



North West Gateway Strategic Alliance (NWGSA) Scoping Study

Final Report – Overview

Prepared for

**Letterkenny Institute of Technology and the
University of Ulster**

by

**Indecon International Economic Consultants in
association with London Economics**

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Overview

1. Introduction

This independent **Scoping Study** has been prepared by Indecon International Economic Consultants, in association with London Economics, for the University of Ulster (**Ulster**) and Letterkenny Institute of Technology (**LYIT**). The purpose is to examine whether scope exists for the delivery of additional higher education (HE) in the North West Gateway Strategic Alliance Region (**NWGSA Region**), which has been defined to comprise County Donegal in the Republic of Ireland (RoI) and the six Northern Ireland (NI) local authority areas corresponding to Coleraine Borough Council, Limavady Borough Council, Derry City Council, Strabane District Council, Omagh District Council and Fermanagh District Council.

2. Overview, Vision and the Role of Higher Education

While the NWGSA Region has traditionally suffered from geographic and economic isolation in relation to the rest of the island of Ireland, some encouraging socio-economic developments have been occurring over recent years to which Ulster and LYIT have contributed significantly. These include population growth and the presence of innovative firms.

Other positive socio-economic characteristics include a large level of population – with 500,000 residents the NWGSA Region is one of the most populous regions in the island of Ireland. It includes the linked ‘Letterkenny-Derry’ Gateway under the Irish National Spatial Strategy (NSS) (2002-2020) and Derry has been identified as a major regional city for the North West (including Donegal) in *Shaping Our Future*, the Regional Development Strategy for NI (which runs to 2025). The Letterkenny-Derry Gateway is the largest linked gateway, and the only cross-border gateway, in the NSS.

With a combined population of over 125,000 persons in 2006, the Letterkenny-Derry Gateway is the fourth largest urban centre in the island of Ireland (after Dublin, Belfast and Cork) and it grew strongly by 3.3% between 2002 and 2006 (in contrast, the population of Greater Belfast contracted during this period). Further, Letterkenny has been the fastest growing urban centre in RoI with a higher education institution (HEI) (2002-2006).

Telecommunications infrastructure in the Letterkenny-Derry Gateway (including high-speed broadband) is being enhanced and transport infrastructure across (and within) the NWGSA Region has witnessed significant improvements in recent years, facilitating improved access between the region and other parts of the island of Ireland (as well as within the region). The region also benefits from two airports, one in the west (at Carrickfinn in the Donegal Gaeltacht) and one in the east (at Eglinton, County Londonderry) and both facilitate international as well as national access to the region.

In our 'vision' for the NWGSA Region, we anticipate higher levels of educational attainment among residents and a greater emphasis on knowledge-based activities, including higher-order functions such as business development and innovation. We also envisage the region will become more attractive for high value added activities such as internationally-traded services (including software development and business services) by virtue of continuing to be a cost competitive location.

The NWGSA Region will also continue to benefit from a high quality of life and, together with its other comparative economic strengths, could become an even more attractive location for people to live, work and study, including those born in the region but who have spent their working lives to date elsewhere (for example because they undertook their third-level studies outside the region and/or emigrated from the region to find employment).

A key requirement in helping to realise this ambitious vision for the NWGSA Region over the next decade (notwithstanding the currently very challenging economic climate) is the need to boost the provision of HE in both parts of the region. The analysis presented in the Scoping Study reveals that LYIT and Ulster have played a significant role in the positive developments underway in the NWGSA Region and these include growth in course development (despite a more challenging market environment in the form of an absence of growth in the number of residents aged 15-24 years in the NWGSA Region during 1996-2006) and support to local business and industry in the form of mentoring and collaborative R&D.

However, our analysis also indicates that there is need to further augment HE provision in the NWGSA Region. This finding comes across very clearly in both our quantitative analysis of existing data and in the new primary research evidence gained from our internal and external stakeholder consultations in the NWGSA Region.

In particular, despite the gains of recent years, educational attainment in the region remains low in comparison with elsewhere in the island of Ireland and the level of HE course provision (on a per capita basis) is also relatively low. For example, while the population of the NWGSA Region has grown more rapidly than that of Greater Belfast during 2002-2006, the degree of HE course provision (per head of population) is much higher in Greater Belfast. In fact, among all the comparator regions considered in the Scoping Study, including the Greater Dublin Area (GDA), RoI and NI as well as Greater Belfast, the NWGSA Region is found to have the lowest estimated density of HE provision (as well as having the lowest level of higher educational attainment).

Central to achieving the vision outlined above is the need to build on the gains made by LYIT and Ulster in recent years (which have helped to underpin the socio-economic development of the NWGSA Region) and to further augment both the level and quality of HE provision in the region so that it is at least on a par with elsewhere in the island of Ireland. The importance of the need to boost HE in the region reflects the increasing weight placed on encouraging the development of knowledge-based activities in the policy/strategy arena and we believe this is especially pertinent in the case of the NWGSA Region.

A central conclusion of this Scoping Study is that the most effective means of further boosting HE provision in the NWGSA Region is through strategic collaboration between Ulster and LYIT (the two leading third-level education providers in the region) aimed at enhancing the degree of collaboration in three categories – course development, research and technology exchange with local business and industry.

The new internal and external stakeholder consultation evidence presented in the Scoping Study reveals a very significant level of support (in each part of the NWGSA Region as well as within each institution) for enhanced strategic collaboration between Ulster and LYIT aimed at boosting the quantity and quality of HE provision in the region.

The very positive and consistent stakeholder views regarding enhanced collaboration between Ulster and LYIT are with respect to the following aspects of HE provision:

- Full-time undergraduate courses;
- Full-time postgraduate programmes;
- Part-time undergraduate and postgraduate study - lifelong learning;
- Recognition of prior learning/accreditation of prior (experiential) learning (RPL/AP(E)L) as a means of ensuring lifelong learning;
- Collaboration with local business and industry regarding R&D/innovation and the attainment of other higher-order functions (e.g. business development);
- Specialist incubation support for new business starts in high-tech sectors with significant growth and employment potential.

We identify in the Scoping Study areas within each of the above where we believe enhanced collaboration between Ulster and LYIT may be feasible. Such enhanced collaboration is aligned with each institution's strategic plan and is consistent with their respective commitments to the NWGSA Region. It also reflects our consultations with stakeholders in the region as well as the existing strengths of Ulster and LYIT in the NWGSA Region.

The benefits from enhanced collaboration for both institutions and the NWGSA Region overall should not be underestimated. Leveraging the skills and expertise of both institutions and catering for a larger demographic area will facilitate greater impact and utilisation of talent over a wider geographic area. Combined with the other cross-border initiatives currently underway in the region, which are considered in the Scoping Study, local business and industry will become more aware of other existing businesses *via* networking, technology events/seminars and signposting activities (facilitated by Ulster and LYIT).

3. Methodological Approach and Stakeholder Consultations

Our methodological approach has involved quantitative and qualitative analyses of various data and information compiled by the Indecon/LE Consultancy Team (including analysis pertaining to current and future demographic trends in the NWGSA Region and other regions, including NI and RoI).

In addition to our analyses of various existing data sources, our methodological approach also includes the results of external and internal stakeholder consultations carried out during the course of the Scoping Study.

The *external stakeholders* with whom we consulted included, in each part of the NWGSA Region, the inward investment agencies, enterprises boards, tourism agencies, chambers of commerce and local authorities.

We also consulted with senior representatives of the Higher Education Authority (HEA) in Dublin and the Department for Employment and Learning (DEL) in Belfast.

Our external stakeholder consultations also included two new surveys in each part of the NWGSA Region, namely the Indecon/LE Survey of Businesses and Employers in Donegal and the Indecon/LE Survey of Businesses and Employers in the NI part of the NWGSA Region. We had originally targeted approximately 100 responses for each of these surveys but the outcome in each case exceeded initial expectations – we received 151 responses from businesses and employers in Donegal and 144 responses from business and employers in the NI part of the NWGSA Region, bringing the total number of survey responses received from businesses and employers across the NWGSA Region to 295.

The fourth component of our external consultation programme involved two further surveys in each part of the NWGSA Region, namely the Indecon/LE Survey of Post-Primary Schools in Donegal and the Indecon/LE Survey of Post-Primary Schools in the NI part of the NWGSA Region (including sixth-form colleges). It was originally agreed that we would consult with a sample of 2/3 post-primary schools/sixth form colleges in each part of the NWGSA Region. However, in order to gain as full a picture as possible from this aspect of the external consultation programme, we decided to significantly broaden it out and we wrote to post-primary schools and sixth-form colleges across the NWGSA Region. As a result, we received 26 completed survey questionnaires from second-level schools and sixth-form colleges in the NWGSA Region (10 from the NI part and 16 from the Donegal part of the region).

Our consultations with *internal stakeholders* entailed the design and carrying out of staff and student surveys at each of Ulster and LYIT (i.e. four dedicated surveys):

- Indecon/LE Survey of Staff at Ulster;
- Indecon/LE Survey of Students at Ulster;
- Indecon/LE Survey of Staff at LYIT;
- Indecon/LE Survey of Students at LYIT.

These surveys were undertaken electronically through adaptation of the survey questionnaires in respect of Ulster's and LYIT's respective internal staff and student communication systems. The numbers of responses gained in each case were as follows:

- ❑ Indecon/LE Survey of Staff at Ulster (all campuses) resulted in 441 completed survey questionnaires;
- ❑ Indecon/LE Survey of Students at Ulster (all campuses) elicited 863 completed survey questionnaires;
- ❑ Indecon/LE Survey of Staff at LYIT (undertaken at LYIT's Killybegs campus as well as its Letterkenny campus) resulted in 151 completed survey questionnaires;
- ❑ Indecon/LE Survey of Students at LYIT (Killybegs campus as well as the Letterkenny campus) elicited 110 completed survey questionnaires.

The other key elements of our internal consultation programme were (in addition to our regular liaising with members of the Project Team comprising members from Ulster and LYIT):

- ❑ Indecon/LE presentation to, and discussion with, the EB (Executive Board) of LYIT on 27 August 2008;
- ❑ Indecon/LE presentation to, and discussion with, the SMG (Senior Management Group) at Ulster on 6 October 2008;
- ❑ Consultations with each of the three LYIT/Ulster Scoping Study Working Groups on 6 November 2008 (face-to-face and *via* video-link);
 - Working Group on HE operating environment and collaborative models
 - Working Group on external consultation and knowledge/technology exchange
 - Working Group on course/programme development and research
- ❑ Presentation of our preliminary emerging findings to the Scoping Study Steering Committee on 7 November 2008 – those in attendance included Dr. Don Thornhill (Chairman of the National Competitiveness Council in RoI) and Professor Sir David Melville (Chair of Lifelong Learning UK).

4. Strategic and Policy Context

The strategic and policy context of the Scoping Study comprises a number of levels, the highest of which is to ensure enhanced educational attainment and skills acquisition as key inputs into the Lisbon Goal, which aims to make the EU “the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion”.

High-level policy studies in the context of all-island initiatives, such as the Comprehensive Study on the All-Island Economy (2006) and the All-Island Skills Study (2008), emphasise cross-border collaboration in higher education.

Various studies and initiatives underway in the NWGSA Region recognise the importance of improving educational attainment in the region and the importance of enhancing co-operation between Ulster and LYIT as the two principal HEIs in the NWGSA Region.

Our review of the strategic context of the Scoping Study suggests the importance of strategic collaboration between LYIT and Ulster across the range of HE activities (at all levels), including full-time undergraduate courses, postgraduate courses, lifelong learning and knowledge/technology exchange with business and industry.

A theme cutting across all these aspects of potential collaboration between Ulster and LYIT is the importance of developing skills and qualifications in science, technology, engineering and maths (STEM). Enhancing skills in STEM are increasingly being recognised as critical to the development of knowledge-based activities in business, finance and healthcare as well as in science, engineering and technology.

Owing to its peripheral location in the island of Ireland, we believe that the need to enhance STEM is critically important in the NWGSA Region and an effective means by which this may be achieved in practice is through enhanced strategic collaboration between LYIT and Ulster as the leading third-level education providers in the region.

5. Socio-Economic Profile of the NWGSA Region

Our socio-economic profile of the NWGSA Region has revealed the following results.

1. The NWGSA Region has a large population base amounting to almost 500,000 persons (based on 2006 figures). This represents a 4% increase on the level in 2002 and the level and recent growth in population are important in determining the availability of a critical mass of population in the NWGSA Region to support demand for HE.
2. While population density across the region is below that for NI and RoI, there are a number of areas of high population density, including Derry/Londonderry and Letterkenny.
3. Within the NWGSA Region, recent population growth has been strongest in Donegal (7% between 2002 and 2006), bringing the county’s population to 147,264 persons in 2006. The NI part of the region saw its population expand by 3% over this period, to reach 349,700 persons by 2006.

4. The population of the linked Letterkenny-Derry Gateway amounted to 125,490 persons in 2006. Outside the major urban areas of Dublin, Belfast and Cork, the Letterkenny-Derry Gateway has the largest population base among the 14 gateway cities/towns in RoI and is one of the largest inter-urban areas in the island of Ireland.
5. With a population of 17,586 persons in 2006, Letterkenny enjoyed the fastest growth in population out of the 11 cities and towns in RoI with a HEI since 2002 (15% growth cumulatively or 3.7% per annum on average during 2002-2006).
6. The proportion of the population in the 0-14 year age cohort is relatively high in the NWGSA Region compared with RoI and NI, suggesting a comparatively high 'latent' demand for HE in the region for the next few years.
7. However, during the past decade (1996-2006), there was no growth in the number of residents in the NWGSA Region aged 15-24 years and the number of people in this age category fell by 0.6% per annum in Donegal.
8. Projections for population developed by Indecon/London Economics (based on official population forecasts in NI and RoI) suggest the following outcomes in terms of the likely pattern of prospective demand for HE in the NWGSA Region over the medium- to long-term (until 2021):
 - i. A likely driver of the growth in HE demand in the NWGSA Region will be from the 25+ age cohort. This relates to 'non-traditional' students and lifelong learners, including people seeking to enhance or differentiate their skills;
 - ii. Across the NWGSA Region, the absolute and relative population in the 'traditional' new entrant (15-24 years) cohort is expected to decline and this may lead to a decline in HE demand among this group (although not necessarily so in the event that a greater proportion of the persons aged between 15 and 24 years enrol on HE courses, which may be likely) – thus, it is not necessarily correct to say that there will be a decline in the traditional segment of the HE intake in the NWGSA Region over the coming years.
9. Despite the gains in student enrolments achieved by LYIT and Ulster in the NWGSA Region in recent years, the level of higher educational attainment (among residents) is relatively low in the NWGSA Region: in the NI part of the Region, 17% of the working age population had a primary degree or higher in 2006 compared with 23% in NI as a whole; in the Donegal part of the NWGSA Region, 12.5% of persons aged 15+ years had a primary degree or higher qualification in 2006 compared with 18.5% for RoI. These facts are likely to reflect the structure of economic activity and employment in the region.

10. The NWGSA Region has a lower proportion of its employment base in market services activities (36% versus 41% across the RoI and 40% across NI). In non-market services – which largely equates to the public sector – 39% of total employment in the region is located in this sector. This compares with 40% across NI but is substantially above that across the RoI (28%). Within the NWGSA Region, it is notable that the primary sectors (including agriculture and utilities) are relatively important employers in Donegal, while the construction sector is also relatively important in that county. Reflecting national developments, the region will need to grow high value internationally-traded market services activities.
11. Finally in respect of our socio-economic profile, notwithstanding the positive developments in relation to FDI, key shares of foreign-owned activity in the NI part of the NWGSA Region remain disproportionately low in relation to relative size of the population of this part of the region. In Donegal, the figures indicate a concentration of foreign-owned company employment in pharmaceuticals and healthcare, with companies in this sector accounting for half of all IDA Ireland-assisted firms in the county. The ICT sector is also an important employer in Donegal. These areas of concentration point to the importance of developing skills in STEM subjects.

6. Higher Education Operating Environment – Comparative HE Systems in RoI and NI

We have carried out a detailed review of the respective HE operating environments in NI and RoI aimed at assessing whether there might be any systems differences that would act to impede the possibility of enhanced strategic collaboration between Ulster and LYIT in the context of the NWGSA Region. Our review of HE systems in each jurisdiction has also considered the similarities, which would tend to make potential co-operation easier.

Our overall assessment is that some institutional factors currently in place might limit the scope to develop full-time, undergraduate courses separately or jointly by LYIT and/or Ulster in the NWGSA Region – namely the MaSN Cap in NI and differences in tuition fees between NI and RoI.

However, if these constraints are overcome, we believe there could be significant potential to develop full-time undergraduate provision jointly in the NWGSA Region. While the MaSN cap is likely to remain a feature of the NI HE system, it may be possible to review its application in the case of STEM subjects and there is also the possibility of the cap being differentiated on a regional basis.

We consider that there is also likely to be significant scope to develop courses in lifelong learning and at postgraduate level where differences between the two HE operating systems appear to be less significant and the MaSN Cap does not apply. Lifelong learning in this context is interpreted broadly – including part-time study for people hoping to acquire third-level qualifications and part-time postgraduate study for people with existing third-level qualifications.

Apart from tuition fee differences and the MaSN Cap, we do not believe that other differences in the HE operating environments North and South are likely to impede enhanced collaboration between LYIT and Ulster for the betterment of the NWGSA Region. Existing joint initiatives between LYIT and Ulster – notably the MSc in Innovation Management in the Public Services – clearly demonstrate how differences in operating systems can be overcome (graduates from this novel programme gain dual accreditation, namely an MSc with the Ulster brand and RoI HETAC Level 9 branding, which is both unique and attractive to students).

7. Higher Education Operating Environment – Profiles of Ulster and LYIT

Both LYIT and Ulster have experienced impressive expansion in recent years and this has been an important input into the positive socio-economic developments occurring in the NWGSA Region, including population growth, employment growth and the presence of a number of innovative enterprises in the Donegal and NI parts of the region. It is also important to recognise that the growth in student numbers achieved by Ulster and LYIT has come against a more difficult market environment – as stated earlier the number of residents aged between 15 and 24 years has declined in certain parts of the region.

Ulster is the largest provider of HE in NI – in fact in the island of Ireland – with approximately 24,000 students in 2007/08. It is a significant contributor to the NWGSA Region: in 2007/08, Ulster’s Magee and Coleraine campuses together accounted for over 9,000 full-time and part-time undergraduate and postgraduate students and both campuses currently employ in the region of 2,000 staff (headcount basis) (almost 1,400 on full-time equivalent basis).

Taking Ulster’s Magee and Coleraine campuses together, our analysis reveals that part-time undergraduate and postgraduate numbers have grown more rapidly than full-time undergraduate and postgraduate numbers in the NWGSA Region during the past decade. This trend reflects Ulster’s commitment to lifelong learning in the NWGSA Region and is further illustrated by the fact that part-time students as a proportion of all students has risen at Ulster’s Magee and Coleraine campuses during 1997/98-2007/08.

Magee and Coleraine together had over 7,600 undergraduate enrolments in 2007/08, making up almost 40% of Ulster’s total undergraduate population in that year. Key faculties at Magee and Coleraine are Life and Health Sciences (1,749 and 990 undergraduate enrolments at Coleraine and Magee respectively in 2007/08), the Ulster Business School (1,119 and 618 undergraduate enrolments at Coleraine and Magee respectively in 2007/08) and Arts (1,063 and 609 undergraduate enrolments at Coleraine and Magee respectively in 2007/08). Also important at Magee are the Faculty of Social Sciences and the Faculty of Computing and Engineering – the latter accounted for 619 undergraduate enrolments and the former for 579 such enrolments in 2007/08.

Turning to postgraduate students at Ulster, most (84% in 2007/08) are enrolled on taught programmes (which involve research *via* dissertation or minor thesis). Well over 2,000 students were enrolled on taught and research postgraduate programmes at both Coleraine and Magee in 2007/08. By faculty, the largest postgraduate enrolments in Coleraine occur in Life and Health Sciences, Social Sciences and Arts; the largest postgraduate enrolments at Magee occur in Social Sciences, the Ulster Business School, Arts and Life and Health Sciences.

In terms of mode of study, most (72% in 2007/08) postgraduate study at Ulster is undertaken on a part-time basis. By type of postgraduate study, the majority of part-time postgraduate students at Ulster are enrolled on taught programmes while most of the research programmes at Ulster (that is, research masters and doctoral study) are accounted for by full-time postgraduate students. Within the NWGSA Region, part-time postgraduate study is larger than full-time postgraduate study in Coleraine and Magee – part-time study is especially important among taught programmes in Coleraine, particularly in Life and Health Sciences (in 2007/08, 1,063 part-time students were enrolled in taught postgraduate programmes, of which 886 or 83% were enrolled in the Life and Health Sciences Faculty).

The relatively large numbers of student enrolments in part-time (taught) postgraduate study at Ulster further reflects Ulster's commitment to lifelong learning and skills development across NI and beyond (as some of the students are resident in RoI).

Ulster has a strong record of achievement in research. In the most recent UK Research Assessment Exercise (RAE) (December 2008), there were especially strong performances in Nursing and Celtic Studies (with 100% of research in these areas classified as international quality). Across the university as a whole, 86% of research activity was rated as being of international quality and almost 20% classed as world-leading. The results also confirm Ulster's research excellence in Biomedical Sciences, Law, Architecture and the Built Environment, Media Studies and Art and Design. Significant improvement in the quality of research in areas such as Computing and Nanotechnology were also recorded.

Ulster's campuses in the NWGSA Region play an important role in its research strengths. Coleraine is home to the Centre for Molecular Biosciences, which is at the heart of international research into molecular and nutritional aspects of degenerative diseases and microbial and pharmaceutical biotechnology and comprises approximately 200 research staff and doctoral students. The Centre for Functional Genomics, established in Coleraine in October 2003 at Ulster's Coleraine campus with £2m (€2.2m) funding from the EU Programme for Peace and Reconciliation, aims to augment the existing world-class biotechnology and biomedical facilities at Coleraine by creating a specialist Centre of Excellence in Functional Genomics (CFG), concentrating on research projects that may have commercial impact on biotechnology, biomedicine or high-added-value food production. The Centre for Coastal and Marine Research is also located on the Coleraine campus, providing a world-class facility for research into coastal environments and coastal geology, archaeology and management.

As well as Celtic Studies, other research strengths at Magee include: IT and Electronics; Creative Multi-media; Design; International Business; Psychology; Nursing; and areas of Arts and Social Sciences (History and Social Policy). Centres of Excellence include the Intelligent Systems Research Centre (ISRC), the Academy for Irish Cultural Heritages, the Institute of Ulster Scots Studies, the Transitional Justice Institute and INCORE (International Conflict Research). Also notable is the fact that there are a number of initiatives currently underway at Magee with the potential to boost research activities at this campus as well as further developing its provision of niche undergraduate and postgraduate courses. The new initiatives include the Creative Technologies (Industries) Research Centre; the Centre for Postgraduate Professional Legal Education; the Clinical Translational Research and Innovation Centre (CTRIC) at Altnagelvin; Financial Services; Construction, Quantity Surveying and Spatial Planning; and Psychology.

Knowledge/technology exchange and the commercial exploitation of ideas are promoted by the Office of Innovation at Ulster through a range of initiatives and ongoing collaboration with business and industry (which is appropriately widely defined to include new starts and SMEs as well as international businesses with facilities in NI and the NWGSA Region). Ulster's participation in such activities includes collaboration with local business and industry through the FUSION Programme (an all-island initiative managed by InterTradeIreland) and Knowledge Transfer Partnerships.

Ulster's science research parks at Coleraine, Magee and Jordanstown are aimed at supporting the clustering of knowledge-based companies. The Magee Science Park focuses on software development and advanced IT, the Coleraine Science Park on life, health and environmental technologies and the Jordanstown Science Park concentrates on engineering, medical devices and software. The science parks at Magee and Coleraine have been successful in incubating a range of entrepreneurial ventures and in generating significant new high quality employment locally.

Within the Magee Science Park, the Technology and Software Innovation Centre (TSIC) provides 3,000 sq ft of office space. A Software Development Centre provides 4,000 sq ft of space for companies graduating from TSIC or ICT-based R&D companies seeking to establish a close and dedicated interaction with Ulster. The facilities at Magee have seen 10 firms 'graduating' in the past five years and 9 are currently under incubation (employment growth to date among the 10 graduator firms is estimated to be approximately 50% and the 9 firms currently under incubation account for about 70 employees). Ulster's Science Research Park at its Coleraine campus, concentrating on life, health and environmental technologies, reflecting Coleraine's international research excellence in the life and health sciences, contains the Science Innovation Centre (SIC), which provides a strong location for bioscience R&D companies and also for companies developing software for the healthcare sector and bio-informatics applications. The Science Innovation Centre provides 8,500 sq ft of office space and laboratory space. In the past five years at Ulster's Coleraine Science Research Park, 12 firms have graduated and 8 are currently active employing in the region of 30 staff; employment among the current 11 firms under incubation is approximately 50 and most of these firms involve local entrepreneurs.

LYIT is the leading third-level education provider in Donegal. Established in 1971, it has approximately 3,000 students, comprising in the region of 2,500 full-time students and 400 part-time students over two campuses, the main campus in Letterkenny (the largest urban centre in Donegal) and the tourism and hospitality campus in Killybegs, the largest fishing port in RoI.

The built environment at LYIT has undergone significant transformation over recent years. Investment in infrastructure of more than €50m (£45m) was made during 1997-2005, creating an additional 17,000 square metres of accommodation. The Business Development Centre (BDC), launched in 2000, was funded by €3m (£2.7m) from INTERREG and today provides 1,100 square metres of specialist incubation space and associated supports for new start-up businesses in high-tech sectors. Phase 2 of the BDC development is due to be completed at the end of 2008 and will add an additional 400 square metres at a cost of €2.7m (£2.4m) – funding is *via* Enterprise Ireland under the NDP. Further research facilities encompassing 700 square metres at a cost of €1.2m (£1.1m) will be constructed in conjunction with Phase 2 of the BDC, funded by the Department of Education and Science under the NDP. It is envisaged that the total 2,200 square metres of space dedicated to specialist research and business incubation facilities at LYIT will be complete in February 2009.

In 2007/08, 18 firms were tenants of the BDC and the number of firms fully spun-out from the centre totalled 19 during 2003/04-2007/08. The planned completion of the BDC should see more tenants being accommodated and even more high-tech spin-out activity in the coming years.

Most courses on offer at LYIT are at bachelor degree or higher – of the 66 courses in 2007/08, over 75% were at these levels, including 20 bachelor degrees at honours level and 6 postgraduate degrees at masters level. The latter included that MSc in Innovation Management in the Public Service, a unique, specialist course offered jointly by LYIT and Ulster on a part-time basis throughout the island of Ireland and an example of successful existing co-operation between the two institutions.

The growth in undergraduate numbers in the Schools of Engineering and Science at LYIT is also noteworthy, not least in the context of encouraging greater study of STEM subjects at third-level (and in view of the aforementioned challenging market in Donegal, in which the number of residents aged 15-24 years declined during 1996-2006).

Like Ulster, LYIT has a strong tradition of catering for mature students (those aged 23 years plus) – in 2006/07, mature students accounted for 22% of all undergraduates, illustrating LYIT's commitment to lifelong learning in the NWGSA Region.

At postgraduate level, LYIT offers a range of taught Masters degrees in the Schools of Business and Science. The largest of these, in terms of student numbers, is the MSc in Innovation Management in the Public Service, which is offered jointly (as stated above, on a part-time basis) with Ulster and is jointly accredited in both the RoI and the UK (demonstrating that the differences in accreditation between RoI and NI are unlikely to impede new course development on a joint basis between Ulster and LYIT).

Notwithstanding its relative small size, LYIT benefits from a number of research activities, including marine biotechnology (CAMBio) and electronics, production and innovation (EpiCentre), which brings together Ulster, LYIT and NWRC (North West Regional College). In December 2008, it was announced that the EpiCentre project at LYIT is to benefit from Enterprise Ireland funding of over €1m (£1.1m) to aid the construction of the WiSAR Lab within the project (Wireless Sensor Applied Research). This is a significant development for LYIT and the NWGSA, not least because of LYIT's collaboration with Ulster in the EpiCentre project and the fact that there is also collaboration between EpiCentre and CAMBio (and the Machine Vision Research Group at LYIT, which is active in games programming, *inter alia*).

8. Existing Collaboration between Ulster and LYIT

The extent of collaboration between LYIT and Ulster has expanded in recent years and plays an important role in supporting the development of the linked Letterkenny-Derry Gateway and the NWGSA Region.

Initiatives in joint course development between Ulster and LYIT include:

- The MSc in Innovation Management in the Public Service – jointly accredited by HETAC and Ulster (the only such course in the island of Ireland to be so accredited), this postgraduate programme had a total stock of 61 students enrolled in 2007/08 (all cohorts) and produced 25 graduates in 2006/07 (11 from NI and 14 from RoI); and
- The Postgraduate Certificate in Higher Education Practice (PgCHEP) – this course is delivered by Ulster to LYIT lecturing staff at LYIT as a means of ensuring high quality standards at LYIT and offers graduates the possibility of proceeding to obtain diploma and masters qualifications in higher education.

Further, Ulster's Diploma in Nursing at LYIT provided the foundation for the subsequent development of LYIT's own suite of nursing degrees, namely the BSc (Hons) in General Nursing (annual intake of 30 students), the BSc (Hons) in Intellectual Disability Nursing (annual intake of 20 students) and the BSc (Hons) in Psychiatric Nursing (annual intake of 25 students). These HETAC Level 8 courses commenced at LYIT in 2002 and are funded by the Department of Health and Children. The growth of nursing studies has been one of the main successes of LYIT in recent years and, coupled with the fact that Ulster pioneered (within the UK HE system) third-level nursing degree courses at Coleraine and Magee, it would appear that the NWGSA Region may have a competitive advantage in the provision of professional nursing education, not least in view of the fact that Letterkenny and Altnagelvin also boast major hospitals in close proximity to each other.

Joint initiatives between Ulster and LYIT in research and technology exchange include the aforementioned EpiCentre and the North West Science and Technology Partnership. Both initiatives also involve NWRC and are aimed at developing knowledge-based activities in the NWGSA Region.

9. Assessment of Existing Higher Education Provision in the NWGSA Region

An important aspect of the Scoping Study is our assessment of the existing level of HE provision in the NWGSA Region, taking account also of that in other key regions, including RoI and NI.

Our analysis suggests that, despite the noteworthy gains made by Ulster and LYIT over recent years, including their collaborative initiatives, there is a comparably low level of HE provision in the NWGSA Region and that preference for the region as a place to study is not a particularly strong factor currently influencing a student's choice regarding where to undertake his or her HE study.

There are a number of key elements underpinning this assessment.

The first such element is our analysis in respect of estimating the 'density' of HE provision in the region and other parts of the island of Ireland – namely the number of full-time HE undergraduate and postgraduate students per head of the population (in particular, the overall population and the working age population (aged 15-64 years) in each of the regions that we have considered).

Our analysis of HE density reveals a relatively low level of HE provision in the NWGSA Region. In particular, the number of full-time HE students per 1,000 of population is estimated to be 20 in the NWGSA Region (comprising an estimated 16 in the Donegal part and an estimated 22 in the NI part) compared with 23 in NI and 32 in RoI. According to the analysis, the highest estimated densities in the island of Ireland are in the Greater Dublin Area (GDA) and Greater Belfast, with an estimated density of 54 in each case. When deflated by the working age population (15-64 years) rather than the overall population, the estimates densities increase but the same relative pattern is apparent, with the estimated density of HE provision lowest in the NWGSA Region (lowest of all in Donegal) and highest in the GDA and Greater Belfast.

The other elements of our assessment of the existing level of HE provision in the NWGSA Region (in a comparative context) make use of the new Indecon/LE primary research evidence.

According to the Indecon/LE Survey of Business and Employers in the NWGSA Region (2008), the main perceived *strengths* of existing HE provision in the region are as follows:

- ❑ Overall capacity of HE facilities (59.7% of respondents indicated that this factor is a 'very important' or 'important' strength);
- ❑ Range of taught undergraduate courses (53.2%) (although almost 1-in-4 also felt that this is a 'very important' or 'important' weakness);
- ❑ Quality of graduates (52.9%).

However, none of the above factors were perceived to be particularly significant strengths, judging by the magnitude of the proportions indicating 'very important' or 'important' strength in our business/employer survey.

The main perceived weaknesses of existing HE provision in the NWGSA Region (according to respondents of our business and employer survey) include:

- ❑ The extent and depth of collaboration between higher education institutions and business (35.3% regarded this as a 'very important/important' weakness);
- ❑ The quality of incubation/support facilities for business start-ups (30% of participants regarded this as a 'very important/important' weakness);
- ❑ Range and quality of adult/life-long learning programmes (29.3% of respondents regarded this as 'very important/important weakness).

However, like the main perceived strengths, none of the main perceived weaknesses of HE provision in the region are viewed by local businesses and employers as particularly significant (judging by the magnitude of the proportions indicating 'very important' or 'important' weakness).

Turning to our surveys of students at Ulster and LYIT, our new primary research evidence indicates that the two most important factors in students' decision to study at Ulster (all campuses) are quality of their chosen course/programme (96% of respondents felt that this factor is 'very important' or 'important') and availability of a place on their preferred course (89%). Preference for the North West as a location to study emerged as the least important factor underpinning students' decision to study at Ulster (36% of respondents said that this factor is 'very important' or 'important').

Students at LYIT are in clear agreement with their counterparts at Ulster that quality of chosen course/programme and availability of a place on students' preferred course are the most important factors in students' decisions to study at LYIT (the proportions indicating 'very important' or 'important' factors were 92% and 91% respectively). Preference for the North West as a location to study was seen as the least important of factors cited in students' decision to study at LYIT (56.3% of respondents said that this is 'very important' or 'important').

With regard to our survey of post-primary schools and sixth-form colleges in the region, our new primary research evidence indicates that availability of preferred course is a key factor influencing a school-leaver's decision to study at a particular HE institution (96% of respondents felt that it is 'very important' or 'important'). On the other hand, a relatively low proportion of respondents (40%) indicated that preference for the region as a place of study is 'very important' or 'important'.

10. Views Regarding Enhancing Higher Education Provision in the NWGSA Region

We have considered both external and internal views regarding the potential benefits, and possible disadvantages, of enhanced collaboration between Ulster and LYIT.

The results from our survey of businesses and employers in the NWGSA Region are noteworthy for the strength of views placed on the need to enhance the range and quality of HE in the region and also for the very high degree of consistency in views among businesses and employers in the Donegal and NI parts of the region. Across the region, businesses and employers attach a very high degree of importance to improving the range and quality of undergraduate, postgraduate and lifelong learning study as well as initiatives aimed at enhancing commercialisation of research and R&D.

Second-level schools/sixth-form colleges in the region emphasise the importance of offering a wider range of undergraduate courses with professional accreditation and enhanced relationships/links with local businesses and employers in the NWGSA Region. Schools in the region also believe that opportunities to engage in study in each part of the region (e.g. Donegal as well as the NI part and *vice-versa*) are important in influencing students' decisions to remain and study in the region.

The survey results in respect of students at Ulster and LYIT echo the second-level schools survey results in that existing students at either institution are of the view that a greater range of undergraduate courses/programmes and more such programmes with professional accreditation would make studying in the NWGSA Region more attractive. Enhanced relationships/links with local business and industry are also felt to be important in helping to make third-level study in the region more attractive.

Our surveys of staff at Ulster and LYIT exhibit a high level of agreement on the importance of a range of potential benefits from enhanced collaboration between Ulster and LYIT. The very positive survey results reveal likely significant benefits as including the development of new undergraduate and postgraduate courses, raising the profile of LYIT and Ulster in NI and RoI respectively and opportunities for collaborative research and technology exchange. Also noteworthy is the consistent view that enhanced collaboration between Ulster and LYIT is unlikely to constrain possible linkages between each of these institutions and other HEIs.

11. Summary of Findings and Potential Collaboration Opportunities

The main findings of the Scoping Study are given in the following table.

Main Findings of the Scoping Study

There is considerable scope, and need, to develop and enhance the provision and role of higher education (HE) for the betterment of the NWGSA Region in the following areas:

- ✓ Full-time undergraduate course development;
- ✓ Full-time postgraduate programme development;
- ✓ Part-time undergraduate and postgraduate study – lifelong learning;
- ✓ Collaboration with local business and industry regarding information and technology exchange, R&D/innovation and the attainment of other higher-order functions (e.g. business development);
- ✓ Specialist incubation and graduate support for businesses in high-tech sectors with significant growth and employment potential.

Source: Indecon/LE.

A tabular summary of the factors underpinning the main findings of the Scoping Study are set out in the table below.

Factors Underpinning the Main Findings of the Scoping Study

1. At the highest level is the importance of enhancing educational attainment and skills acquisition as key inputs into the development of the knowledge-based economy (Lisbon Goal).
2. High-level policy studies in the context of all-island initiatives, such as the Comprehensive Study on the All-Island Economy (2006) and the All-Island Skills Study (2008), emphasise cross-border collaboration in higher education.
3. Various cross-border initiatives currently underway in the NWGSA Region recognise the importance of improving educational attainment in the Region and the importance of enhancing co-operation between Ulster and LYIT as the leading third-level education providers in the region.
4. The analysis of independent and official data reveals a relatively low level of HE provision currently in the NWGSA Region, which may act as a competitive weakness of the Region – on a per-capita basis, the number of full-time HE students in each part of the NWGSA Region is lower compared with other parts of the island of Ireland as well as NI and RoI overall.
5. The socio-economic profile of the NWGSA Region indicates a need for the region to ‘catch-up’ with elsewhere in the island of Ireland in terms of HE provision and in terms of higher educational attainment among its residents.
6. New survey evidence reveals very strong support among local businesses and employers for enhanced co-operation between Ulster and LYIT for the economic development of the NWGSA Region.
7. New survey evidence further reveals very strong support among both staff and students at each of Ulster and LYIT for enhanced co-operation in HE.
8. The areas identified above for enhanced collaboration are consistent with projected demand developments in HE within the NWGSA Region as well as reflecting the very positive support of external and internal stakeholders in the region
9. The proposed areas for enhanced collaboration also take account of differences in the HE operating environments North and South, including the cap on full-time undergraduate students in NI and fee differences – we believe these should not adversely affect plans for enhanced co-operation between LYIT and Ulster.
10. The proposed areas for enhanced collaboration also reflect the respective strategic plans of LYIT and Ulster.
11. Enhanced collaboration will also have long-run strategic value for each institution – for example, enhanced collaboration will permit Ulster to develop its presence in the South and will facilitate LYIT to broaden its learner base.
12. Enhanced collaboration is also likely to open up new opportunities for Ulster and LYIT to access EU research funds.
13. Enhanced collaboration is also likely to be significant in a wider EU and international context – it would serve to project a positive signal for the NWGSA Region that could lead to further benefits for the Region and for each institution.

Source: Indecon/LE.

The next table overleaf presents a tabular summary of potential opportunities arising from enhanced collaboration between LYIT and Ulster, under the main headings of cross-cutting themes, full-time undergraduate course development, full-time postgraduate course development, lifelong learning, research and technology exchange (which comprises a broad range of activities including training for employers and employees, mentoring support, IP and R&D).

Other possible areas that may work to the mutual advantage of both institutions concerns attracting international students to the NWGSA Region – given the natural beauty and unique features of the area and the opportunity to engage in study in a varied range of subjects.

Potential Collaborative Opportunities and Key Requirements

Key Cross-Cutting Themes of Enhanced Collaboration

- ✚ Maintain and develop existing collaboration between LYIT and Ulster
- ✚ Ensure a focus on developing STEM subjects vital for economic development (in business, finance and health as well as in science and technology)
- ✚ Maximise complementary strengths of Ulster and LYIT
- ✚ Tailor collaboration towards local school-leavers and employers - to ensure greater retention of the brightest students in the region, development of high value employment and inward investment potential

Full-Time Undergraduate Course Development

- ✚ Expand the range of courses to attract and retain more students in the region (e.g. arts as well as technology subjects, niche courses like renewable energy technologies, teacher training courses, 'para'-professional courses)
- ✚ Ensure rigorous quality standards on new jointly developed courses
- ✚ Consider incorporating work placements as part of new collaborative courses
- ✚ Expanding full-time undergraduate course provision will serve to create a 'critical mass' of HE in the region, which in turn has the potential to generate further demand for postgraduate and executive education study

Full-Time Postgraduate Course Development

- ✚ Maintain and develop the MSc in Innovation Management in the Public Service (including variants aimed at other executives)
- ✚ Maintain the Postgraduate Certificate in Higher Education Practice (PgCHEP) and subsequent qualification opportunities (at diploma and masters levels)
- ✚ Consider the development of a 'joint graduate school' with centres at Letterkenny, Magee and Coleraine
- ✚ Develop PhD capacity in Donegal (through doctoral study among LYIT staff and students at Ulster and other HEIs) - this would have the additional benefit of furthering developing research in LYIT
- ✚ Consider also the development of 'professional PhDs' in the region - e.g. DNSc (aimed at specialised nursing practitioners in the region) (the DNSc is currently available at all Ulster campuses)

Lifelong learning

- ✚ Given the importance of skills acquisition and projected demographic trends, lifelong learning will become critically important in the socio-economic development of the NWGSA Region
- ✚ It will be particularly important to ensure lifelong learning in STEM subjects, in order to help underpin skills development in relation to high value employment in the region
- ✚ Fundamental to maximising the potential of lifelong learning will be appropriate RPL/AP(E)L and flexible delivery modes (including e-learning) - important that a consistent approach to both is taken by LYIT and Ulster in joint course development

Research

- ✚ Specific areas of potential collaboration include marine, biomedicine, biotechnology, electronics, computing (including games), business and creative technologies
- ✚ Maintain and develop existing collaborative initiatives (e.g. EpiCentre)
- ✚ Consider the development of Creative Technologies (Industries) Research Centre between Ulster (Magee), LYIT and NWRC (North West Regional College)
- ✚ Potential to compete for future public research funds in ROI

Technology/Knowledge Exchange

- ✚ This has significant potential given recent and planned developments at LYIT and Ulster
- ✚ Enhanced collaboration *via* pooling of expertise would see greater availability of experts, wider geographic coverage (across the NWGSA Region), greater opportunities for student placements and support for such higher-order functions as business development and innovation
- ✚ Ensuring appropriate publicity and sign-posting of business support functions at LYIT and Ulster will be important

Source: Indecon/LE.

12. Concluding Remarks

The overall conclusion of the Scoping Study is that there is need to further augment the provision of higher education (HE) in the NWGSA Region. The two largest HE providers in the region – LYIT and Ulster – have a tradition of collaboration in teaching and research that has contributed to the development of the region, and we consider that enhanced strategic collaboration between them offers the most effective means of boosting both the quantity and quality of HE provision in the region.

The NWGSA Region has one of the largest populations in the island of Ireland and we believe there is now a unique opportunity for both LYIT and Ulster to come together in a more proactive way than hitherto to grow their market, retain a larger proportion of the brightest and most talented students in the region and from other parts of the island, enhance local worker skill levels and contribute significantly to the economic, social and cultural development of the region.

The next stage of the overall project will be to consider the development of the ‘blueprint’ of how best to realise the enhanced collaboration identified in the Scoping Study. We believe that the second stage of the project should examine (*inter alia*) the specific complementary strengths of each institution (as identified in our institutional profiles of LYIT and Ulster) and should also be mindful of various possible models of strategic collaboration among higher education institutions, including examples of existing collaboration internationally (which we have considered as part of our research in the course of the Scoping Study). Consideration also needs to be given to any possible legislative implications or requirements of enhanced strategic collaboration between Ulster and LYIT.

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