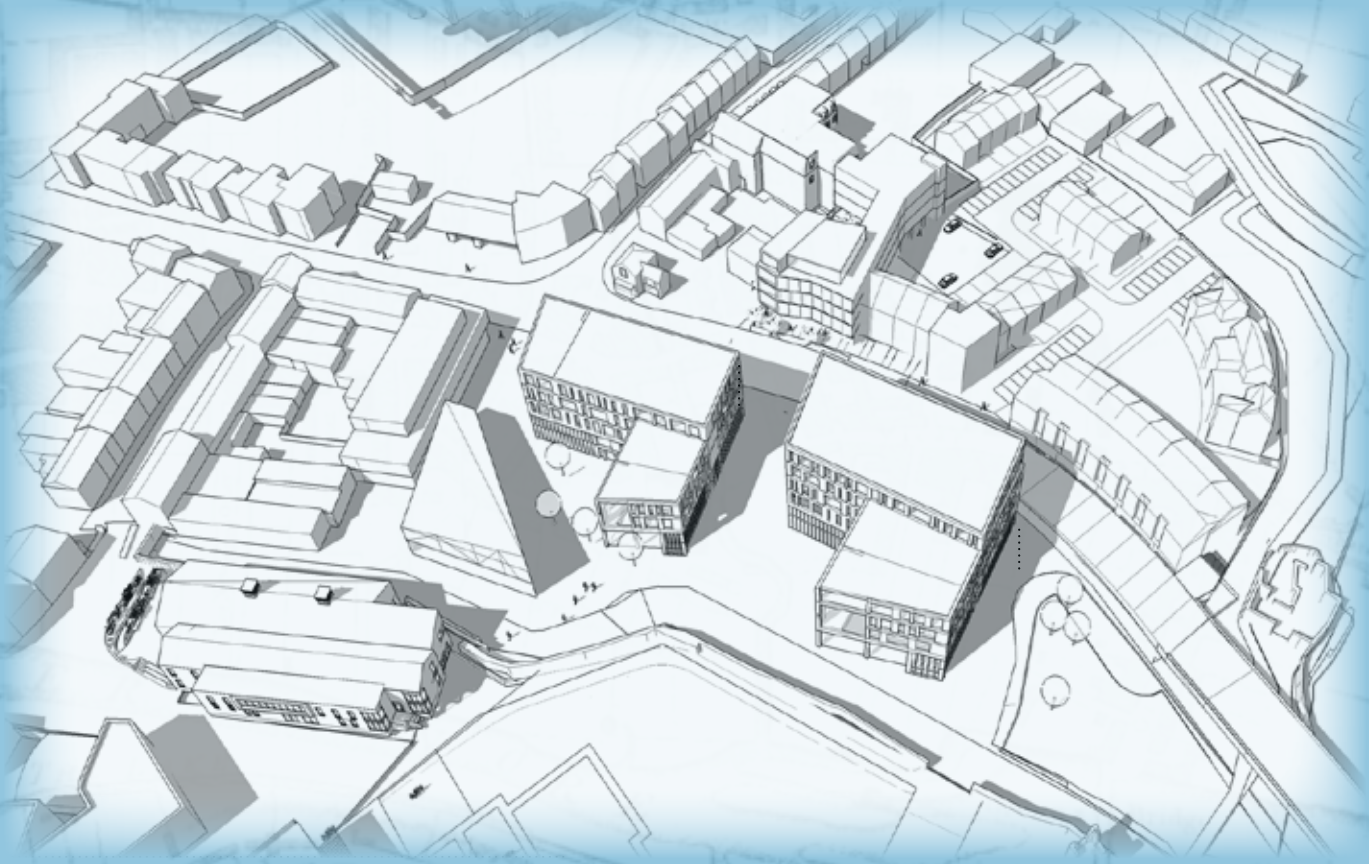
From Charter to Framework:

The Case for Higher Education Provision in Kilkenny



April 2018

Preamble

Kilkenny County Council has proactively supported the case for the establishment of a multi-campus Technological University of the South East (TUSE). This is an objective of the Local Economic & Community Plan (LECP) as per action 4.6, and has been prioritised by the Council's Strategic Policy Committee (SPC) for Economic Development, Tourism and Enterprise Supports, Chaired by Cllr Pat Fitzpatrick. In this regard, Kilkenny County Council contracted BH Associates to explore the case for a substantial higher education provision in Kilkenny to support the social and economic development of the city, county and region through the provision, attraction and retention of graduates with high level skills. The outline brief for same is attached at Appendix 2. The methodology employed in the preparation of the report included a review of future demographic demand for higher education, review of relevant international models/ benchmarks, conducting interviews with key stakeholders from business, enterprise, education and the wider Kilkenny community, and nationally. This included senior leaders from Maynooth University, The Institute of Technology Carlow and Waterford Institute of Technology, the Carlow-Kilkenny ETB, the HEA, SOLAS and the IDA. A round-table was also held with a wide range of education, agency and business stakeholders.

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Abbreviations

DES – Department of Education and Skills

ETB – Education and Training Boards

FET – Further Education and Training

HE – Higher Education

HEA – Higher Education Authority

HEI – Higher Education Institutions

ITC – Institute of Technology Carlow

NDIH – National Design Innovation Hub

NPF – National Planning Framework

PACE – Precision Agriculture Centre of Excellence

SOLAS – Further Education and Training Authority

TU – Technological Universities

TUSE – Technological University for the South-East

WIT – Waterford Institute of Technology

Foreword

I am delighted as Chairman of Kilkenny County Council to welcome this report, which sets out a framework to deliver a third level campus facility for Kilkenny.

Had the course of history not inconveniently intervened, Kilkenny would have had its university campus as far back as 1689. Our forefathers had the foresight to convince the decision makers of the day that Kilkenny was ideally placed to accommodate the country's second university at the time. The onus is now on Kilkenny County Council to ensure that this report will provide the impetus to finally deliver on the third level facility that Kilkenny deserves, and has patiently awaited for over three hundred and twenty years.

The demand for increased capacity of third level education places nationally over the next 10 years supports the case for third level capacity expansion in general, and for a campus facility in Kilkenny in particular. And the quality of life for which Kilkenny is renowned would provide for a rich student experience. Perhaps even more importantly, such a third level campus facility would act as a much needed stimulus for the social and economic development of the south east region, and help reverse the debilitating brain drain from which the region suffers.

We live in an era where there is an ever increasing demand for higher skills and up-skilling, and where our young people need to be prepared for the continually changing nature of employment in a fast changing world. We have the opportunity therefore in Kilkenny to ensure that the proposed third level facility is designed on a model of higher education that meets these future needs. While our preference is that such a facility would form an integral part of the new Technological University of the South East (TUSE), the report concludes that this is not the only available option.

I would like to take this opportunity to thank the wide range of education, agency, business and other stakeholders that proactively engaged in the preparation of this report. I wish to thank Mary Mitchell O'Connor, TD, Minister of State for Higher Education for taking the time to launch the report. This report is not an end in itself. I am well aware that our work is now only beginning. And I look forward to continuing to work with the wide range of stakeholders to follow through on delivering on the recommendations in this report to deliver the third level campus for Kilkenny.

Cllr David Fitzgerald
Cathaoirleach, Kilkenny County Council
April, 2018.

1 Introduction

Kilkenny County Council engaged BH Associates to explore the case for a substantial higher education provision in Kilkenny to support the social and economic development of the city, county and region through the provision, attraction and retention of graduates with high level skills. The terms of reference are at Appendix 2. In a separate, but potentially related, development Kilkenny County Council is engaged in an exciting, urban renewal project at the heart of their historic city – the Abbey Quarter, which is being developed through the Abbey Quarter Partnership (AQP).

The possibility arises for a synergistic relationship between the two projects by including the higher education provision in a custom-built facility as part of the urban renewal project. This could enhance the Abbey Quarter by including a vibrant academic community as a key element of the development. This would relieve providers of the need to source, or build, their own facility, although there would remain a requirement to agree an appropriate rent with the AQP.

BH Associates have had an opportunity to liaise with a wide range of individuals and organisations and, with the support of the Chief Executive and her team, we conducted a workshop in Kilkenny involving the major local and national stakeholders. In this report we set out our conclusions, recommendations and options against the background of Irish and international policy, the economic conditions of the South-East region, and models of provision from Irish and international experience that would have relevance to Kilkenny.

2 Executive Summary

- There is a convincing educational, social and economic case for locating tertiary/higher education and training provision in Kilkenny with the proposal aligning well with government policy across education – including meeting growing demand and drawing on policy objectives for technological universities.
- The proposal also aligns well with regional policy, especially as regards providing counter-weights to Dublin, based on making the South-East region more attractive than it currently is.
- The inclusion of Kilkenny as a campus of a multi-campus technological university in the South-East would enhance the development and impact of the university.
- Adopting a tertiary, or post-secondary, education model (i.e. combining further and higher education and training) would have the additional advantage of providing the broadest educational opportunities for the population of Kilkenny and the region, with career/learning pathways from Level 5 to Level 10 and reflect the growing importance in national policy of further education and apprenticeships in meeting national skills objectives.
- Provision should leverage off regional/local expertise and strengths (in craft/design, agriculture, and/or animation – as well as history/culture and heritage/tourism) in order to establish a national centre of excellence so that it strengthens the region's attractiveness nationally and internationally and builds sustainability.
- Smart specialisation strategies provide opportunities to deepen partnerships between PACE (agri-tech) and NDIH (design) with enterprise and regional authorities to contribute to, and strengthen, innovation and regional development;
- It is important that governance arrangements be inclusive, and encourage and support buy-in from all key stakeholders and develop a real link between the educational providers and the city/region.
- The opportunity to develop a campus in Kilkenny should be advanced as part of the proposed Technological University of the South-East (TUSE);[1] this would bolster the place-based/regional dimension of TUSE and provide the best chance for sustainable social and economic development and innovation.

3 Kilkenny City and County: History and Context

Kilkenny city began as an early sixth-century ecclesiastical foundation, becoming a major monastic centre from at least the eighth century. It owes a huge architectural debt to this period, which has left a wonderful legacy of medieval buildings and laneways. The city is bookended by St. Canice's Cathedral to the north, and Kilkenny Castle, built in 1195 by the Normans, to the south. The ancient city of Kilkenny was named after the 6th century Christian monk St. Canice, whose memory is enshrined in the name of the Cathedral. The word "Kilkenny" comes from the Irish 'Cill Chainnigh', meaning the Church of St Canice.

The Cathedral and the Black Abbey Dominican priory, both date from the 13th century. During the 17th century, Kilkenny was the unofficial capital of Ireland with its own parliament. The region around Kilkenny includes other important medieval buildings, including the 12th-century Kells Priory, an Augustinian complex surrounded by fortified walls. The city and region lie at the heart of Ireland's Ancient East tourism trail.

The second signifier of Kilkenny has been its association with design and craft. The commissioning in 1962 by Córas Tráchtála of the *Design in Ireland: Report of the Scandinavian Design Group* led to the establishment of the Kilkenny Design Workshops and provided a blueprint for design and the improvement of manufacturing.[2] The Design & Crafts Council of Ireland is located next to the National Design & Craft Gallery, opposite Kilkenny Castle. The latter was established in 2000 and is considered Ireland's leading centre for contemporary craft and design. Today, the city and county are a crafts hub, with approximately 60-70 craft enterprises, with shops along its winding lanes selling pottery, paintings and jewellery.

Of particular significance in the context of this report is the fact that Kilkenny has long been identified as a location for the development of a third level campus facility. Indeed, as far back as the 17th Century King James II granted a Charter for the establishment of a university in Kilkenny (in 1689). It was to be known as the Royal College of St Canice at Kilkenny and was to provide education in the arts and faculties, and to be governed by a corporate body including eight professors. While the demise of James II, following the Battle of the Boyne in 1690, put paid to the idea of the university, it is nonetheless more than a significant historical fact that it was deemed appropriate to grant a Charter to Kilkenny in the first place.

The city and county also have a strong tradition as a centre of agri-business and brewery. In recent decades, it has become home to knowledge-based industries, engineering and electronics, financial and insurance services, and information technology companies.

The city is compact, offering to its residents and visitors a very attractive social and work environment. The combination of these factors can provide the "supportive social milieu that is open to all forms of creativity – artistic and cultural as well as technological and economic".[3] Thus, as a location for an educational and research hub, it is likely to prove attractive to students, domestic and international, as well as to researchers, academic and other support staff.

4 Social-Economic Planning and Forecasting: Towards 2040

In considering whether a higher education provision would be desirable and sustainable in Kilkenny, and the optimal form of that provision, the overall economic conditions in Ireland and related skills demands, current and future, are relevant.

Over recent decades, Ireland has been utterly transformed and, since 2000, it has experienced rapid economic expansion during the Celtic tiger period, the deep trough of the Global Financial Crisis, the banking collapse and the Great Recession, followed by rapid economic recovery from 2012.[4] Today, Ireland is the fastest growing economy in Europe for the fourth year in a row. It is expected to grow by a rate of 4.2% and mature into sustainable performance over the medium term (see Table 1 below).[5] Unemployment, which had increased from 4.6% in 2004 to 15% in 2012, is forecast to average 5.4% in 2018. Improving household balance sheets and upward trends in underlying investment activity are expected to support solid growth over the forecast horizon. Longer term forecasts anticipate, inter alia, changing consumption patterns, new ways of working and increasing urbanisation. This will put pressure on resources and infrastructure.[6]

The highly open nature of the Irish economy means it is especially vulnerable to international shocks, such as Brexit, and to increasing competitive forces globally. The Department of Finance estimates that a "hard" Brexit could reduce Irish GDP by almost 2% within one to two years of WTO tariffs being imposed.[7] Notwithstanding these challenges, Ireland today is an advanced, developed country, an active member of the European Union, the United Nations and the OECD.[8]

Looking ahead, *Enterprise 2025* has focused on areas where Ireland has a competitive advantage: ICT (hardware and software), Health Lifesciences (including pharma, biopharma and medical technologies), International Financial Services, Internationally Traded Services, Engineering/Industrial Products and Agri-Food. Combined with new opportunities, the government's enterprise policy framework and strategy aim to have 2.18m people at work by the end of 2020 and to sustain full employment over the decade to 2025. This equates to an additional 266,000 people at work from a 2014 baseline.[9] The ambition is to achieve growth in Irish owned manufacturing and services exports by between 6%-8% annually to 2020; realise increased export intensity of Irish owned firms to between 55%-60%; support geographic market diversification (including to high growth emerging markets) so that Irish owned exports to non-UK markets increase by 50%; and attract and grow export oriented foreign direct investment.

Table 1 *Macroeconomic Forecasts for Ireland*

Year-on-Year % change	2017	2018	2019	2020	2021
Real GDP	3.5	3.4	3.2	2.8	2.6
Nominal GDP	4.5	4.6	4.5	4.2	4.1
Real GNP	3.3	3.2	3.0	2.6	2.4

Source: Department of Finance, *Ireland's Economy and Finances*, 2017. http://www.finance.gov.ie/wp-content/uploads/2017/05/Irelands-Economy-and-Finances-Report-Card.pdf

This strategy is underpinned by strong commitment to increasing public and private investment in research. Between 2008-2013, business investment in R&D grew by 31% while public spending fell by 22%. As the economy expands, the government is planning to increase Ireland's R&D intensity to 2.5% of GNP by 2020. This includes increasing the number of research personnel in enterprise to 40,000; increasing annual research masters and PhD enrolments by 500 to 2,250; doubling private investment in R&D within the public research system; further developing the network of research centres, building critical mass and addressing enterprise needs; and introducing a successor to the *Programme for Research in Third Level Institutions* (PRTLI) to provide investment in new facilities and equipment and the maintenance and upgrading of existing ones.[10]

The scale of anticipated population growth over the longer term is particularly noteworthy. Over recent years, the population has increased by more than 1.1m people, reaching 4.75m today. It is estimated to reach 5.75m by 2040 and 6.7m by 2060, and 10m across the island of Ireland.[11]

Despite a return to net outward migration in the years leading up to Census 2011, the population has continued to grow strongly due mainly to the high number of births in recent years.[12] From being in 4th place in 2006 (behind Iceland, France and Norway), Ireland now has the second highest fertility rate in Europe (after France) – 1.94 live births per woman compared with the EU average of 1.58.[13]

As people live longer, the population aged over 60 will more than double to 23% of the total, while those aged under 15 will decrease by about 10%.[14] Yet, due to the size of Ireland's young population, 60% of people in the labour force today will still be eligible workers in 2035.[15]

Spatially, the greater Dublin region will continue to be the prime magnet for growth. In 2011, Dublin accounted for 27.6% of total population while the Mid-East represented 11.7%; this compares with just over 25% and 6.7%, respectively, fifty years earlier. Based on current patterns of internal migration, and without policy intervention, the Greater Dublin region (Dublin and Mid-East) is projected to account for approximately 42% of the total population by 2040, with almost 40% of additional jobs projected in Dublin alone.[16] The ESRI has put forward alternative scenarios based upon more even regional growth.[17] Whatever happens over the next decades, it is clear that the future will be shaped by different types of living and working opportunities and arrangements, most of which will be around cities and larger towns.

At the start of the 20th century, 3,200 students were enrolled at six universities on the island of Ireland. Today, there are almost 200,000 full and part-time students enrolled across publicly funded institutions, principally in seven universities and fourteen institutes of technology (IoT). Legislation has been passed to enable consortia of IoTs to seek re-designation as technological universities.[18] Notably, the figure of 200,000 does not include students enrolled in the private higher education (PHE) sector, estimates of which suggest PHE providers enrol about 10% of higher education students in Ireland.[19] International students constitute 10.6% of all enrolments for 2016/17; 5.5% of full-time undergraduate new entrants are international.

This expansion reflects significant increase in national participation rates from 20% in 1980 to 69% today. Under its highest growth scenario, the Department of Education and Skills (DES) estimates a 25% increase in the level of mature and international students on current levels. Combined with an increase in the transfer rate from secondary to tertiary of 70%, it is estimated that *full-time* student demand is likely to increase by ~57,000 to reach ~227,244 by 2029, compared with ~170,000 today.[20]

5 National Tertiary Education Landscape, Demography and Demand

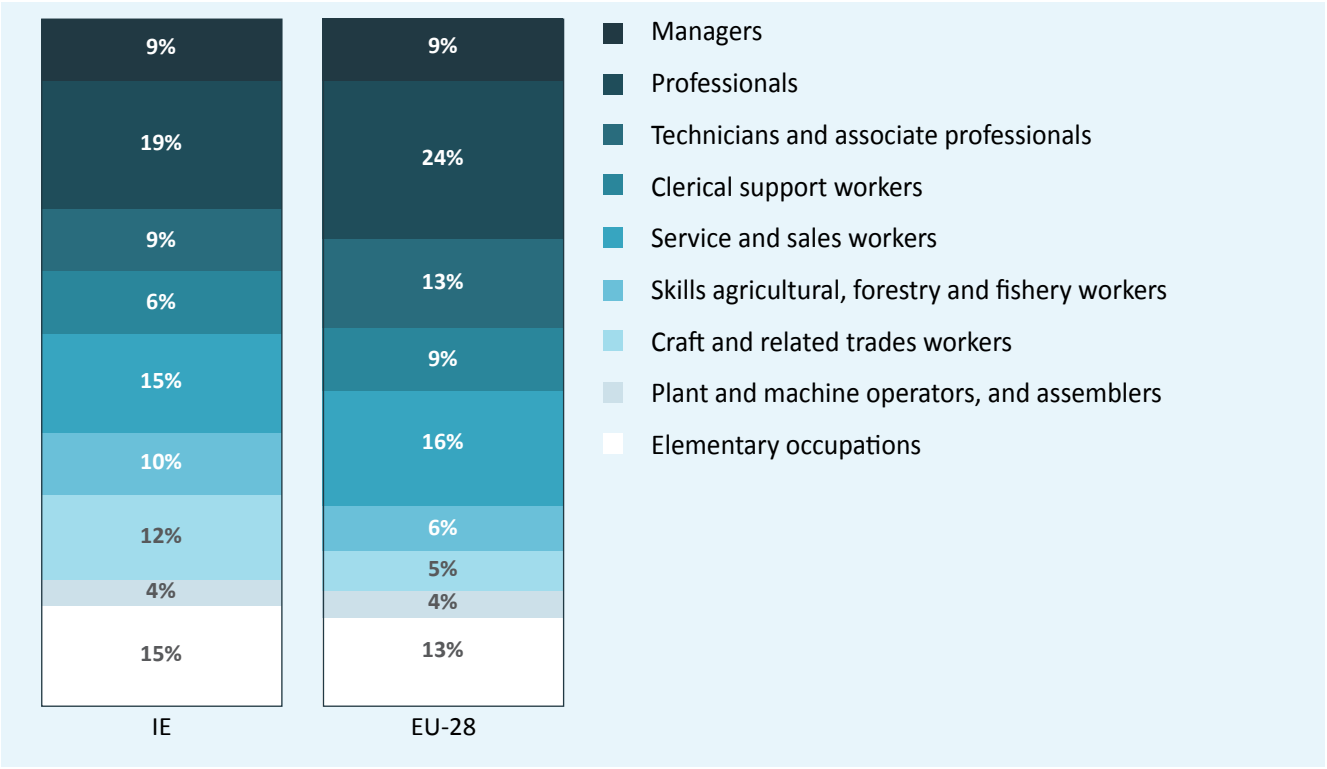
Ireland's performance compares well against other EU and OECD countries. It exceeds the EU average by 13.8% and is in the top decile for educational attainment of those aged 25-34, of whom 52.9% have a third-level education compared to the OECD average of 43%. Ireland's overall third-level education attainment level for those aged 25-34 has risen from 51.1 % in 2012.[21] Only Korea, Japan, Canada and Lithuania have a higher tertiary education rate for the 25-34 age group.

In contrast, the attainment level for the older age group is more modest, with only 27% of 55-64-year-olds having a third-level education. [22] Indeed, the growth estimates indicated above do not include part-time, mature or remote enrolments which, based on international experience, are likely to increase significantly in the future.

As the economy grows and evolves, there are significant challenges for Ireland, and for the education and training system generally. Some challenges arise from a decline in state funding allocations to higher education over the period 2008-2014 and correspondingly a fall-off in investment in facilities and equipment, as well as a lack of opportunities and supports for part-time learning and the low uptake of lifelong learning.[23] Other challenges derive from increasing regional concentration, with a very high concentration of graduate jobs in Dublin. The Higher Education Authority (HEA) indicates that 42% of 2017 honours degree graduates (compared with 33% in 2013/14 and 37% in 2014/15) are working in Dublin, whereas Dublin accounted for only 28.3% of the total population.[24]

The speed of Ireland's economic recovery has already led to some skills shortages. The tightening labour market is evidenced by the fact that of the 2016 graduates, 70% are in employment, of which 60% are employed in Ireland, and only 6% of all graduates are still seeking employment, nine months after graduation.[25] The *National Skills Strategy* noted gaps appearing for professionals and associate professionals across sectors in ICT, science and engineering, as well as graduates with core - or transversal - skills like languages and entrepreneurship.[26] While it is anticipated that the greatest skill demand is for professionals and associate professionals with multilingual skills, as Figure 1 below shows, there will be an on-going requirement for people with vocational and apprenticeship skills.[27]

Figure 1 *Distribution of Total Job Opportunities by Occupation, 2013-2025, Ireland & EU %*



CEDEFOP (2015) Ireland: Skills Forecasts Up To 2025 http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/ireland-skills-forecasts-2025

The HEA notes that responses to employment and skills challenges have highlighted the integral role that apprenticeship and skills schemes play as part of the higher education system. Such programmes offer a different mode of delivery as well as a diversification of entry routes, and in that way meet the needs of industry and the students who participate in the programmes. At the same time, the further education and apprenticeship system is being reformed and restructured under the authority of SOLAS, the Further Education and Training Authority; the *Further Education and Training (FET) Strategy 2014-2019* is currently being implemented.[28] The continued future development of apprenticeship and skills programmes in partnership with higher education, industry and business will be an essential driver of sustainable economic development.[29]

In the short-to-medium term, educational demand will be driven by labour market and demographic growth in the school population. However, over time, demand will increasingly come from currently under-served sections of society, e.g. first-in-family, as well as from mature and life-long learners, people requiring new/additional skills and knowledge over their lifetime, and increasing internationalisation.[30] Global competitive pressures will require that educational provision continues to evolve so that Ireland can remain a dynamic producer of new knowledge, with graduates who are innovation savvy and capable of living successfully into the next century.

These assumptions foresee a growing and multi-faceted role for the post-secondary or tertiary education sector in Ireland, with more varied provision across further education and training (FET), including apprenticeships, and higher education. Meeting these needs, will create a complex and diverse landscape of educational providers, students and programme provision, befitting a complex national and globally competitive society and economy. This will also require an effective strategy for more even development across Ireland, countering the pull of the greater Dublin region. The South-East region has an important role to play in this.

6 Socio-economic and Tertiary Education Demand in Kilkenny and the South-East

6.1 Overview

Today, the South-East has a population base of approximately 575,000 across its five counties of Wexford, Waterford, Carlow, Kilkenny and Tipperary, constituting approximately 11% of the State's population.[31] The heart of the region is framed by the cities/towns of Carlow, Kilkenny, Waterford and Wexford. Approximately 50% of the population lives in villages of less than 1500 people or in the open countryside.[32] There are two higher education institutions (HEI) – Waterford Institute of Technology and the Institute of Technology Carlow, enrolling almost 14,000 full/part-time students between them and primarily from the region or neighbouring counties (see Table 2). In addition, there are three Education and Training Boards (ETB), (Tipperary, Waterford-Wexford and Kilkenny-Carlow), three significant sea ports and a regional airport. The region is well connected by motorway internally, to Dublin and to other parts of Ireland.

Table 2 *Enrolments in WIT and IT Carlow by Domiciliary County, 2016-2017*

Domiciliary County	IT Carlow	Waterford IT
Carlow	1,098	188
Cavan	30	15
Clare	43	42
Cork	141	431
Donegal	46	14
Dublin	541	161
Galway	53	55
Kerry	31	89
Kildare	996	160
Kilkenny	507	888
Laois	501	184
Leitrim	22	6
Limerick	51	94
Longford	39	5
Louth	64	30
Mayo	65	28
Meath	150	57
Monaghan	27	14
Offaly	146	73
Roscommon	33	15
Sligo	20	14
Tipperary	127	861
Unknown Ireland		3
Waterford	107	2,410
Westmeath	65	34
Wexford	1,105	1,065
Wicklow	656	182
TOTAL	**6,664**	**7,118**

Source: HEA, ROI Enrolments by County and HEI, 2016-2017[33]

Since 1991, the overall population of Ireland has increased by 35% or by 1.4% annually on average. Between 2011-2016, the population grew by 3.7%, which is very high internationally and well above the Eurozone level of approximately 1.1%.[34] Average population growth for Kilkenny increased similarly by 1.4% between 1991-2016, but growth across the region varies.

While Ireland's overall population has been increasing, the natural increase has been declining since 2011. The decline ranges from 19% in Dublin to 37% in the South-East – a factor which accounts for a likely increase in the old age dependency ratio for the region.[35] These factors project significant demographic challenges for the region unless immigration – from returnees, internal migration and/or internationally – increases. Thus, while the South-East has experienced growth, looked at comparatively and overtime, the region's share of population growth has remained static.

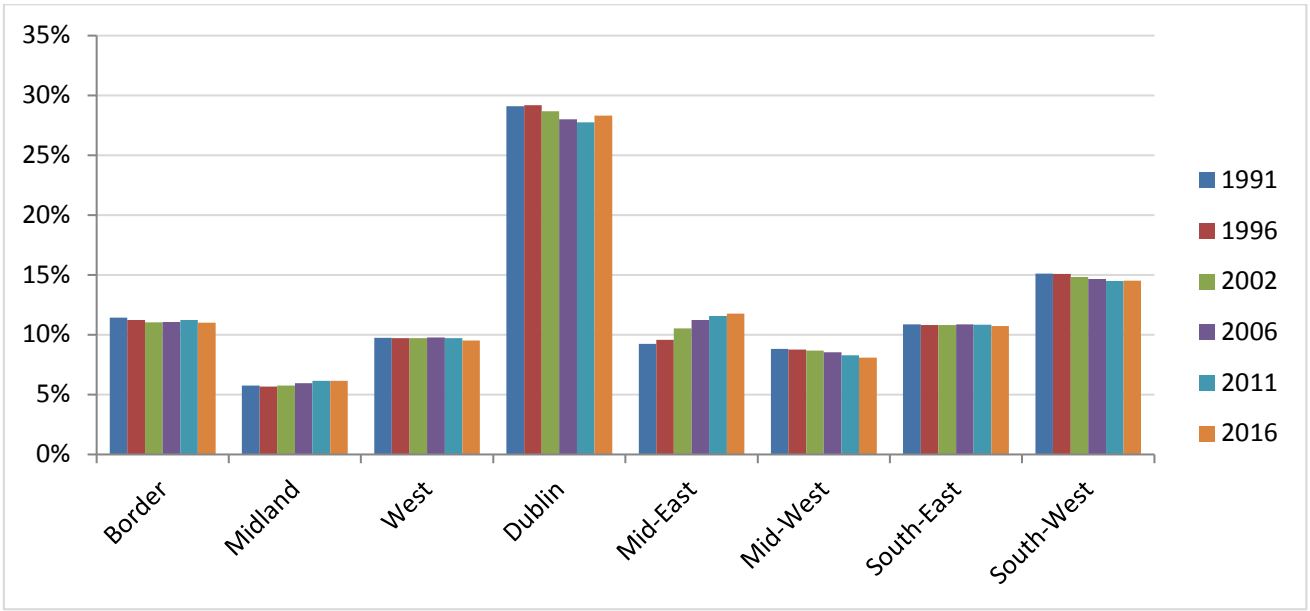
Table 3 puts these figures into perspective by comparing annual population growth per county in the region between 1991 and 2016, while Figure 2 compares population distribution across the country by region over the same period.

Table 3 *Average Annual Population Growth by County and Period*

	1991-1996	1996-2002	2002-2006	2006-2011	2011-2016	1991-2016
Carlow	0.3	1.8	2.4	1.7	0.8	1.6
Kilkenny	0.5	1.1	2.2	1.8	0.8	1.4
South Tipperary	0.2	0.8	1.3	1.3	0.1	0.8
Waterford	0.7	1.2	1.6	1.1	0.5	1.1
Wexford	0.5	2.0	3.2	2.1	0.6	1.9
Ireland	0.6	1.3	2.1	1.6	0.7	1.4

Source: Morgenroth, E.L. (2018) Prospects for Irish Regions and Counties. Scenarios and Implications. Dublin: ESRI. p18. https://www.esri.ie/pubs/RS70.pdf

Figure 2 *Population Shares by Region, 1991 - 2016*



Source: Morgenroth, E.L. (2018) Prospects for Irish Regions and Counties. Scenarios and Implications. Dublin: ESRI. p19. https://www.esri.ie/pubs/RS70.pdf

6.1.1 Tertiary Participation and Demand

Participation in post-secondary education in the region is broadly comparable with national rates with some notable differences. Nationally, 44% school leavers transfer to higher education, compared with 50% for Kilkenny. The rest of the region also demonstrates participation rates in higher education at or above the national average. In contrast, 28% are enrolled in second level/FET programmes nationally compared with only 23% of Kilkenny students; Tipperary South, Waterford City and Wexford are above the national average (see Table 4).[36]

Table 4 Destination of School Leavers in South-East

	Carlow	Tipperary (South)	Waterford City	Waterford County	Wexford	Kilkenny	South East	National
Total Cohort	**955**	**1,240**	**715**	**635**	**1,850**	**1,085**	**6,480**	**54,825**
Of which enrolled in								
Higher education	40%	43%	45%	48%	41%	50%	44%	44%
Second level/FET	28%	27%	29%	25%	30%	23%	27%	28%
Total education/training	68%	69%	74%	73%	71%	73%	71%	72%
Of those remaining								
Social welfare activity	12%	9%	7%	7%	11%	8%	9%	7%
Employment activity	12%	11%	9%	10%	11%	10%	11%	10%
Labour market participation	23%	20%	16%	17%	21%	18%	20%	18%
Other (emigration, other HE etc.)	*	*	*	*	*	*	*	10%

Source: SOLAS (2017) Profile of the South-East Region. Dublin: Regional Skills South East. Partnership for Skills/Skills and Labour Market Research Unit (SLMRU). http://www.regionalskills.ie/Regions/southeast/Profile-of-the-South-East-Region.pdf

Almost 25,000 students from the SE region were enrolled in universities, colleges or IoTs for 2016-2017 (see Table 5) In addition, there are a significant number of part-time students, enrolled in vocational education and training (VET,) and in undergraduate and postgraduate programmes.[37] Students from the South-East account for c.13% of full-time and c.11% of part-time entrants.[38] Over 8,000 students from the South-East attend either Carlow or Waterford IoTs, of which almost 1400 come from Kilkenny. A significantly larger number of students choose to study outside the region, as indicated in Table 6.

Table 5 County of permanent residence of Irish-domiciled Students, full and part-time, in all HEA-funded institutions, 2016-2017[39]

	Carlow	Kilkenny	Wexford	Tipperary	Waterford	South-East	National
FULL-TIME							
IoT	1,103	1,404	2,272	2,251	2,466	9,496	63,817
Universities	883	1,915	2,404	3,093	1,818	10,113	90,390
Colleges	32	129	97	495	136	889	6,198
SUB-TOTAL						20,498	160,405
PART-TIME							
IoT	450	491	664	518	698	2,821	18,957
Universities	139	227	253	384	294	1,297	15248
Colleges	7	12	19	27	17	82	1,273
SUB-TOTAL						4,200	35,478
TOTAL						**24,698**	**195,883**

Source: HEA Students Statistics.

Table 6 Where Students from the SE Region Choose to Study, 2016-2017

	Carlow	Kilkenny	Wexford	Tipperary	Waterford	South-East
Athlone IoT	16	20	30	70	8	144
Cork IT	23	125	67	440	301	956
DCU	214	301	619	143	156	1,433
DIT	110	171	390	149	118	938
IADT	15	26	108	19	19	187
Dundalk IT	6	15	21	11	9	62
Galway-Mayo IT	14	23	27	81	19	164
IT Blanchardstown	6	4	9	4	5	28
IT Carlow	1,098	507	1,105	127	107	2,944
IT Sligo	3	8	11	15	5	42
IT Tallaght	28	19	28	41	67	183
IT Tralee	9	13	20	65	25	132
Letterkenny IT	7	11	13	8	11	50
Limerick IT	30	65	42	878	60	1075
Mary Immaculate	9	75	46	464	112	706
Maynooth	194	250	355	128	138	1065
NCAD	15	11	31	7	10	74
NUIG	87	107	100	373	114	781
RCSI	10	29	23	28	18	108
St Angela's College	5	26	16	23	13	83
TCD	133	214	253	221	183	1,004
UCC	68	394	271	933	828	2,494
UCD	247	541	830	480	343	2,441
UL	75	328	223	1,187	344	2,157
Waterford IT	188	888	1,065	861	2,410	5,412
TOTAL	**2,610**	**4,171**	**5,703**	**6,756**	**5,423**	**24,663**

Source: HEA, ROI Enrolments by County and Institution, 2016-2017

CSO data shows that younger people who finish full-time education are significantly better educated than older people. There is a significant proportion of the population who completed education at an earlier age, and who could be a potential target group for life-long learning programmes. Among the population in the region, almost 20% ceased education at 15 years, which is lower than the national average, albeit there has been an improvement between the 2011 and 2016 census (Table 7).

Table 7 Average Age Education Ceased, by State and County, 2011, 2016

Average Age Education Ceased of Population Aged 15 Years and Over 2011 to 2016 by County and City, Statistical Indicator and Census Year

	2011	2016
State		
Number of Persons (Number)	3,003,490	3,097,052
Average Age Education Ceased (Number)	19.1	19.9
Carlow		
Number of Persons (Number)	35,230	36,554
Average Age Education Ceased (Number)	18.8	19.5
Kilkenny		
Number of Persons (Number)	63,173	65,454
Average Age Education Ceased (Number)	18.8	19.6
Wexford		
Number of Persons (Number)	97,353	100,606
Average Age Education Ceased (Number)	18.2	18.9
Tipperary		
Number of Persons (Number)	106,264	105,914
Average Age Education Ceased (Number)	18.6	19.3
Waterford City and County		
Number of Persons (Number)	74,812	76,314
Average Age Education Ceased (Number)	18.8	19.7

CSO, http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=EA033&PLanguage=0

6.1.2 Employment/Unemployment

During the recent recession, the South-East, along with the Border and Midland regions, recorded the highest unemployment rates. Unemployment peaked at around 20% during the recent recession in the region.[40] Tourism, agri-food and agri-tourism, manufacturing and business services have been the main economic sectors alongside newer emerging sectors such as ICT, pharma and medical devices. The South-East has the third greatest number of farm holdings in the country, with 20.8% of the total.[41] High-value added knowledge intensive services accounted for 10% of the region's employment.[42] Of those employed, 32.6% are in the top two categories of professional, and managerial/technical, which is somewhat behind the national average of 36.2%. The region has the highest proportion of unskilled workers, and the highest proportion of unskilled and semi-skilled workers combined.

IDA Ireland supported firms employed 14,918 jobs in the region, representing a 9% increase over 2016.[43] Enterprise Ireland companies currently support over 20,450 jobs, registering a 4% increase, similar to the increase recorded by Dublin and the Mid-East albeit lower than elsewhere.[44] Employment by NACE categories is indicated in Table 8.

Table 8 Persons aged 15 years and over in Employment by Region, Sex, NACE Rev 2 Economic Sector and Quarter, 0005

Persons aged 15 years and over in Employment (Thousand) by Region, Sex, NACE Rev 2 Economic Sector and Quarter

	2017Q2
South-East	
Both sexes	
Agriculture, forestry and fishing (A)	20.5
Industry and Construction (B to F)	51.4
Industry (B to E)	33.4
Construction (F)	18.0
Services (G to U)	142.8
Wholesale and retail trade, repair of motor vehicles and motorcycles (G)	29.3
Transportation and storage (H)	7.4
Accommodation and food service activities (I)	17.2
Information and communication (J)	4.9
Financial, insurance and real estate activities (K,L)	6.5
Professional, scientific and technical activities (M)	9.0
Administrative and support service activities (N)	6.4
Public administration and defence, compulsory social security (O)	10.6
Education (P)	16.4
Human health and social work activities (Q)	25.6
Other NACE activities (R to U)	9.6
Not stated	..
All NACE economic sectors	214.9

Source: CSO, http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?Maintable=QNQ40&Planguage=0

Despite growth, by 2016, employment was only 95.4% relative to the peak in 2008.[45] CSO data shows the unemployment rate in the region has fallen from its peak to 9.4% in Q4 2016.[46] This compares to the national average of 6.7%. Using gross value added (GVA), the ESRI estimates that while the South-East had the third highest per capita GVA in 2002, it now ranks fourth from the bottom.[47] In 2016, the region recorded the highest rate of unemployment at 10.8%,[48] and was the only region falling short of the Action Plan for Job's target.[49] With 10.7% of the population, the region has only 6.7% of all IDA jobs (62% of pro-rata distribution); the region is also reported as underperforming with respect to securing all identified EI funding schemes.[50] See also Table 4 above.

6.2 Challenges

While the region continues to recover economically, it underperforms relative to other parts of the country due to structural weaknesses and the highest proportion of unskilled and semiskilled workers in the State, generating lower incomes.[51] It also has a higher than national average age at which the population ceased education at 15 years. Despite historic attractiveness and strong cultural traditions, the region fails to attract and sustain sufficient high-skilled employment. [52]

The ESRI estimates that, in contrast to Dublin and the Mid-East, the South-East is likely to perform at the slowest rate of job creation in the decades to 2040, with traded-sector jobs declining slightly.[53] The Action Plan for Jobs noted the challenge is to "increase the rate of entrepreneurship and start-ups, raise productivity levels and create a competitive ecosystem for enterprise to flourish and invest in the region".[54]

A critical challenge will be retaining people in the region. This is due to several factors. Despite participation rates in higher education at/above the national average, the South-East region lags behind the national average with only 23% of people having a third level qualification compared with 29% nationally – which suggests those with qualifications are no longer residing in the region.[55] This is consistent with the fact that many students leave the region to pursue their studies. Of this cohort, a sizable proportion of graduates fail to return because the sectors for which they have been trained are developing more rapidly elsewhere. According to Action Plan for Jobs, 2015-2017. South-East Region, almost one-fifth of the region's young adult population (aged 15-19) migrate from the region as they "pass from late teens to early twenties".[56]

In addition, the widely dispersed population makes it difficult to provide access to education and labour activation services.[57] The absence of large cities in the region further limits the potential for population and employment growth.[58] Ready access to Dublin is both a plus and a minus – a swift route in as well as out.

Together, these factors are creating a regional brain drain – a vicious circle of demographic stasis, outward-bound students, and insufficient urban agglomeration and economic activity at the appropriate level.

The key to securing and retaining the appropriate scale of regional population and employment growth potential is strongly related to getting the balance right between the distribution of post-secondary educational provision in sectors which can, as the OECD says, move employment into the high skills quadrant.[59]

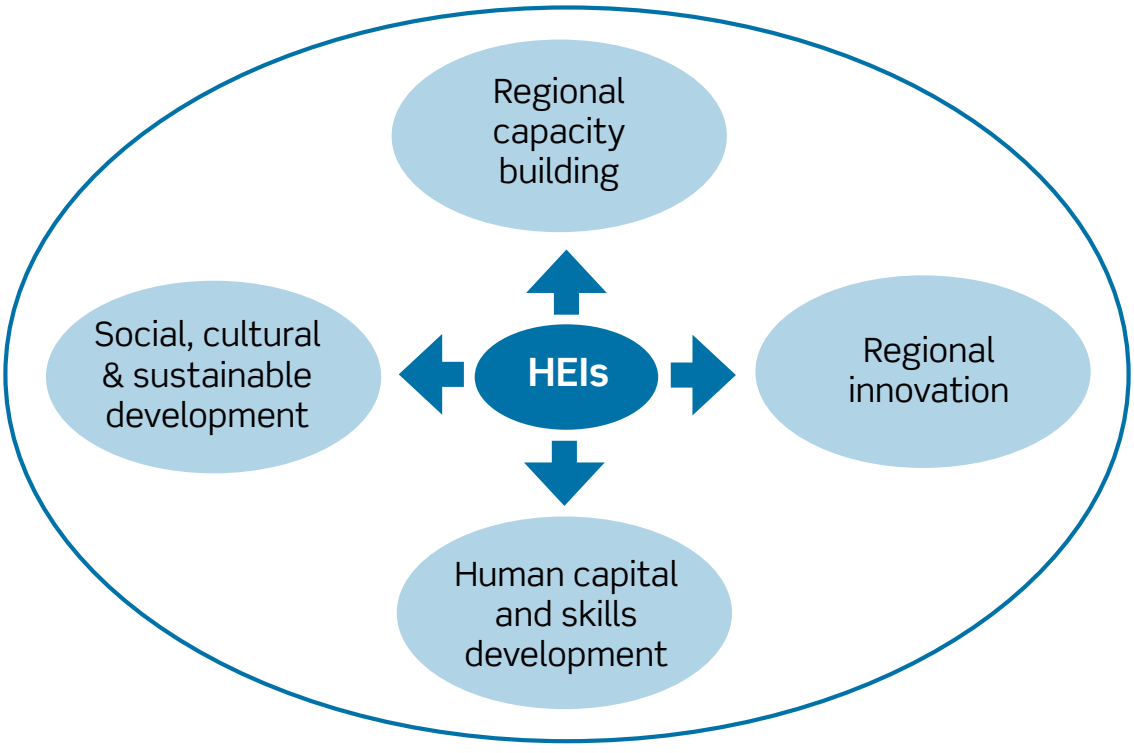
7 Tertiary Education, Economic Growth and Innovation Hubs

7.1 International Policy Background

In considering the opportunities for post-secondary/tertiary education facilities in Kilkenny city, and surrounding region, and the potential impact on the local economy, there are useful pointers in international policy and practice.

The role of regions is a special focus of governments in seeking to enhance innovation and economic growth. Successful strategies seek to encourage the rapid diffusion of knowledge, skills and best practice within a geographic area larger than a city, but smaller than a nation. The objective is to generate a local innovation system that can successfully create new industries and services, and form part of national and global value chains. Successful regions are seen to be those which attract key resources of talent and capital and involve interactions within a network of different actors. Different concepts, including innovation hubs, knowledge precincts and knowledge clusters, are used to describe these developments, based on adaptation of the "quadruple helix" (higher/education, business, government and civil society) framework. Regional core competences, arising primarily from human capital, provide an indispensable basis for identifying opportunities to "pivot" a regional economy. Tertiary education sits at the heart of developing an innovative knowledge eco-system as an "anchor tenant". See Figure 3.

Figure 3 *Higher Education in a National and Regional Context*



Source: OECD (2007) *Higher Education and Regions: Globally Competitive, Locally Engaged*, Paris.

The benefits for a region are multi-facetted. Society benefits from enhanced human capital through graduate retention and professional upskilling/updating, new products and services, knowledge exchange and transfer, technological innovation and improvements in societal health and lifestyle. Higher education institutions are a major employer, recruiting locally, and their students and graduates live and work locally. They are purchasers of goods and services, contributor and provider of cultural activity and urban life, a source of advice to business and the community, and a global gateway for marketing and attracting investment and mobile talent to the region.

In turn, higher education benefits from a close interaction with its region, which provides a significant and essential base of/for public support for higher education. By virtue of their location, HEIs are well-placed to contribute to social, cultural and economic life in the area and region. This close relationship ensures that educational and research programmes remain relevant to regional needs and demands, in addition to providing opportunities for on-going educational and training opportunities.

Both the OECD and the EU have been to the forefront in developing policies and benchmarking tools to encourage greater alignment between education and regional development.

- The OECD led a major project under the title *Higher Education in City and Regional Development* from 2005-2013. Because universities and other HEIs make a significant contribution to regional economic, social and cultural development, the OECD conducted a comparative review of how these issues are addressed, with the objective of reinforcing partnerships between institutions and regions.[60] This programme was followed by the HEInnovate initiative, led by the OECD Local Economic and Employment Development (LEED) programme in partnership with the EU.[61] HEInnovate is a self-assessment tool, for HEIs, to help them prioritise and action plan in seven key areas.

- The EU *Smart Specialisation Strategy* (RIS3) urges regions to develop a vision, identifying competitive advantage and setting strategic priorities to maximise their knowledge-based development potential. Higher education is seen as a key part. This includes a focus on identifying niche areas of competitive strength, bringing in a demand-driven dimension, innovation partnerships emphasizing greater co-ordination between different societal stakeholders, and aligning resources and strategies between private and public actors of different governance levels. Established in 2011, it implements the EU Communication, "Regional Policy contributing to smart growth in Europe 2020" and is a prerequisite to receiving funding from the European Regional Development Fund (ERDF).[62]

  In 2016, Higher Education for Smart Specialisation (HESS) was launched in cooperation with DG Education and Culture (DG EaC).[63] The overall aim has been to investigate and support partnerships between regional authorities and HEIs to align their strategies in pursuit of social and economic objectives, with a strong focus on research and innovation. The next phase is likely to put stronger attention on human capital development and smart specialisation, and specifically on Vocational Education and Training (VET) including adult learning, and linkages between VET and higher education.

In the policies developed, enablers for success include structures that open up higher education and involve employers and civil society organizations in various aspects of developing study programmes, in curriculum development, and in research and innovation. Students are a vital part of this relationship. High levels of tertiary education attainment in the region, attractiveness to investment and talent, and productive collaboration between business/industry, education/knowledge institutions, and the public sector/public entities are also important. Other factors include: identifying niche areas of specialisation

and competitive strength and aligning resources and strategies between private and public actors. Finally, emphasis is placed on the value of creating new spaces, new organisational forms, and new tools for the practical application of knowledge.

Achieving success is challenging. Establishing the appropriate multi-level governance arrangements between differing groups can be problematic. This can arise due to the lack of clearly defined sets of actors, and a lack of institutional or formal arrangements, and/or a shared vision and clear agenda. In addition, changing supply and demand conditions require flexible and innovative mechanisms to enable the new organisation to react, adjust or re-direct rapidly to the new needs. Priority-setting also presents challenges; hence the methodology, full information and disclosure, and transparent process are vital to enable decision-making. Selecting and engaging key actors, necessary for their expertise and knowledge, can be difficult due to multi-disciplinary and cross-sectoral factors and differences.

7.2 Irish Policy Background

The policy framework for, and landscape of, Irish post-secondary education has been undergoing significant change over the past decade. Consecutive reports have proposed and implemented improved governance arrangements and clearer differentiation for both the further education and higher education sectors (under SOLAS and the HEA respectively) and their institutions, at the same time as promoting closer alignment and engagement between these different parts of the system-as-a-whole. Much more attention has been placed on the student, the quality of the learning experience, and on student outcomes. Greater engagement between education and external societal stakeholders, as well as collaboration, locally, regionally, nationally and internationally have been seen as critical to ensuring Ireland's continuing competitiveness. Most recently, policy has focused on the necessity to encourage better regionally-balanced social and economic development across the country, emphasizing regional capacity and capability, for greater sustainability.

Taken together, government policy proffers a strong case for promoting regional social and economic growth with education at its heart. Key policy documents and actions are as follows, in alphabetical order.

- **Action Plan for Education 2017** (2017)[64] provides an overarching strategic vision proclaiming the ambition to create the best education and training system in Europe over the next decade. It reflects a significant strategic reform programme under way.
- **Action Plan for Jobs 2017** (2017)[65] provides a strategic vision and plan for "building a strong economy that delivers sustainable full employment…in light of increasing global uncertainty, particularly in the global trading environment." It emphasizes structural reforms to improve productivity across the economy, including increasing efficiencies, and reducing unnecessary administrative burdens, as well as developing, nurturing and attracting world class talent and driving investment in innovation in key sectors.

  The *Action Plan for Jobs for the South-East* emphasizes the importance of developing smart specialisms as new sources of growth, based on exploiting the research and enterprise base of the region, including: advanced manufacturing, big data and the internet of things, design, digital media, med-tech, and Fintech. [66]
- **National Strategy for Higher Education to 2030** (2011)[67] sets out the long-term vision for higher education. A key objective is the creation of a coherent system of higher education

institutions (HEIs), coordinated by the HEA, to deliver a complementary and differentiated range of institutions and academic programmes needed by individuals, society and the labour market. It promotes high levels of inter-institutional collaboration so that specialisation at institutional level can enhance opportunities and choices for students at regional and national levels. Supplemental policy documents include: *Towards a Future Higher Education Landscape* and the *Guidelines on Regional Clusters*.[68]

- **Regional Skills Fora**[69] provide a more systematic way for employers and the education and training system to work together to build the supply of skills to support job creation and the growth and development of each region. The Fora have been developed in the context of the *Skills Strategy and Enterprise Policy to 2025* and publication of *Regional Action Plans for Jobs*.

- **SOLAS**[70] was established in 2013 under the Further Education and Training Act. It is responsible for funding, planning and coordination of further education and training programmes provided by 16 Education and Training Boards across the country, including apprenticeship. The sixteen ETBs were formed from the aggregation of 33 VECs (abolished on July 1st) and the integration of the 16 former FÁS Training Centres.

- **Strategy for Smart Specialisation Strategy for Ireland**[71] was developed as part of the National Research Prioritisation Exercise (NRPE). This is a national strategy with no separate smart specialisation strategies for each of the 2 regions (BMW and South & East). The NRPE process takes into account the regional dimension.

- ***Supporting Entrepreneurship and Innovation in Higher Education in Ireland***[72] is the joint OECD/EU HEInnovate report which makes several recommendations. This includes: expansion of entrepreneurial teaching and learning, access to entrepreneurial education across faculties and disciplines, and building more institutional capacity to understand, document and measure societal and economic impact of activities and initiatives.

- ***Technological Universities***[73] were recommended by the *National Strategy for Higher Education* as a new type of university in Ireland. Internationally, a technological university (TU) (often called university of applied science) is a higher education institution operating at the highest academic level and specifically focused on career- and labour-market-oriented education, research and innovation. TUs will be formed by the amalgamation of existing institutes of technology. In the SE, it is anticipated that Carlow and Waterford Institutes of Technology will come together to form a multi-campus Technological University of the South-East (TUSE). Legislation has now completed its progress through the Oireachtas.

Two additional policy interventions are particularly relevant.

- ***Prospects for Irish Regions and Counties; Scenarios and Implications*** (2017)[74] is a recent ESRI report, which forms an important component of the Irish policy background, especially in the context of considering Kilkenny as a location for tertiary or higher education and training. The report noted that while there are benefits for economic development from scale, an excessive concentration in one urban centre has been found to negatively affect national growth. In an Irish context, economic activity may already be too concentrated in Dublin, with projections suggesting that the dominance of Dublin is set to increase further. To counter this, a strategy of de-concentration could be achieved through the development of counter-poles to Dublin, although given the size of Ireland and

the fact that the economic benefits of scale only arise for urban areas of significant size, the optimal number of counter-poles would be small.

The research and its conclusions have important implications for the South-East. While there may be no single urban centre of sufficient scale to be a counter-pole, there are four mid-size centres (Waterford, Carlow, Kilkenny and Wexford) which if working in a more co-ordinated way and with appropriate infrastructure (including education and training) could, combined, achieve the same effect.

- **Project Ireland 2040. National Planning Framework** (2018)[75] provides a blueprint for the development of national infrastructure over the next 25 years. The plan proposes to cater for an additional one million people by growing regions, cities, towns and villages and the rural fabric, building more accessible urban centres of scale and securing better outcomes for communities and the environment, through more effective and coordinated planning, investment and delivery.

  Of special relevance to this report is the recognition of education as the "main driver of technological innovation and productivity", and its critical role with respect to increasing access to "good jobs and economic prosperity", reducing the "risk of social exclusion and poverty" and enhancing "full participation in civic and political affairs".[76]

- *Further Education and Training (FET)* is acknowledged as playing a vital role in meeting the needs of learners, especially for awards at Level 1-6 on the National Framework of Qualifications, for entry to employment and career progression and/or higher education.
- *Technological Universities* are endorsed as having "the potential to deliver greater opportunity to students in the regions served, to staff working in the institutions, and to the broader local economy and society. By creating institutions of scale and strength, multi-campus technological universities will bring greater social and economic benefits to their regions through a strengthened role in research and innovation and the delivery of a broad range of high quality education and training in each of their campuses."[77]

National Policy Objective 31 states: "Prioritise the alignment of targeted and planned population and employment growth with investment in, inter alia:

- The expansion and consolidation of third level facilities, particularly where this will contribute to regional development, and
- Programmes for life-long learning, especially in areas of higher education and further education and training where skills gaps are identified."

The NPF acknowledges that the big challenge for Ireland is the absence of significant towns/cities of scale as a counter-pole to Dublin. Thus, it emphasizes the need to ensure "a balanced approach in activating and realising much underutilised potential in wider rural towns and dispersed communities will also be a priority."[78] Failure to address the regional dimension will ultimately have "negative consequences".[79]

These different objectives translate into National Strategic Outcome 10 – which emphasises that: "Investment in higher and further education and training will be a key driver of Ireland's competitiveness. The development of programmes for life-long learning, especially in areas of education and training where skills gaps are identified by employers and the further and higher education and training system, working together through Regional Skills fora, in responding to the skills needs of their regions."[80]

7.3 International Practice

7.3.1 Models of Regional Tertiary Education Provision

The social and economic challenges that Kilkenny and the South-East face are not new and are not unique to this region. Around the world, the socio-economic and strategic value of tertiary education, and specifically regional collaboration between education and local, regional and national authorities, has been a growing theme. The examples set out in Appendix 1 come from Europe, Australia and the USA. Each example reflects responses to particular regional challenges and as such are illustrative of different aspects of the trends discussed above. They range from relatively small-scale education-focused initiatives to larger-scale regional development strategies. What marks these initiatives out for attention are the following characteristics: shared vision, alignment with regional needs and skills, linkages between schools/tertiary institutions and research institutes, collaboration between public and private sectors, and governance arrangements. Table 9 below provides a summary of the main factors for success and challenges.

Table 9 Success Factors and Challenges

ENABLERS FOR SUCCESS	CHALLENGES
• Healthy education system with high levels of tertiary education attainment; • Productive collaboration between public/private sector, education/research, and civil society; • Identification of niche areas of specialisation & competitive strengths; • Shared vision; • Inclusive governance arrangements.	• Establishing appropriate multi-level governance arrangements between differing groups; • Clearly defining the key sets of actors to be involved; • Creating a shared vision and clear agenda; • Having good information to understand & forecast social/regional factors; • Undertaking priority-setting to enable good decision-making.

7.3.2 International Models of Multi-Campus Universities

Multi-campus or multi-site universities are an increasing feature of contemporary higher education around the world.[81] There are three broad categories of campus organisation: (a) the single-campus university; (b) the university with a main campus and one or more small satellite campuses; and (c) the multi-campus university comprising multiple geographically dispersed campuses. Multi-campus institutions have a common mission and governance framework within a single system albeit there are also federated models; how education programming, student, research and back-office systems are organised depends upon the particular configuration of the university. In contrast, the multi-campus systems, which are common in the US, comprise a range of different universities each with no direct relationship with each other, other than membership in the system.[82]

Australia has ten multi-campus universities.[83] The institutions share certain characteristics, such as: a) unique mission as community-focused institutions serving students from a wide diversity of social, cultural and location backgrounds that include a high proportion of "first generation" students and those from rural and isolated areas, and b) distinctive in their educational profile covering such fields as Education and Health to a larger extent, and Natural and Physical Sciences to a smaller extent than other universities which contributes to their relatively lower cost per student. They maintain equivalent quality standards as single campus institutions.[84] Below are two examples:

- *University of Western Sydney (UWS)*[85] is typical of the multi-campus universities in Australia. It was established in 1989 as a federated network university, based on two existing Colleges of Advanced Education: Hawkesbury Agricultural College and Nepean College of Advanced Education. Beginning 2001, UWS has operated as a single multi-campus university, with six campuses in a region with almost 150,000 businesses and 2m-plus people. As the largest educational provider in Western Sydney, UWS is a key driver of the region's social and economic development. It is ranked 79 in the Times Higher Education World Rankings of Young Universities.
- *University of Central Queensland (UCQ)*[86] is a dual-sector institution, granted university-status in 1992. With 25 campuses and locations and more than 30,000 students, CQU is one of the largest universities based in regional Australia; it also delivers programs in University Centres. In 2014, the University merged with the local further education college. It provides short courses and certificates, through to undergraduate, postgraduate and research degrees. Study areas include Apprenticeships, Trades and Training, Business, Accounting and Law, Creative, Performing and Visual Arts, Education and Humanities, Engineering and Built Environment, Health, Information Technology and Digital Media, Psychology, Social Work and Community Services, Science and Environment, and Work and Study Preparation. It is ranked 90 in the Times Higher Education World Rankings of Young Universities.

Wales has two multi-campus universities.

- The *University of South Wales (USW)*[87] was established in 2013 as a merger of University of Glamorgan (UoG) and University of Wales, Newport (UWN). Originally, there were four campuses spread around South Wales: Pontypridd, Cardiff, Caerleon and Newport. In 2014, the Caerleon campus was closed, and courses transferred to other campuses. It was decided to expand activities elsewhere to meet the needs of the business community for graduates in the creative industry, and to improve student progression into higher education. Given the closeness of Carleon to Newport, the choice was to concentrate facilities in fewer campuses, and to highlight a particular specialism in "new economy" areas.
- *University of Wales, Trinity Saint David (UWTSD)*[88] was established in 2012 as the result of a merger of four higher education institutions. It was decided to create a new Swansea campus to provide students with modern education and research facilities, and develop the skills required by local employees and communities. It used the opportunity of the new campus development to improve local community engagement, and in 2015 organised a public consultation on the new campus plans. The result was a master plan and a new campus proposal for the Waterfront Innovation Quarter in Swansea, with its stated aim to revitalise and reconnect the waterfront to the city.[89]

7.3.3 Some Lessons from International Policy Approaches and Models of Provision

The following themes emerge from international practice and models, which are particularly relevant to the Kilkenny proposition.

- There is strong evidence from international experience that regional social and economic disadvantage can be addressed by focussed policy initiatives;
- Education and training provision is central to the success of such initiatives, through the development, retention and attraction of human capital and creating a vibrant, dynamic and attractive society;

- A strong connection between the education and training system and the enterprise/business needs of a region is an important success factor, as is identifying niche areas where the region already has advantages, or can develop such advantages;
- Collaboration with enterprise/business should extend to programme/curriculum development and delivery;
- Provision of a range of post-secondary education is necessary, with strong collaboration and co-ordination, and even joint location, across forms and levels. In a Kilkenny context this would mean close collaboration across further education, apprenticeships and higher education;
- The involvement of an established higher education institution is an important contributor to success. However, this involvement needs to be strategic and focussed, reflecting a strong commitment from the institution;
- Multi-campus higher education institutions are a well-established, and successful, feature of many higher education systems internationally;
- Clear and effective governance arrangements are essential.

7.4 Irish Models of Multi-Campus Higher Education Institutions

Ireland also has multi-campus higher education institutions, most notably Maynooth University (with campuses in Maynooth and Kilkenny), Galway Mayo Institute of Technology (with campuses in Galway and Castlebar, Letterkenny Institute of Technology (with campuses in Letterkenny and Killybegs) and the Institute of Technology, Carlow (with campuses in Carlow and Wexford). The University of Ulster is also a multi campus – with campuses in Derry, Jordanstown and Magee, with another in preparation in Belfast, while the Dublin Institute of Technology also has several campuses/buildings albeit all within Dublin.

Their experience holds useful lessons for such a development in Kilkenny. In the first instance, the Institute of Technology, Carlow (ITC) has demonstrated, with its Wexford campus, how such a campus can be successfully created. A key success factor for ITC was a strong commitment at board and senior management level to the expansion of the Institute to Wexford. This was reflected in the assignment of a senior member of the management team to oversee the Carlow campus development and on-going operation, ensuring close academic and administrative governance and oversight.

Two other campuses hold more cautionary lessons for the development of a higher education campus in Kilkenny – the Castlebar campus of Galway Mayo Institute of Technology and the Killybegs Campus of Letterkenny Institute of Technology. In both cases significant difficulties have emerged, leading to financial strains on the "parent" institute, low demand for the courses provided and concerns about sustainability.

The case of the Castlebar campus is particularly relevant in the present context, not least because a review of the campus was commissioned by the Minister for Education and Skills and a report, titled *Developing a sustainable plan for the Mayo campus of the Galway Mayo Institute of Technology – Report of the Working Group*, was published as recently as October 2017.[90] The following high-level conclusions from this report are especially relevant in a Kilkenny context-

- The goodwill and commitment from community, political and industry representatives in the region and the proactive engagement of the County Council is important;

- Developing links with schools and further education colleges and the development of a whole-of-education approach is vital;
- Facilitating industry input is essential. As well as major employers, it is important that formal engagement mechanisms are put in place with representative bodies that can reflect the needs of small and micro enterprises;
- There is an opportunity for the campus to serve as a catalyst for rural enterprise and rural development;
- The development of a campus should be integrated with the range of relevant local and regional strategies, such as the *Regional Action Plan for Jobs* and *Realising our Rural Potential*, the national strategy for rural development;
- Development should also work in a synchronised way with a range of structures and mechanisms in place to facilitate implementation of these strategies, including the regional skills fora and the implementation group of the regional action plan for jobs.

Likewise, the following recommendations from the Castlebar report are applicable, to a greater or lesser extent, to any proposed higher education campus for Kilkenny.

- A dedicated permanent head of campus at vice-president level should be appointed;
- A sub-committee of the parent governing body should be established to oversee the development of the campus, involving external regional stakeholders;
- Programme development should be aligned with the parent institution strategies, the regional skills audit and market research, including engagement with regional employers and representative groups;
- The potential for development of new apprenticeship proposals should be investigated;
- A mapping exercise should be undertaken with further education to build and communicate new progression pathways;
- New tailored programmes, based on unique well-articulated value propositions should be developed to meet current and emerging skills needs of major local employers;
- The county council should develop a joint marketing initiative with the parent institution to ensure that the campus is promoted via wider county marketing resources;
- The campus should develop a value proposition to take to industry, offering a range of potential collaboration opportunities and associated benefits.

The creation of a higher education campus in Kilkenny should also have regard to the fact that Maynooth University, which provided such a service since 1997, has decided to end that arrangement. While it is not the function of this exercise to review the operation of the campus of Maynooth University in Kilkenny, feedback from stakeholders indicate that the mix of disciplines combined with the requirement on students to transfer to Maynooth after completion of first year contributed to the provision not being viable. It is also noteworthy that the level of oversight and engagement described above in respect of the Wexford campus of IT Carlow did not exist.

8 The Case for a Tertiary/ Higher Education and Training Provision in Kilkenny

Conclusions and Recommendations

- Having considered the national policy landscape and international experience, and consulted with stakeholders, it is our view that there is a convincing educational, social and economic case for locating tertiary/higher education and training provision in Kilkenny.
- The proposal aligns with government policy across education – including meeting growing demand and drawing on policy objectives for technological universities.
- The proposal aligns well with regional policy, especially as regards providing counter-weights to Dublin, based on making the South-East region more attractive than it currently is. Leveraging the advantages of smart specialisation, which is based on maximising regional expertise for national and global competitiveness, would be essential.
- Any provision should be capable of attracting a significant number of students from within the region as well as from across Ireland. Kilkenny County Council has set a base target of 1000 students. A student cohort of this size, with its attendant academic and support staff, will bring activity and vibrancy to the city, and potentially the Abbey Quarter, as well as knock on economic and social activity. It would also be of sufficient size to create a positive higher education institution experience for students, something that is important in attracting students to study in a particular place.
- Demand for the provision should be strong enough from potential students to ensure that it is met within a reasonable timescale and is sustained over the long term.
- Consideration should also be given to broadening the appeal of the future provision to international students, which would help ensure that there is a year-round student activity in the city/region.
- We consider it unlikely that a catch all provision (by which we mean a broad range of programmes in diverse disciplines) will achieve the objectives. Instead, our view is that provision should be targeted at a small (five is suggested) number of fields of academic study, where scale and a cluster effect can be achieved.[91] This approach is more likely to create the appropriate level of specialisation, critical mass and excellence required to be attractive to potential students and enterprise and be sustainable.
- Rather than focus exclusively on a higher education provision, Kilkenny County Council should be open to a broader based post-second level provision, incorporating further and higher education, apprenticeships and research. Apart from the fact that this would broaden the pool of potential students it would also create a more diverse and rich academic community with enhanced capacity to meet local and national education

and training needs, including for adults. It would also reflect the growing importance in national policy of further education and apprenticeships in meeting national skills objectives.

- Different education and training activities on the site are not mutually exclusive and, having regard to the point just made, may in fact be mutually supportive and beneficial.
- In deciding on the form and level of provision, regard should be had to developing an education and training offering of broad appeal nationally, and indeed internationally. Kilkenny city is a very attractive place, as is its rural hinterland, and the city in particular is a strong "brand" in Ireland, especially among young people. This should be deployed in support of the new provision so that a combination of the right programmes in an attractive location supports growth and sustainability.

9 Recommended Options

Based on the assessment above, this report recommends that Kilkenny County Council considers the following options. It should be noted that the options are not mutually exclusive.

9.1 Co-Located Higher and Further Education Provision

A significant weakness in Ireland's post-secondary education system is the poor alignment and linkages between higher education, apprenticeships and further education. This has led to a number of sub-optimal outcomes for our education and training system and those who participate in it. In particular, it has created excessive rigidity in the system, limiting the range of choices available to young people leaving school and to older adults who want to re-engage with formal education and training. While some good models of alignment of programmes and transfer from one sector to the other do exist, they are not systemic and depend to an excessive degree on local arrangements, and sometimes even on personal professional relationships. On the other hand, national policy is focussed on full alignment of the sectors. The creation of SOLAS within the Department of Education and Skills supports this and indeed recent management changes in the Department of Education and Skills reflect it with the combination of responsibility at Deputy Secretary level for both higher and further education.

The development of higher and further education provision in Kilkenny offers an opportunity to collaborate in, for Ireland, a unique project to align the sectors, giving students the option of exiting the education and training system with a qualification at any one of the levels 5 to 10 and also resuming formal studies at a later time.

The precise form of such provision would be a matter for the institutes of technology and the three ETBs in the region (Tipperary, Carlow/Kilkenny and Waterford/Wexford). However, in discussions, the potential was clear for provision based on the reputation of Kilkenny in craft and design. In addition to craft and design activity in the city itself, the Design and Craft Council of Ireland is located in Kilkenny and there is further education craft provision in the ETB's premises in Thomastown.

This proposal would align well with the proposition for a National Design Innovation Hub (NDIH) which is currently being developed by Institute of Technology Carlow – the aim of which is to position the South-East region as a destination for design, through the development of a dedicated centre of excellence for design-led thinking, design innovation and education and training. Partners include Design and Crafts Council of Ireland (DCCoI), Kilkenny Industrial Development Company (KIDCO), and Kilkenny County Council (KCC) and industry experts in design, innovation and finance. NDIH would be the first dedicated centre to stimulate, connect and advance the adoption of design and critical problem solving in Ireland, and could take a lead in devising market solutions, addressing identified skills gaps and invigorating innovation, commerce, collaboration and entrepreneurship through design. It will focus on the creation of high economic value jobs through business development, research, collaborative activities and talent generation and will offer a pivotal resource for design communities across Ireland and Internationally.

The NDIH is considered a strong asset with a transformational value proposition that will cater towards and attract a cluster of innovative companies, tertiary education and creative industries to the overall development.

With a continuum from further to higher education, close engagement with the Craft Council of Ireland and, potentially co-location in the Abbey Quarter, the proposed National Design Innovation Hub (NDIH) would be uniquely attractive as a national hub for craft and design, well aligned with national and EU policy objectives (e.g. smart specialisation). Such a provision would also create opportunities for close collaboration with programmes already provided, such as architecture in WIT. Thus, there is an opportunity for the campus to develop its own unique identity nationally and internationally, within a TUSE.

The co-location of further and higher education provision in Kilkenny would require the development of formal agreement between the institutes involved in TUSE and the education and training boards covering governance, management systems and academic oversight for the combined campus.

9.2 Higher Education

Any proposal for a higher education provision in Kilkenny should have regard to national policy developments, past experience in Kilkenny and elsewhere, and practice in other jurisdictions as outlined earlier in this report.

The policy context is one of rising demand for higher education driven by the push of demography and the pull of the skills demand of the economy. Demand for full-time higher education is projected to grow nationally over the period 2015-2029 by approximately 30%, with the South-East experiencing a growth in demand of approximately 5000 students over 2014 enrolment levels, based on pro-rata calculations.[92] Some caution around these figures is advisable as Ireland already has a very high participation rate among school leavers. However, the figures are based on demand from current cohorts and do not factor in meaningful achievement of the national policy objective of growing the proportion and number of students from socially deprived backgrounds and other equity of access groups. Additionally, there will be an on-going demand for people to continue to up-skill and re-skill throughout their life as the labour market changes and people live healthily and actively for longer. The level of demographic growth, combined with a demand for higher level skills, are among the greatest strengths of Ireland as a society and economy.

From an institutional perspective, the most impactful policy development is the proposed creation of technological universities from among the institutes of technology. As envisaged, each of these technological universities will be multi-campus institutions. This development offers opportunity and potential to develop a campus in Kilkenny, which in due course would become a campus of the proposed Technological University of the South-East (TUSE).

Stakeholders in Kilkenny have to-date remained out of active engagement with the creation of TUSE, judging it appropriate that the matter be left in the hands of the institutes of technology in Carlow and Waterford, their governing bodies and leadership. However, Kilkenny has a direct and immediate interest in the TUSE, even if there was no proposal to develop a campus in the city. Their interest is all the greater given the prospect of such a campus.

The report, *Engagement and Consultation Process on a Technological University for the South-East,*[93] by Mr. Michael Kelly to the Minister for Education and Skills in July 2015, on the development of a

technological university of the South-East, is instructive. In preparing his report, Mr. Kelly engaged in a comprehensive stakeholder consultation exercise in the region. The following summary of some of his main conclusions are relevant in the present context and reflect much of the analysis in this report.

- Stakeholders across the South-East region, including commercial and business interests as well as community and family respondents believe that a university level institution in the region is an absolute imperative, in planning the transition from "must do better" to superior performance by the South-East Region.
- While stakeholders expressed a high level of respect for both existing Institutes, they articulated the need for a step change in regional capability of a scale and standard that could exert a real and lasting impact on economic and social indicators for the South-East. They believe that the necessary scale, capability and regional reach could only be achieved through the development of an entirely new Institution, drawing on the strengths of both existing Institutes but also adding further capacity across the region.
- The case for TUSE revolves around the anticipated impact on quality of life for the region's population, following from greater volume of quality employment, greater access to life's opportunities through participation in higher levels of education leading to better jobs, retention of young people and human talent in the region and, overall a big boost to regional capability and self-confidence, with positive impact on economic and social development across the board.
- A particularly compelling case was argued by those involved in promoting Enterprise Development in the region, including both business representatives, enterprise development agencies and local authorities. They point to: weak performance by the region on many economic and social indicators relative to other parts of the country creating a picture of unrealized potential; the evidence that the presence of a high-profile university in a regional location is one of a number of criteria now considered important in attracting new investment; the need for high visibility and ready supply of quality graduates in relevant disciplines and strong research and innovation capability in the region to support higher value employment.
- Guidance Counsellors, parents and students painted a very convincing picture of the need for regional access to university level programmes. They pointed to the costs to families of supporting their student daughters and sons to attend universities outside the region. Students on the Wexford Campus of IT Carlow spoke in particular of the cause and effect relationship between the convenience of access to the campus and their participation in higher education.

Overall Mr. Kelly's conclusion***:*** "There is good reason to believe that the development of a technological university in the South-East has the potential to exert a lasting impact on economic and social development in the region. "

That impact would be enhanced, in our view, by the inclusion of a campus of the TUSE in Kilkenny.

This raises the issue of how such a campus could be initiated and developed. Fortunately, there is already a model available in the region. Given its proven ability and success in Wexford, it is our view that IT Carlow is in a good position to develop a campus in Kilkenny. We reiterate our earlier advice that in deciding on the provision to be made on a Kilkenny campus, regard should be had to niche areas that reflect Kilkenny's current and historic economic activities and strengths. This would imply disciplines relating to design/crafts, animation, heritage, tourism and the agri-food industry, notably dairying. Each of these is also capable of meeting another recommendation – that provision on a Kilkenny campus should aim to be a centre of excellence with national and international reach.

Given the clear demand regionally, and the imperative socially and economically, to develop a technological university from the merger of the two institutes, it is essential that if IT Carlow is to develop a campus in Kilkenny it engages closely with Waterford IT and that the development should be a joint exercise, done in the context of the strengths of each and the objective of the creation of the technological university. The Inclusion of Kilkenny in a TU would broaden its appeal and its impact in/on the region and broaden and deepen the contribution of a TU to the development of a highly skilled labour force in the region through improved access, attraction of students from outside the region and retention of graduates within the region.

The provision/availability of custom built infrastructure in the Abbey Quarter would offer a substantial asset to the TUSE and allow for reorganisation and relocation of disciplines within the four-campus university. The facilities could be leased thus avoiding the necessity for capital expenditure by the education provider.

9.3 Research

Waterford Institute of Technology already has a strong presence in Kilkenny through its research centre the Telecommunications Software and Systems Group (TSSG) – an internationally recognised centre of excellence for ICT research and innovation focussing on telecoms networks, security and mobile services. WIT is working with the European Commission and the major agriculture research centres in Europe to develop, European wide, a set of Agriculture Digital Innovation Hubs. The Irish Hub would be in Kilkenny and WIT has formulated a proposal to the EU Commission for the development of a Smart Agriculture Centre of Excellence there.

In its submission, WIT states that the world's leading agricultural producers are investing heavily in smart-agri systems and advanced ICT is being developed and implemented at every stage of the food chain, from the primary producer on-farm, through to the processor and retailer. This concept has given rise to the term Precision Agriculture. It is Precision Agriculture that can drive future economic growth in the sector, creating two complementary industries: sustainable food production and ICT-agri technology. Becoming a leading exporter of such expertise holds huge economic potential for Europe.

To advance Europe's position in this space, WIT propose developing a Centre of Excellence for Precision Agriculture - PACE. The Centre's chief objective would be to develop and validate ICT solutions that are portable across the European agriculture sector. The South-East of Ireland is an ideal location for this Centre as it already hosts a number of relevant stakeholders, including Teagasc, the Irish Government's agriculture research agency, the TSSG, one of Europe's leading ICT research centres, global food group, Glanbia, Feed Systems experts, Keenans, and the Irish Environmental Protection Agency (EPA). The Centre will build on the partnership already in place between Teagasc, Glanbia, TSSG, and ICT industry leaders Intel. These partners are currently engaged in developing solutions for the dairy industry, through the Precision Dairy research project, funded by Science Foundation Ireland (SFI). TSSG is also working with other agriculture partners on solutions for processors, which will increase their ability to predict and manage supply-chain fluctuations, and plant disease management via the Internet-of-Nano-things. The proposed Centre will see scientists and engineers from ICT (including Intel, IBM and Analogue Devices) and agriculture industries from Ireland and across Europe working together to develop state-of-the-art software platforms, protocols and databases for the agriculture industry. The solutions will be made available for exploitation by third parties. In particular, the Centre will work closely with entrepreneurs and new start-up companies to customise solutions and drive Europe's economic growth in Precision Agriculture.

While this proposal does not meet the objectives of the County Council in terms of creating a higher education centre of scale in terms of student numbers, it does offer an exciting prospect for placing Kilkenny at the heart of agricultural innovation in Europe and further strengthens the case for an undergraduate provision in the city. The proposal, and the fact that the TSSG is already located in Kilkenny, points to disciplines in agri-food as a potential anchor to a higher education provision in the city, addressing the requirements of being specialised but with considerable national and international appeal. The potential for synergies between the undergraduate programmes and leading research offer real potential for an innovative approach in these disciplines. There would also be potential for the inclusion of further education programmes in this education and research eco-system.

9.4 Private Providers

The private higher education sector in Ireland is relatively under-developed and Ireland lacks a clear policy for the development of this part of the higher education sector. The only policy statement is a brief one in the *National Strategy for Higher Education to 2003* which states in respect of private providers, including for-profit providers:

> It is likely that, over the period of this strategy, this sector will grow, particularly with the possible entry of large international higher education providers into the Irish market. This growth has the potential to add significantly to the overall capacity of the system to meet growing demand for higher education. This sector also offers an opportunity to periodically reassess the value for money and effectiveness of public providers; where private providers can offer better value for money, the State should consider using them to deliver on its objectives. It would be necessary, however, to safeguard against any negative impact on quality. While there are legal restrictions on the use of the 'university' title by education providers in Ireland, the regulatory framework governing entry to the Irish market by higher education providers will need development in order to ensure that overall quality is maintained.[94]

The Government has in fact since 2011, through the labour market activation programme Springboard and the current Springboard+, acted on the suggestion that the State should use private providers where it is cost effective to do so to deliver on its objectives. Approximately 40% of Springboard places have been provided by the private sector with outcomes as good as the public sector.

Ireland with its growing population, the growing demand for access to higher education and the difficulties experienced by government in funding this increased provision offers a good market opportunity for the expansion of private higher education, with the entry into the system of international providers and the expansion in provision by existing Irish and international providers. Brexit may also add to this potential, as may the more hostile environment in the US to immigration.

In the circumstances, Kilkenny County Council would be well advised to be open to entering into an agreement with a private provider or providers in respect of provision in Kilkenny. Any such agreement need not be exclusive and could operate alongside a publicly funded provision.

10 Next Steps

This report points to three approaches to providing a tertiary education provision in Kilkenny – combined further and higher education, higher education, and private providers. We have also pointed to the exciting potential for research and its synergies with teaching and learning. While these options are presented separately, they could work variously in tandem and in partnership. If the County Council proposes to explore the potential further, two approaches are put forward for consideration.

The Council could decide which approach to a tertiary education and training provision it favours and enter into discussions with preferred providers, with a view to reaching an agreement with them. This has the advantage of being straight-forward and likely to lead to an earlier development. On the other hand, such an approach may unnecessarily limit a broader range of possible options open to the Council.

To assess the range of options and the level of interest that exists among education providers, the Council could keep an open mind on what would work best for the city and region and issue a general request for expressions of interest. This latter approach has the advantage of creating a competitive context into which a wider range of providers are likely to enter, broadening the potential choices for the Council, and ultimately the prospect of successful, high quality and sustainable education and training provision in the city. The process for expressions of interest would need to be clearly spelled out, including the process for evaluating expressions.

It is understood that the Steering Group for the establishment of the Technological University of the South East, comprising representatives of the Governing Bodies and senior staff of both ITC and WIT, is due to report with its strategy for TUSE by September, 2018. In this regard, Kilkenny County Council might await the outcome of this process, and study any implications the report might have for Kilkenny before considering what course of action to follow.

Whichever course is followed, the Council would be well advised to set up a small group of key stakeholders in the city and region, to include local government, national development agencies, enterprise and civil society. The work of the group should be time limited and they should be tasked with reviewing the social and economic needs of the region and advising the Council in respect of the kind of tertiary education and training provision that would best support development.

It would also be important that, in advance of any bilateral discussions or the issue of a request for expressions of interest, the Council should clarify what supports and infrastructure can be provided to support the development of an education and training provision in the city.

Appendix 1

International Examples of Regional Tertiary Education Provision

- **VICTORIA, AUSTRALIA:** Established in 2004, the Gippsland Education Precinct was formed as an integrated, post-compulsory education environment catering for a wide range of educational needs. Educational programmes were developed in close consultation with local industry, with a focus on lifelong learning and enhanced economic and social development. It was originally formed as a partnership between the major providers of education, including secondary, vocational/apprenticeship and Monash University (one of Australia's leading universities), training and employers. Monash has since pulled out of its Gippsland campus, and passed it on the Federation University.

  A review of the Gippsland Precinct was conducted in 2011 and proposed changes in the educational profile to better meet changes in the student, employment and population profiles for the region, along with future economic development and industry change in the region. It also urged greater attention to tertiary education and industry collaboration, educational aspirations, adult learners and programs at Years 11 and 12 and proposed improved governance arrangements. It was recommended that the Gippsland Tertiary Education Council should establish a five-year strategic plan, bring together differing institutions and sectors into more effective organisation, and better connect education and training to the priority needs of industries and business. In particular, the report urged better alignment with sectors of interest and importance to the region's future.

- **FINLAND:** Multi-campus university consortia were established in 2004 in regions which do not have their own university. There are six consortia, of different configurations, bringing together universities, universities of applied sciences (equivalent to institutes of technologies), municipalities and regional councils. Their key characteristics are: networked organisations that link regional activities of universities, support companies and communities in research and development, carry out advanced academic research (by drawing on their region's strengths and applying the results in practice), and educational programmes that especially target adults. Each consortium has a different focus and strengths, dependent on the region.

  An evaluation of the consortia in 2007 concluded that the university consortia had "successfully fulfilled their regional policy mission". The report praised the mixture of adult education and Masters programmes, as generating "substantial added value in terms of regional development," and said the team did "not regard Bachelor level education as a primary or even natural task for the consortia, as they often cannot offer sufficient alternatives to the students in the availability of study paths and minor subjects." Finally, it urged the consortia to "strengthen regional cooperation and...to enter into concrete cooperation with the goal of arranging joint curriculum, joint research projects as well as joint use of equipment, facilities and libraries." Weaknesses identified included limited research capacity and capability. Thus, the consortia were urged to develop "a comprehensive research strategy to focus their research into selected key research areas.

- **NAVARRE, SPAIN** is an example of a Smart Specialisation project supported by the European Union and the Spanish Ministry of Education Campus of Excellence programme. Launched in 2009, the programme aims to promote the diversification and specialisation of Spanish universities, focusing on their areas of excellence, through the development of knowledge ecosystems around the specialisation areas to contribute to regional economic development.

A review in 2016 identified education and training as one of the competitive factors, with the main objective to support innovative education oriented towards values and professional skills for the future. Having both higher and vocational education is considered to be a strength. Specifically, the aim is to boost quality higher education and vocational education and training, that better responds to the needs of companies and is focused on strategic sectors, enhancing the skills and competencies for employability and life-long learning. The main actions include: Innovation projects; Vocational education and training strategy; Specialisation of universities; and Actions for professional development.

The region of Navarre has given strategic importance to forming strong linkages between vocational education and training (VET) with higher education and research. Its approach follows that of the Basque County, which has promoted VET through Tknika. Tknika is modelled after some of the world's most advanced vocational training centres and involves developing innovative projects in the areas of technology, education and management (www.tknika.eus). The review also highlighted on-going "barriers". These included underlying conflict between the higher education institutions and the technological centres. There is also a degree of misunderstanding and some mistrust between the two sectors: education and enterprise. Specifically, there is a clash of cultures: companies are concerned about meeting urgent deadlines while universities feel enterprise lacks understanding about the educational process.

- **TAMPA, FLORIDA (USA).** The Tampa Bay Partnership was formed in 1990 as a regional platform for economic development. It has primarily been a private-sector organisation focused on economic development. Formally incorporated in 1994, it was re-established in 2016 with a new mission and leadership structure, with greater emphasis on whole-of-society collaboration and cooperation between public and private sectors.

  Throughout 2017, the Tampa Bay Partnership was involved in an extensive research effort to create a set of economic indicators to help track where it stands and identify policy options. The initiative brought together people from 90 top organizations. Building a talent pipeline from early childhood through advanced degrees was identified as critical. The argument was put forward as follows: "if the region wants higher-wage, higher-skilled jobs, it will need a strategy to develop, retain and attract the educated workforce that these jobs demand — whether it's certificates or traditional academic credentials such as associate, bachelor, and advanced degrees." An early study had emphasized the importance of aligning occupations to enterprise clusters and to learning pathways. In this way, pathways could help identify types of preparation needed to enter specific career fields, i.e., what *competences* are needed to be employed in closely-related industries, to a wide range of post-secondary educational institutions, including colleges and universities, community colleges, vocational technical institutes, private institutions, and other specialised training programmes. The focus on core competences rather than individual programmes or qualifications was seen as providing greater ability and flexibility for individuals and the region as the economy changed over time.

Appendix 2

Terms of Reference and Methodology

Terms of Reference

- Review future social-economic, cultural, and demographic demand in Ireland, and specifically the Kilkenny City/County Region, with specific reference to future higher education demand,
- Set out a case for the location and provision of higher education programmes, within the Kilkenny city/county region,
- Explore options for such provision,
- Produce a report.

Methodology

- Review relevant economic, planning and demographic assessments and forecasting for the Kilkenny region;
- Explore relevant international models/benchmarks;
- Conduct interviews key stakeholders from business, enterprise, education and wider Kilkenny community, and nationally. This included senior leaders from Maynooth University, Carlow Institute of Technology and Waterford Institute of Technology, the Carlow-Kilkenny ETB, the HEA, SOLAS and the IDA. A round-table was held with representatives from across the county.

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Notes

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