate facilities are available for these initiatives and will work with the regional stakeholders to deliver jointly on this objective.

## 9.6 Funding

Traditionally, exchequer funding has been the mechanism through which capital development has occurred and the Institute has obtained significant investment through this channel (circa €50m for project work in 2007-10). In recent years, however, the Institute has also recognised the need to extend the range of financing options available and has worked in commercial and public private partnerships to enhance the opportunities for physical development. For the 2007-10 period, the Institute will actively seek new financing structures that reduce the dependency on state support and these will include:

- 1 the use of public private partnerships;
- 2 utilising the foundation and their specialism in raising equity;
- 3 building commercial operations (including the commercialisation of research) that facilitate economic and commercial building;
- 4 use of international and national research funding to create research specific building.

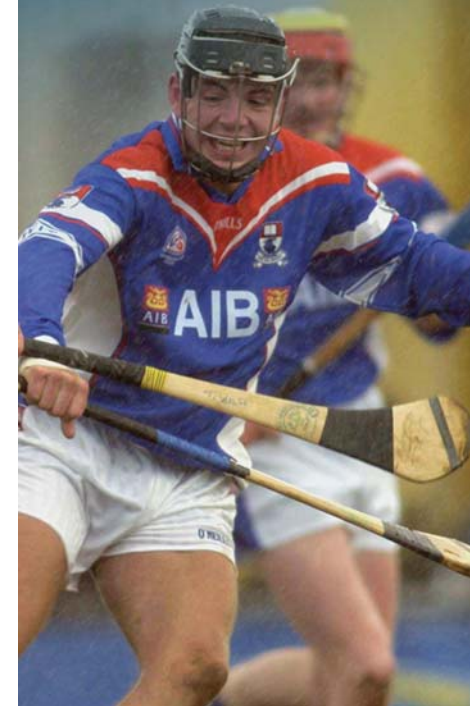
## 9.7 Conclusion

This chapter supports the high level strategic goals in the following ways.

STRATEGIC THEME	CHAPTER RELEVANCE	EXAMPLES OF PERFORMANCE MEASUREMENT
Building Regional Focus through Internationalisation	Campus developments in regional areas.	Physical regional presence.
Empowering a Distinctive Learner	Areas for improvement e.g. planned sports facilities at Carriganore Campus.	Quality of campuses.
Organising for Growth	New funding mechanisms (e.g. private, sponsorship etc) for capital development; Foundation office; Public Private Partnerships.	Defined building programme; Increase in percentage of self-funded activity.
Enhancing Knowledge Generation and Knowledge Transfer	The Research and Innovation building at West Campus; Upgrading the existing facilities in phased and planned manner.	Increase in research space and facilities.
Maintaining the Cycle of Strategic Improvement	Defined planning and monitoring systems.	Capital Development Plan.

## Chapter 10

### Implementing the Plan



# Implementing the Plan

## 10.1 Introduction

Implementation is the link between strategic planning and strategic achievement and designing an effective process is accordingly a crucial part of successful strategic management. For objectives to be meaningful they must be accepted by the community that is charged with their achievement and they must be adopted by the units and individuals that deliver and engage the activities of the Institute. The implementation plans developed, therefore, must:

- 1 recognise that strategic achievement is delivered through the communities of the Institute, its staff, stakeholders and students;
- 2 be developed and supported by those communities;
- 3 be achieved in partnership;
- 4 be open to democratic participation, review and adjustment.

To achieve these implementation objectives, the Institute will

- 1 establish an appropriate implementation structure;
- 2 create open forums for strategic dialogue to occur.

## 10.2 Implementation structure

The Governing body of the Institute, through the Director, is ultimately responsible for strategic direction and strategic achievement within the Institute. Consistent with the implementation objectives, identified above, the Governing Body recognises the need for an inclusive but accountable structure for strategic delivery to occur. To achieve this the Institute will:

- 1 assign objectives to executive level managers for sponsorship, reporting and resource allocation responsibilities;
- 2 work in partnership with key internal and external stakeholders in delivering objectives through appropriate team, committee or specially developed structures;
- 3 develop a detailed implementation plan to cover all areas of the plan with periodic reports on progress;
- 4 assign the responsibility for coordinating strategic achievement and the reporting of progress on the strategic plan to the Office of Strategic Planning;
- 5 support the strategic plan through the strengthening of the annual strategic planning cycle and the resources allocation model and the translation of the strategic objectives into annual operating plans;
- 6 link strategic planning objectives to the quality improvement cycle for all areas.

### 10.3 Strategic dialogue

The Institute will create and encourage strategic dialogue both within the Institute and among external stakeholders and open dialogue to the widest possible extent. While the structure of the Governing Body is externally and internally representative, the Institute will benefit from increased participation of all stakeholders. Increased participation can be achieved through the following mechanisms:

- 1 The creation of a Strategic Advisory Forum to include both internal and external representation;
- 2 The formalisation of an internal communication forum organised by the Office of Strategic Planning, that is open to all members of the community and in which the strategic issues can be discussed and reviewed;
- 3 The application of annual strategic reviews at school, department and unit level;
- 4 Ensuring achieving strategic dialogue is a key criteria for ongoing quality improvement.

### 10.4 Conclusion

This chapter supports the spirit of the high level goals by adopting a partnership approach to implementation that recognises the contribution of all members of the Institute's communities. It further supports the ethos of quality by embedding continuous review and monitoring as a critical component of the implementation process.

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