



**Proceedings of the 2nd HEA Forward-Look Forum:
From Regional Clusters to Knowledge Hubs: Unlocking the Potential**

26th November 2014

Gandon Suite North, Davenport Hotel, Merrion Street Lower, Dublin 2

Introduction

The HEA Forward-Look Forum, ‘From Regional Clusters to Knowledge Hubs: Unlocking the Potential’, was convened at the Davenport Hotel on 26th November 2014 to explore the potential of regional clusters to contribute to social, cultural and economic development. The Forum was the second in a new series of fora which the Higher Education Authority (HEA) is hosting bi-annually to provide opportunities for forward-looking and disruptive thinking about the future of the sector amongst key stakeholders and thereby to enhance the policy-making capacity and capability of the higher education community. Cognisant of the global context within which Irish higher education operates, and of Ireland’s potential to emerge as a strong player within the ‘knowledge society’ of the twenty-first century, the fora aim to support the cultivation of fresh, long-term perspectives on topical, cross-cutting themes through inclusive, participatory, and action-oriented discussion and debate.

Building on the discussions that took place at the inaugural Forward-Look Forum (30th May 2014), which focused on positioning higher education as a driver of social, cultural and economic development, and on demonstrating its value as a ‘public good’, the second Forum brought together representatives of Irish higher education, the public sector, enterprise and the ‘third sector’ to share knowledge and experience of fostering regional collaboration. It also provided an opportunity for the leadership of Irish higher education to advance its collective vision for regional clusters. Keynote addresses were given by Professor John Goddard, O.B.E (Emeritus Professor of Regional Development Studies, Newcastle University) and Professor Susan Christopherson (Department of City and Regional Planning, Cornell University), while insights into the Irish perspective on fostering regional collaboration were provided by Professor Rob Kitchin (National Institute for Regional and Spatial Analysis, Maynooth University), Joe Crockett (former Chief Executive, Kilkenny County Council), Professor Linda Hogan (Vice-Provost and Chief Academic Officer, Trinity College Dublin), Niall O’Donnellan (Division Manager, Investment Services, Enterprise Ireland), and Gina Quin (Chief Executive, Dublin Chamber of Commerce). In order to highlight the enormous potential of regional clusters to enhance higher education institutions’ responsiveness to the social, cultural and economic development needs of their regions, case-studies of clusters (2 Irish and 2 European) were presented by Dr. Maria Hinfelaar (President, Limerick Institute of Technology), Professor Philip Nolan (President, Maynooth University), Dr. Annemieke Galema (Director, Research and Valorisation, University of Groningen), and Oscar López Lorente (Executive Director, Campus Iberus).



Regional clusters are a defining feature of the emerging higher education landscape in Ireland and are crucial to the development of a coherent system of diverse higher education institutions with distinct missions, as envisaged in the *National Strategy for Higher Education to 2030*.¹ As well as serving as the vehicle for the delivery of the reform of the sector—especially in respect of the rationalisation of programme provision, the development of shared-services across institutions, the development of pathways for student-transfer within and between regional clusters, and the development of critical mass in areas of research expertise—the clusters will also support the development of a coordinated approach to regional engagement through partnership-working with enterprise, the community, and regional authorities, heightening the international attractiveness of each region. The two strands of the development of clusters on which the HEA has focused to date—the consolidation of programme provision and the development of pathways for student-transfer—serve as means to embed a regional focus into higher education policy and planning.

While the HEA acknowledges that the impetus to develop clusters runs counter to the instinct of institutions to act as autonomous entities in competition with one another, it is imperative that the potential for system-level coherence and enhancement that they offer is embraced—particularly within the context of declining core funding for the sector, limited public investment in research, and rising demand for higher education. It is envisaged that clusters will support the creation of ‘knowledge hubs’ through which research strengths of global significance will be fostered by higher education institutions in partnership with industry. It is also envisaged that they will enhance the skills-base of each region by enabling greater coordination between further and higher education. In the future, it will be the countries and regions whose higher education systems are well-connected to other players within the wider knowledge eco-system that will prosper.

Unlocking the potential of regional clusters as boundary-spanners between higher education and regional / local stakeholders

Professor John Goddard, O.B.E. (Emeritus Professor of Regional Development Studies, Newcastle University)

The role and purpose of higher education in contemporary society is currently a topical issue in the policy-discourse: universities are, on the one hand, autonomous entities and, on the other, entities which are expected to be responsive to the needs of wider society—in areas such as health, culture, business development, and regional development. The question of the relationship between higher education and society has been explored in a wide range of publications including the European Union’s *Connecting Universities to Regional Growth: A Practical Guide* (2011),² and *The University and the City* (2013) by John Goddard and Paul

¹ See Department of Education and Skills, *National Strategy for Higher Education to 2030* (Dublin: DES, 2011), <http://www.education.ie/en/Publications/Policy-Reports/National-Strategy-for-Higher-Education-2030.pdf>.

² See European Union, *Connecting Universities to Regional Growth: A Practical Guide* (2011), http://ec.europa.eu/regional_policy/sources/docgener/presenta/universities2011/universities2011_en.pdf.



Vallance. The forthcoming international comparative study, *The Civic University: The Leadership and Management Challenges*, which is currently being prepared by John Goddard, Ellen Hazelkorn, Louise Kempton and Paul Vallance, will complement these earlier publications, presenting case studies of civic engagement in 8 higher education institutions from across 4 European countries.

Through their multi-faceted roles, higher education institutions have enormous potential to contribute to regional development, enhancing knowledge-production and commodification, the skills of the work-force, and social capital. This is reflected in the European context in the central role assigned to higher education in supporting growth and job-creation, and specifically within the EU Smart Specialisation Strategy.³ The European Commission has identified higher education institutions as ‘key partners for regional authorities in formulating and implementing their smart specialisation strategies’, recognising that ‘they can contribute to a region’s assessment of its knowledge assets, capabilities and competencies [...] with a view to identifying the most promising areas of specialisation for the region’ and ‘the weaknesses that hamper innovation’.⁴ More broadly the potential of higher education institutions to contribute to regional development is in evidence in the growing recognition of the value of ‘knowledge-exchange’ as a two-way process between higher education institutions and wider society that can support economic and social development.

Higher education institutions contribute to wider society through 4 key mechanisms: (1) their research activities; (2) support for business incubation and development; (3) the development of human-capital; and (4) regeneration and cultural development through which social equality is enhanced. They advance these goals through the core-funded activities of teaching and research; through externally funded targeted initiatives; through output-oriented ‘transactional services’; and through outcome-oriented ‘transformational activities’. While transactional services (such as those provided on a consultancy basis, graduate-enterprises, work-force development, and student-volunteering) are usually time-bound and designed to meet clearly defined objectives, transformational activities (such as those of science parks and research centres, and those pertaining to internationalisation, widening participation, and cultural development) are usually more open-ended and lacking explicit goals. As the mission of higher education institutions becomes increasingly complex and multi-faceted, the effective mobilisation of their human, intellectual, social and physical capital depends upon collective agreement on how best to address the challenges that this entails.

To date, universities’ role in national and regional development has been generally minimal and lacking in strategic coordination; there has been a failure to acknowledge the potential of the arts, humanities and social sciences to contribute to societal innovation; and the ‘quadruple helix’ of universities, business, government, and civil society has been largely ignored. In addition policy-makers have tended to under-estimate the barriers to engagement with wider society which exist both within institutions and in the wider environment. There

³ See http://ec.europa.eu/research/regions/index_en.cfm?pg=smart_specialisation.

⁴ European Commission, ‘An Agenda for Modernisation of Europe’s Higher Education System’ (2011), 567.



has been a lack of a territorial dimension to higher education policy; a lack of coordination between higher education, science and technology, and territorial policy at national level; higher education institutions have typically reinforced the hierarchies of regions rather than ameliorating them; the role of teaching and learning in supporting knowledge-transfer and human-capital development has been neglected; and there has been a failure to break down barriers between institutions within a city or region and between different types of higher education institution. In broad terms, while higher education has generally featured in national-level policy-making, it is rarely a component of local and regional planning.

Within the European context, a key challenge is to support the attainment of excellence in higher education that will enhance the global competitiveness of the continent while also addressing regional needs. While the focus of the European Commission's Framework Programmes has been on peer-reviewed academic outputs, European Structural Funds have been allocated to higher education institutions with the expectation of the outcome of enhanced regional growth. The Commission's Horizon 2020 programme aims to advance wider societal objectives through the activities of higher education, most notably through the 'Science with and for Society' programme.⁵ This advocates 'responsible research and innovation', as a process in which all societal actors work together to ensure that the outcomes reflect the values, needs and expectations of European society.

Similarly the EU Smart Specialisation Strategy—as a policy to boost regional innovation—encourages synergy between global and regional competitiveness. Concerned with research prioritisation in order to maximise the use of limited resources, with the creation of critical mass, and with building regional competitiveness at world-class level, Smart Specialisation encourages universities to engage with all of the 'knowledge institutions' in their region to advance innovation, entrepreneurship and industrial development. Smart Specialisation calls for universities to become 'strategic institutions' which take a holistic view of knowledge-creation in which research, teaching and engagement are integrated. It aims to ensure that the diversity of an institution's research-base does not contribute to slack in the regional innovation system, and to support the establishment of national innovation ecosystems in which some universities and some regions focus on different stages of the innovation process (from the creation to the application of knowledge). The EU's Smart Specialisation Strategy therefore aims to help to address the bias towards research-outputs which has characterised other EU and national-level incentive structures by focusing on the 'entrepreneurial process of discovery'.

There are a number of barriers to higher education institutions' engagement in regional innovation. Falling outside of the domain of local government, higher education is often perceived as being 'in' rather than 'of' the region; the policies and practices of institutions often discourage external engagement; and recruitment and promotional policies often focus exclusively on research and teaching. Furthermore, research-intensive universities are often 'loosely coupled' organisations in which external partnership-working is confined to the

⁵ See <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/science-and-society>.



senior management or to lone entrepreneurial academics. Outward-looking centres within institutions (such as community outreach offices, technology-transfer offices, and business-incubation centres) often function independently of the broader academic community, and there is often a lack of support for engagement activities in core-funding mechanisms. While a number of university business-models support university–industry engagement (including the ‘triple helix’ model), the role played by civil society and ‘third sector’ organisations in innovation is seldom acknowledged or supported. This is despite the fact that the models for innovation are rapidly changing, with social innovation, open innovation, innovation in services and user innovation becoming increasingly mainstream. There is a need for territorially based collaborative clusters of institutions which work together to form a world-class system of higher education.

Meanwhile, local government is itself often fragmented and lacking in political leadership and a clear vision, with a lack of coherence between local-level policies. Local authorities often have limited powers and have to manage intra-regional tensions—for example, between urban and rural areas. Some regions lack a strong private-sector research and development (R&D) base, and their small and medium-sized enterprises (SMEs) can be disparate with very limited capacity for innovation, militating against the formation of critical mass. Private companies are often motivated by narrow self-interest and short-term goals, and they often lack a representative voice with which to engage with higher education institutions.

With the emergence of new models of innovation, there are a range of partners for higher education institutions’ external engagement including local authorities, public-sector organisations, charities, social enterprises, and non-governmental organisations. This is reflected in the concept of the quadruple helix, which supports the co-production of knowledge with a range of stakeholders and recognises the unique capacity of higher education institutions to support the needs of the economy and wider society. It is also reflected in the range of engagement activities pursued by higher education institutions, including their community-outreach work, research-commercialisation, widening participation initiatives, work-based learning programmes, and business-incubation.

Nevertheless, significant challenges remain in the integration of higher education institutions into the wider eco-system. An online survey of 711 academics in 6 U.K. higher education institutions showed that the majority view other researchers and students as the primary beneficiaries of their research, rather than any external stakeholders or the general public at large. It also showed that the intended impact of the research of a greater proportion of academics in post-1992 universities (the former polytechnics) is concentrated in a particular geographical region or place than in pre-1992 universities; and that the expectation of such impact is greatest in the humanities and social sciences. In the ‘un-civic’ university, the management’s principal focus is on the funding and prestige of the institution (as reflected in rankings and research excellence), while so-called ‘third-mission’ activities are marginalised. Other challenges that need to be addressed in supporting the development of the ‘engaged university’ include:



- the development of policy within higher education institutions in silos, each dealing with a single function;
- the difficulties inherent in seeking to measure the performance of institutions across all areas of their activities;
- the dominant focus on science and technology and on the triple helix of the university, business, and government; and the neglect of the potential of the arts, humanities and social sciences to address societal challenges in the quadruple helix;
- the question of how best to allocate resources across institutions in an age in which rankings inform funding-decisions and the stratification of higher education systems;
- the alienation of elite universities from the communities of which they are a part; and
- the failure of funding models to acknowledge that innovation derives from interaction between higher education institutions and external stakeholders.

In the new model of the 'civic university', the 3 core roles of the institution (teaching, research, and engagement) are pursued holistically in response to the evolving needs of wider society. There are 7 dimensions to the civic university, each of which may be at a different stage of development (ranging from embryonic to embedded), namely:

1. The institution is actively engaged with the wider world and local community;
2. The institution takes a holistic approach to engagement, which is institutionalised;
3. The identity of the institution is informed by a sense of place;
4. The institution has strong sense of its mission, strengths, and purpose;
5. The institution is willing to invest in order to make an impact on wider society;
6. The institution is accountable to its stakeholders and the wider public;
7. The institution utilises innovative methodologies (such as social media and team-building) in its external engagement activities.

All sectors have a role to play in supporting the advancement of the civic university: the public sector needs to develop coherent policies that link territorial development to innovation and higher education; the private-sector has a responsibility to invest in people and ideas which will support growth; and the higher education sector has a responsibility to support the development of intellectual capacity and human capital. All 3 sectors need to be supported by evidence-based policy-making for innovation and growth. The transition towards regions in which all sectors are connected in their functionality depends upon:

- leadership capacity and the ability to create a shared vision for the future;
- the capacity for collaboration, through networks and associations, through neutral regional brokers as well as through joint projects and the sharing of facilities;
- maximising the use of available resources through cluster-formation, the generation of critical mass, and the nurturing of social ties; and upon
- the generative capacity of research institutions, laboratories, and higher education institutions.



Professor Rob Kitchin (National Institute for Regional and Spatial Analysis, Maynooth University)

Traditionally regional governance in Ireland has been weak, one of the key roles of regional authorities being to draw down EU structural funds. Prior to the late 1990s, no research-funding was available for higher education institutions, and investment in industry through Science Foundation Ireland (SFI) and Enterprise Ireland (EI) also only became available in the twenty-first century. Thus the development of Ireland's research-base is primarily an achievement of the past 15 years. Within this context, the foundations for the development of regional clusters of higher education institutions is weak, and on-going capacity-building is needed at a time of increasing austerity for the sector.

Demographically Ireland is expanding: there was an increase of 28.3% in the 0–4 age-cohort, and of 21.5% in the 5–9 age-cohort, between 2002 and 2011 which, in ten years' time, could lead to very high levels of enrolment in higher education. Yet, while the government is building schools to cope with this demographic expansion, there is also a need for the expansion of higher education institutions. Between 2006 and 2026 the number of young people (aged 0–14 years) is projected to increase by 28.8% across the Irish State.

The catchment area of most of Ireland's institutes of technology is geographically proximate, while that of the 7 universities is more disparate, ranging across different regions. The 5 regional clusters of higher education institutions proposed in the HEA's 'Report to the Minister for Education and Skills on System Reconfiguration, Inter-Institutional Collaboration, and System Governance in Irish Higher Education' (2013) will therefore be cross-cutting in the regions that they serve in terms of programme provision.⁶

Open discussion

There was a call for a whole-of-government approach to the development of regional policy, although it was noted that similar discussions were held 10 years ago when the *National Spatial Strategy 2002–2020* was developed and that regional plans are being developed through its implementation.⁷ It was recognised that the higher education community can only develop policy for the sector, and there was therefore a call for focus on the potential of regional clusters to enhance educational provision, particularly through the enhancement of student-progression pathways within and between regional clusters. Nevertheless the potential to build on the whole-of-government reform of the public sector was acknowledged, as well as the scope to enhance engagement with the unemployed through labour-market activation initiatives and through partnership-working with SOLAS—Ireland's newly established further education and training authority.⁸

⁶ See HEA, 'Report to the Minister for Education and Skills on System Reconfiguration, Inter-Institutional Collaboration, and System Governance in Irish Higher Education', 17th April 2013, [http://www.heai.ie/sites/default/files/report to minister - system configuration 2.0.pdf](http://www.heai.ie/sites/default/files/report%20to%20minister%20-%20system%20configuration%202.0.pdf).

⁷ On Ireland's National Spatial Strategy see <http://www.irishspatialstrategy.ie/>.

⁸ See <http://solai.ie/>.



A question was raised about where the leadership at regional level resides in Ireland, and how this relates to the higher education sector. Professor Goddard noted that, traditionally, spatial and educational planning have not been coordinated, and that organisations such as the National Institute for Regional and Spatial Analysis are vital to fostering such links.⁹ He also stressed the necessity to mobilise higher education institutions to develop expertise in the field of urban regional development. While it was acknowledged that, within the European context, Ireland is itself a region, it was also acknowledged that there is sometimes a need for services to be sub-regional. The importance of maintaining the diversity of higher institutions in Ireland was emphasised, especially given their varied expertise in different types of knowledge-production (mode 1 and mode 2). It was noted that the quadruple helix develops once regions evolve and become better connected, and the question as to whether Irish higher education institutions are diversifying their programme provision in response to the emerging needs of wider society was raised. Professor Goddard cautioned against mission-drift in the higher education sector, particularly in respect of newer higher education institutions which aspire to become like older universities with whom they will never compete. He emphasised the need for a debate about the kind of higher education sector one wishes to foster.

Generating impact and benefit through engagement with enterprise and civil society: exploring experiences in Ireland and internationally

Dr. Maria Hinfelaar (President, Limerick Institute of Technology) / Shannon Consortium

Limerick and the wider mid-west region of Ireland was once renowned for high unemployment and social deprivation, and it was recognised in government task-force reports that this was, in part, a consequence of the fragmentation of agencies. To address this, Limerick city and county were amalgamated to create an urban area and a hinterland of over 120,000 people. In addition, the regional entity, Shannon Development, was abolished and its functions absorbed by other bodies (Shannon Airport, Enterprise Ireland, and Fáilte Ireland); and the *Limerick Charter* and *Limerick 2030 Strategy* signal the commitment of the signatories (the city and county authorities, the higher education institutions in the region, Limerick Chamber of Commerce, and Shannon Airport) to foster cohesion and convergence.¹⁰ Some of the stated ambitions of the *Limerick 2030 Strategy* include the re-development of the waterfront of the River Shannon, knowledge-based investment and innovation, and the provision of a joint presence in the city centre for all 3 Limerick-based higher education institutions—the University of Limerick, Limerick Institute of Technology, and Mary Immaculate College, Limerick.

The new approach to regional development in Limerick has borne fruit. In 2014 Limerick was designated the first national City of Culture, and Limerick City and County Council won the Chambers Ireland Local Authority of the Year competition. Limerick city centre is under-going re-development, and there is now a clear focus in regional policy on ICT and engineering as

⁹ See <http://www.maynoothuniversity.ie/nirsa/>.

¹⁰ On the *Limerick 2030 Strategy* see <http://www.limerick2030.com/>.



successful industry-clusters, which has led to major job announcements by IDA-supported companies (such as Regeneron, Northern Trust, Optelvision, and SAP Technologies). Since 2006 there has been a 1% increase in the labour-force in Limerick; in the second quarter of 2014 unemployment in the mid-west region decreased to 13.2% (against a national unemployment rate of 11.8%) from a peak of 17.1% in 2010; and in 2014 the Live Register in Limerick declined from 21,160 in 2011 to 16,310. (The mid-west region has been the first in Ireland to obtain funding from the European Global Adjustment Fund (EGF).¹¹) Shannon Airport has experienced a resurgence in terms of passenger-traffic (and in terms of the presence of aviation industries) with a positive impact on tourism.

Within the sphere of higher education, the Shannon Consortium (comprising the University of Limerick (UL), Mary Immaculate College (MIC), Limerick Institute of Technology (LIT), and the Institute of Technology, Tralee (ITT)) was established in 2006 under the HEA's Strategic Innovation Fund (SIF). Securing €20 million of competitive funding, mostly through the SIF, for collaborative projects, this consortium of autonomous higher education institutions rapidly became a key feature of the Irish higher education landscape, and (subsequent to the departure of ITT from the Shannon Consortium) is now referred to in policy-documents as the 'mid-west' regional cluster.¹² The regional award for teaching excellence, established by the Shannon Consortium under the SIF to recognise and reward high-quality teaching practice in partner institutions, provides an example of one of a wide range of collaborative SIF projects pursued by the Consortium with lasting impact.¹³

The 3 higher education institutions which today comprise the Consortium (UL, MIC, and LIT) are all within the geographical proximity of a medium-sized city, although their primary catchment area also encompasses adjoining counties, with 71% of their intake defined as 'regional'. (Following the merger of Tipperary Institute into LIT in 2011 (and LIT's acquisition of 2 Tipperary-based campuses in Thurles and Clonmel), the Shannon Consortium is now country and city-based.) The partner institutions' programme-provision covers all disciplines, as classified under the International Standard Classification of Education (ISCED), inclusive of some provision with national or niche status.¹⁴ The total budget of the 3 institutions is approximately €0.25 billion, with which approximately 2,300 staff and 21,000 students are supported. Thus, while the budget of the Consortium *per se* is much-reduced since the conclusion of the SIF, the 3 institutions nevertheless remain a powerful economic force and, taken together, probably represent the region's single largest employer. As the mid-west regional cluster, the Shannon Consortium is the major collaborative initiative of the participant institutions (without prejudice to other collaborations), as outlined in the

¹¹ See <http://egf.ie/>.

¹² See, for example, HEA, 'Report to the Minister for Education and Skills on System Reconfiguration', 20.

¹³ See <http://www3.ul.ie/ctl/teaching-awards>. For full details of all SIF projects, see HEA, *Strategic Innovation Fund: Outputs and Outcomes* (2013), http://www.heai.ie/sites/default/files/strategic_innovation_fund_-_outputs_outcomes_report_2013_final.pdf.

¹⁴ On the ISCED see <http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>.



memorandum of understanding (MoU) that was signed in 2014. This MoU outlines the shared vision of the Consortium (derived from the 3 institutions' strategic plans) thus:

Based upon a shared vision derived from our strategic plans, national policy and regional/national skills needs, LIT, MIC and UL aim to develop a deeper, formalised alliance which will span across a defined range of core areas. These areas will contribute towards enhanced and sustainable opportunities for current and future learners across the three organisations and will benefit industry and the wider community.

As detailed in the MoU, the Shannon Consortium is currently pursuing a range of objectives to address national and regional priorities spanning the areas of taught programmes, e-learning, teacher education, transfer and progression student-pathways, research programmes, enterprise and community-engagement, shared-services and facilities, and the promotion of the region. The independent chairman of the Consortium, Mr. Tim O'Connor (former Secretary General to the President of the Republic of Ireland and currently vice-chairman of the Limerick City of Culture board), oversees a Steering Committee comprising the presidents of the 3 partner higher education institutions, and an Implementation Board comprising the vice-president (academic) and 2 other senior managers from each institution. The business of the Consortium is also advanced through working groups dedicated to specific initiatives, such as the Limerick Federated Graduate School plan which is currently being developed by the deans of graduate studies. It is also being advanced through partnership-working with other stakeholders, including Limerick Council and the Limerick Economic Forum, at the steering committee meetings of which the Shannon Consortium is represented.

The achievements to date of the Shannon Consortium include:

- A comprehensive mapping exercise of all taught programmes;
- Module-sharing in geography; plans for a UL–MIC joint B.A. programme; the roll-out (from 2014/15) of LIT's Art and Design Teacher Education programme with UL-validation and module-sharing; and shared provision of English-language training for international students;
- The agreement of a plan for a National Institute for Studies in Education (NISE) to encompass all primary and secondary initial teacher education provided by MIC and UL;
- The 'Threshold Concepts' project with secondary schools to support students' transition into higher education;
- Mapping of entry-routes into partner institutions, and analysis of data pertaining to entry-routes of students;
- The establishment of the Federated Limerick Graduate School is in train, with UL providing NFQ level 10 validation for LIT and MIC;
- Delivery of shared enterprise-development programmes, and contribution to the advancement of the agenda for the regeneration of Limerick;



- Hosting of joint open days, and co-hosting (with industry partners and other organisations) of the Irish Technology Leadership Group (ITLG)'s 2014 conference, 'Limerick for IT'.

The progress of the Shannon Consortium in advancing its objectives will be assessed through the partner institutions' strategic dialogue with the HEA (and through the metrics agreed in the institutions' compacts with the HEA), but the renewed commitment of the 3 partner institutions to enhancing their collaborative work has been well-received by stakeholders, especially in industry. The governance and management structures of the Consortium are working well and there is now evidence of progress in respect of each of the objectives identified in the MoU.

The key challenges which the Consortium now faces are to deepen this collaboration (moving away from *ad hoc* initiatives supported with targeted funding towards the transformation of institutions' core business) and to advance the national priorities identified by the HEA while at the same time meeting local and regional expectations. Furthermore, the challenges of developing metrics and a methodology for assessing the regional impact of the Consortium have yet to be developed. Obstacles to the success of the Consortium in respect of joint academic planning and programme delivery include the different cultures of the 3 partner institutions and variations in their staff-contracts. Overall, a key challenge is to maintain the momentum in the development of the Consortium—as the 'Shannon Consortium' rather than the 'mid-west cluster'.

Professor Philip Nolan (President, Maynooth University) / Dublin/Leinster Pillar II cluster

The formation of regional clusters of higher education institutions in Ireland was recommended in the *National Strategy for Higher Education to 2030*, in which they are conceived as an important vehicle for changing institutions' *modus operandi*.¹⁵ As envisaged in the *National Strategy*, these clusters will enhance the quality and efficiency of institutions, supporting the consolidation, as well as the differentiation, of programme offerings; facilitate student-transfer and progression; support the pooling of expertise and the sharing of services; and enable coordinated engagement with enterprise and other stakeholders at regional level. The configuration of the Irish higher education landscape into 5 regional clusters was subsequently set out in the HEA's 'Report to the Minister for Education and Skills on System Reconfiguration, Inter-Institutional Collaboration, and System Governance in Irish Higher Education' (2013), in which the Dublin/Leinster Pillar II cluster was conceived. The 5 clusters are diverse, comprising universities and institutes of technology each of which has an important hinterland to serve; and they are based on geographical proximity rather than on any hierarchical ranking of institutions.

By contrast with the Shannon Consortium, the Dublin/Leinster II cluster is at an early stage of development and is still more inwardly focused on building trust between partners. It is situated in an area of huge demographic growth with rising student-demand for places in

¹⁵ See DES, *National Strategy*, 98–99.



higher education. The higher education institutions comprising the Dublin/Leinster II cluster—Maynooth University (MU), Dublin Institute of Technology (DIT), the Institute of Technology, Tallaght (ITTD), the Institute of Technology, Blanchardstown (ITB), Dublin City University (DCU), the National College of Ireland (NCI), Dundalk Institute of Technology (DKIT), Athlone Institute of Technology (AIT), and the Royal College of Surgeons in Ireland (RCSI)—are diverse and moderately dispersed geographically across areas of affluence, rural poverty, and urban deprivation. Incorporating 3 pre-existing alliances (the 3U Partnership of MU, DCU and RCSI; MU’s partnership with AIT; and DCU’s partnership with DKIT), the cluster emerged through a process that was both ‘top-down’ and ‘bottom-up’.¹⁶ The vision of the cluster is to achieve greater impact through collaboration, and its objectives are to share academic planning; to coordinate access, transfer and progression pathways; to share services to support academic collaboration; and to adopt a regional approach to enterprise and community-engagement. Achievements in respect of the advancement of these objectives by 2016 are agreed in the partner institutions’ compacts with the HEA.

The Dublin/Leinster II cluster is governed by a Board comprising the presidents and vice-presidents (academic) of MU, AIT, DCU, and DKIT, which meets quarterly and is chaired by an institutional president on a rotating basis. In addition, steering groups have been formed to oversee the activities undertaken by the 3 pre-existing alliances, as well as under the SIDF, across a broad range of areas. The achievements to date across these groups include the establishment of a joint master’s programme, an international foundation programme, and an office in Beijing by the 3U Partnership; academic collaborations within the DCU–DKIT and AIT–MU partnerships; and, within the cluster as a whole, shared academic and enrolment-planning, an alliance with the further education sector, an online portal, and student-learning supports are being established. The success of the cluster is being measured against specified and agreed deliverables (set out in the institutions’ compacts with the HEA) in respect of entry-routes, undergraduate programme-provision, the provision of shared programmes, international student-recruitment, and knowledge-transfer and exchange. The focus of the Dublin/Leinster II cluster in the immediate future will be on academic planning; access, transfer and progression; the consolidation of programme provision; internationalisation; and enterprise and community-engagement.

It is clear from the experience of the Dublin/Leinster II cluster that the cluster-concept is working successfully to foster inter-institutional collaboration and good relations between institutional leaders, and to enhance transparency and accountability through strategic dialogue with the HEA. However there is concern that the expectations of regional clusters are too great and that these are too focused on cost-cutting, despite the fact that collaboration is not always efficient and has a start-up cost. At a time when institutions are operating under severe budgetary constraints, much of the time and energy of institutional leaders and managers is consumed with survival, leaving little scope for responsiveness to new policy initiatives. The provision of targeted funding on an *ad hoc* basis, and the

¹⁶ On the 3U Partnership see <http://3u.ie/>.



introduction of performance-related funding to support cluster-development, does little to mitigate these challenges.

Dr. Annemieke Galema (Director, Research and Valorisation, University of Groningen) / Northern Netherlands Provinces Alliance

Groningen is a northern province of the Netherlands and has, since 1992, been part of the Northern Netherlands Provinces Alliance (Samenwerkingsverband Noord-Nederland (SNN))—an alliance with the neighbouring provinces of Friesland and Drenthe, the goal of which is to strengthen the economic position of the northern Netherlands.¹⁷ The region, which is diverse and not densely populated, includes 4 cities—Groningen, Assen, Leeuwarden, and Emmen—has strong provincial government. There is one university within the region (the University of Groningen), a university hospital, and 4 universities of applied sciences (Hanze, Stenden, Van Hall, and Noordelijke Hogeschool Leeuwarden) situated within a national higher education system comprising 13 universities, an open university, and 8 university medical centres. The mission of the Alliance is to support cooperation between the regional authorities and between the higher education institutions in the region to foster innovation for sustainable and inclusive growth. The Alliance focuses on five economic clusters—energy, sensor technology, water technology, agribusiness and healthy ageing—across the horizontal themes of human capital, internationalisation, and digitising; and, in 2004, signed the Agreement of Groningen which commits the partners to cooperate to address social problems as well as to foster economic growth.

While the activities of the Alliance are managed by the regional clusters of which it is comprised and valorised within a city-setting, the Alliance is overseen by a steering committee drawn from across the triple helix of higher education, industry and the government. The work of the Alliance is monitored across a range of indicators, including R&D spending, unemployment-rates, the number of patents registered, the number of SMEs engaged in innovation, the engagement of SMEs with knowledge-institutes, the number of public-private partnerships formed, and the output-indicators of European programmes. While the Alliance supports cooperation, tensions have arisen between provincial authorities, between ‘top-down’ and ‘bottom-up’ approaches, and between regional and national objectives. New governance arrangements are currently being implemented, to include a steering committee with more flexible membership, and a shared innovation agenda. The next steps for the Alliance include synchronising regional innovation with international policies, enhancing interdisciplinary and multi-disciplinary cooperation, and ensuring that the activities undertaken ‘add value’ to society without undermining their quality.

Oscar López Lorente (Executive Director, Campus Iberus)

Campus Iberus is a network of 4 Spanish universities, each in a different region.¹⁸ Subsequent to the publication by the Spanish Government of *Strategy University 2015: Modernising the*

¹⁷ See <http://www.snn.eu/en/>.

¹⁸ See <http://www.campusiberus.es/?lang=en>.



University (June 2010), Campus Iberus was established with funding from the Spanish Ministry of Education's International Campuses of Excellence Programme.¹⁹ Comprising 4 publicly funded universities in the Ebro River Valley and spanning 4 Spanish regions (Aragón, Navarra, Rioja, and Lleida in Catalonia), Campus Iberus has a strong regional dimension, and also incorporates 2 universities in the south of France (Université de Pau and L'Université Fédérale Toulouse Midi-Pyrénées). The network has adopted a research prioritisation strategy focused on energy, agro-food, ICT for health, and territorial development, with a view to developing critical mass in these areas, and it aims to support socio-economic development through engagement with wider society while also optimising the use of resources. The overarching goal of the network is to create a regional innovation platform with stakeholders from industry, higher education, regional government, and civil society.

With a President and Vice-President, Campus Iberus is overseen by a Governing Board comprising 4 rectors, vice-rectors and presidents of the social councils of the 4 participant Spanish universities, in addition to an Executive Committee, comprised of the 4 rectors. The work of the consortium, which is managed by an Executive Director, is also informed by an Advisory Committee. Campus Iberus has evolved from a project consortium into an autonomous legal entity with an executive governance structure; and at operational level has delivered joint postgraduate programmes, established joint research groups in partnership with industry, and developed a joint research and innovation strategy for Horizon 2020, as well as a cross-border research strategy with the French partner-universities. Specific initiatives are advanced by project working-groups. At present the success of Campus Iberus is evaluated (against approximately 100 indicators) through annual progress reports submitted to the Spanish Ministry of Education under the International Campuses of Excellence Programme. From 2016 onwards, subsequent to the conclusion of this programme, a new evaluation process will be instituted with new indicators focused on knowledge-transfer, innovation and the impact of the consortium's activities on regional development.

The success of Campus Iberus to date results from the adoption of a combination of 'top-down' and 'bottom-up' processes, from partnership-working between universities, from strong focus on a small number of large projects, from agile decision-making structures, and from close interaction with stakeholders in wider society in the regions. Challenges to this success include the geographical dispersion of the 4 Spanish universities across 4 different regions and their different sizes and calendars, the need to build trust between partners, and issues which arise for Campus Iberus as an autonomous legal entity *vis-à-vis* national legislation for consortia. Looking to the future, the consortium is currently updating its strategic plan and developing a joint action plan, funded by the European Science Foundation (ESF) and the European Regional Development Fund (ERDF); further developing its governance and operational structures; developing international links (e.g. through the establishment of a cross-border campus between Spain and France) and strengthening the

¹⁹ See <http://www.mecd.gob.es/dctm/eu2015/2010-eu2015-ingles.pdf?documentId=0901e72b804260c4>.



international mobility of students and staff; and developing joint postgraduate degrees to be validated by Campus Iberus.

Open discussion

A question was raised about why the Dublin regional cluster is sub-divided into 2 pillars when the city has one regional innovation system, in response to which it was clarified that the clustering of higher education institutions in Ireland is a progressive process and that there is an aspiration to merge the 2 Dublin clusters in due course. The challenge of fostering regional diversity at the same time as addressing shared global problems was noted, and it was suggested that it is imperative for each region to identify its own areas of particular expertise while also finding common cause with international partners.

A question was raised about how Campus Iberus will manage its joint postgraduate degree programmes, in response to which Mr. López Lorente clarified that, while the distance between partner institutions in the consortium is approximately 450km, there are nonetheless good rail connections between them facilitating student-mobility. He added that the consortium is investing in ICT systems to support flexible learning and research on a remote basis. Mr. López Lorente was also asked about how external stakeholders were engaged in the development of the ESF / ERDF-funded joint action plan, in response to which he explained that, in the first instance, this plan is focused specifically on the agro-food sector. He emphasised that the International Campuses of Excellence Programme, through which Campus Iberus is supported, aims to modernise Spanish universities as well as to foster their engagement with wider society; and that, within a Spanish higher education landscape constituted of 82 universities, their aggregation is a precursor to the merging of institutions.

Rethinking regional clusters and innovation

Professor Susan Christopherson (Department of City and Regional Planning, Cornell University)

Regional clusters of higher education institutions as ‘knowledge-sharing networks’ have the potential to support innovation and to benefit industry, regions, and nations. They can support enterprises to maximise their productivity and to increase their competitiveness in global markets; they can enhance job-creation and regional economic development; and they can help to create a diversified, sustainable economy at national level. The concept of ‘clusters’ originated within industry, in which the inter-connection of enterprises is often critically important to sharing knowledge and supply-networks, to transforming existing industries, and to creating new industries. Indeed arguably, the enhancement of employment opportunities is the key criterion against which the success of clusters should be measured.

Ireland is a challenging environment within which to establish clusters. As a small island, its economic development strategy is focused on attracting foreign direct investment, and this has resulted in the establishment of multi-national companies (in electronics and ICT), which



view Ireland itself as a region, on the periphery of cities. At the same time, Ireland has a wealth of rapidly expanding indigenous industries (including cultural industries) which represent the Irish 'brand' but which are not connected to the multi-national companies.

Through their centres of excellence, business incubators, and technology parks, higher education institutions are a vital source of the innovation upon which enterprises and regions depend. Innovation can take many forms, including disruptive inventions which result in the creation of new products or of new processes which support the enhancement of productivity and quality. However while the innovation supported by higher education institutions often leads to the creation of start-up companies and of saleable intellectual property, it seldom produces enterprises which expand to create jobs. The model for innovation in higher education is often linear (from basic research to applied research to the creation of a start-up company or intellectual property), while that which occurs in the broader economy is relational (depending upon a network of knowledge-providers, firms, suppliers and clients). Within industry, the goal of innovation is to have an impact on the market-place and to capture profit, often within a short time-frame. However much of the policy-making for higher education in this area (including the U.S.A.'s Bayh–Dole Act of 1980) has focused on the patenting and licensing of research, overlooking the interactive nature of university–industry engagement, and the fact that this is reciprocal, bringing benefits for the higher education institution as well as for the company. There is a compelling need to move away from the linear model of technology-transfer favoured by universities towards two-way engagement and knowledge-sharing.

Within clusters, higher education institutions have a key role to play in connecting strategically with industries in their regions and internationally. They need to be responsive to the human-capital and R&D needs of local industry, and to support a variety of approaches to industry-engagement (including open collaboration, translational research, low-tech innovation, 'frugal innovation' (which entails reducing the complexity and cost of a product and production processes), and philanthropy). Maximising the interaction between different types of higher education institution and regional industries also pays dividends, especially if bespoke strategies for engagement with different types of industry are developed. Ensuring ease of access to the research and development activities of higher education institutions by industry is also critically important to supporting innovation.

Within the Irish context, higher education institutions need to meet the human-capital needs of industry to support innovation; to work with SMEs to help them to reach and expand in global markets; and to work with large corporations which are already established within such markets. The success of regional clusters should be measured in terms of the sustainability and transformation of regional industry, and employment-growth.

Joe Crockett (Former Chief Executive, Kilkenny County Council)

Supporting sustainable economic development and ensuring global competitiveness are key challenges of our times. Our progress in fostering economic recovery rests on very thin



foundations and the future is uncertain. Public servants have a duty to help citizens to improve economic performance, and this changes our expectations of the mission of higher education institutions. Within Ireland there is strong reliance on foreign direct investment, although multi-national companies are not evenly distributed across the country and are absent from some regions. Nevertheless every region has its strengths, and tourism and SMEs are country-wide characteristics of the Irish economy.

In the south–east region (whose strengths lie in financial services, agri-business, tourism, and SMEs) there is a strong imperative for the establishment of a technological university to meet the emerging skills needs of the region. There is also a strong need for a strategic approach to the development of the region. In 2007 (prior to the economic crash), Kilkenny County Council created a strategy for the county (which became a regional strategy) with the assistance of 7 chief executive officers of private companies who would otherwise have been working in isolation.

Taking into account the Local Government (Planning and Development) Act of 1963, the National Spatial Strategy (2002), and the policy of the Department of the Environment, Community and Local Government and of the Department of Arts, Heritage and the Gaeltacht, a new model of economic development is emerging for Ireland.

Professor Linda Hogan (Vice-Provost / Chief Academic Officer, Trinity College Dublin)

While it is reasonable for policy-makers to hold to the view that success in innovation is best measured through job-creation and that higher education institutions have a role to play in this, this is too narrow a prism through which to evaluate the work of universities. In grappling with this issue, Trinity College Dublin (TCD) has sought to strengthen its relationship with industry. In 2013 TCD launched a *Strategy for Innovation and Entrepreneurship* in order to drive innovation and to position the College as a catalyst for economic development in the Dublin region.²⁰ Today TCD contributes to the broader economy and society, not just through scientific institutes such as CRANN, but also through public engagement through, for example, the Science Gallery.²¹ It is an intrinsic element of the ecosystem in Dublin, which has generated a host of technological and creative clusters as well as start-up companies across the city. In supporting this ecosystem, the key challenge is to facilitate two-way knowledge-exchange with wider society.

From 1986 onwards, TCD's collaboration with industry increased through participation in the European Commission's Framework Programmes and, with the launch of the Seventh Framework Programme (FP7) in 2007, there was a step-change in this collaboration as significantly increased funding became available for research.²² The establishment of SFI in 2000 (and on a statutory basis in 2003) also enhanced support for scientific research, and TCD

²⁰ See Trinity College Dublin, *Strategy for Innovation and Entrepreneurship* (2013), <http://www.tcd.ie/innovation/assets/documents/trinity-ie-strategy.pdf>.

²¹ See <http://www.crann.tcd.ie/> and <https://dublin.sciencegallery.com/>.

²² On the Seventh Framework Programme see http://cordis.europa.eu/fp7/home_en.html.



tried to re-orientate its activity to expedite the licensing of intellectual property. During this period TCD's primary focus was narrowly science-based.

However, since 2013 TCD's thinking has evolved and is now aimed towards ensuring that innovation permeates the College's vision of teaching and research. As envisaged in the *Strategy for Innovation and Entrepreneurship*, TCD is establishing an Innovation and Entrepreneurship Hub, which will be co-located in the new Trinity School of Business. While, to date, undergraduate curricula in TCD have been siloed, the Hub will support the restructuring of the curriculum in partnership with industry, supporting 'a growing entrepreneurial culture among Trinity's students and faculties, driv[ing] job creation in the city centre, and help[ing] position Dublin as global node for innovation and start-up enterprises'.²³ The sub-division of the higher education institutions in the Dublin region into 2 clusters inhibits regional development, and institutions are faced with difficult choices in respect of the areas they prioritise for strategic development at a time of severely constrained resources. Nevertheless there is great potential for higher education to support innovation in the Dublin area.

Niall O'Donnellan (Division Manager, Investment Services, Enterprise Ireland)

Enterprise Ireland (EI) works with approximately 3,000 clients, most of whom represent the SMEs that generate jobs for 1 in 6 people in the Irish economy.²⁴ EI's objective is to support SMEs to innovate and to internationalise, to which end they require from the higher education sector graduates, R&D, and connections. While larger companies are often well-connected to higher education institutions, SMEs struggle to forge links, and lack awareness of the activities undertaken within institutions. In Germany, SMEs enjoy close relationships with further and higher education institutions, supporting academic positions within them. However these relationships have been built up over decades and reflect a degree of cultural difference between Germany and Ireland.

The Irish economy is in a fragile state within a competitive world, within which context the interconnectedness of SMEs is critically important. To foster this interconnectedness, EI is establishing an SME innovation network, which has been piloted in the west of Ireland, bringing 40 companies into the National University of Ireland, Galway and Galway-Mayo Institute of Technology. The network encourages SMEs to explore how they can become more competitive and how the higher education sector can help them to achieve this goal—through, for example, supporting their participation in Horizon 2020 or helping to meet their skills needs. The network will help SMEs to strengthen the expertise within their region in partnership with higher education institutions, developing pathways through which employees can progress from a certificate to a degree to a master's degree. Once rolled out

²³ TCD Communications Office, 'Trinity Announces €70m Business School and Innovation Hub to Drive Culture of Job Creation', 8th November 2013, <http://www.tcd.ie/Communications/news/pressreleases/pressRelease.php?headerID=3340&pressReleaseArchive=2014>.

²⁴ See <http://www.enterprise-ireland.com/en/>.



nationally, the network will also provide SMEs with insight into the work of their counterparts in other regions.

Regional leadership is also vital to economic growth in Ireland and, while it is the responsibility of EI to facilitate this, all stakeholders have a part to play, including higher education institutions through their engagement mission.

Gina Quin (Chief Executive, Dublin Chamber of Commerce)

Dublin Chamber of Commerce is a non-profit organisation which represents business and also influences government policy.²⁵ The Chamber views Dublin as a very dynamic region which operates as a cluster, and aims to drive the Irish economy by fostering collaboration and symbiosis between different sectors of the economy (such as ICT and the financial services), higher education, and the government. Higher education institutions play a vital role in the broader economy by supplying the skilled human-capital which supports multi-national and indigenous companies.

In 2008, Dublin Chamber worked in partnership with the Irish Government and Dublin City Council on a job-creation initiative through which multi-national companies helped SMEs to develop an online presence to support their internationalisation. The Chamber has also studied the innovation ecosystem in the region and, recognising the huge potential of clusters to foster collaboration, supports the creation of innovation clusters, bringing together start-up companies from across Dublin.

Crucial to fostering innovation is the study of entrepreneurship in schools and across higher education, and the young entrepreneurship programmes which have been established in Ireland are making an important contribution to embedding this in curricula.²⁶ More broadly there is a need to infiltrate society with the concept of entrepreneurship and for the Government to be more demanding in respect of targets for innovation.

Closing remarks

Professor John Goddard, O.B.E. (Emeritus Professor of Regional Development Studies, Newcastle University)

To conclude the event, Professor Goddard provided some reflections on the day's discussions which, he suggested, could be sub-divided into one conversation about the future of higher education and another about Ireland's national and regional development. There is a need to develop a strategy for forging a national innovation system which is inclusive of higher education institutions as active players—a process which could be undertaken independently of the structural reform of the higher education sector and which could be supported by a

²⁵ See <http://www.dubchamber.ie/>.

²⁶ See for example <http://www.youngentrepreneur.ie/>.



leadership programme, with members drawn from across different sectors.²⁷ Ensuring ease of access for SMEs into higher education institutions is also critically important to fostering regional development.

²⁷ In the U.K. the Leadership Foundation for Higher Education works in partnership with a range of organisations to develop and improve the management and leadership skills of existing and future leaders of higher education. See <http://www.lfhe.ac.uk/>.