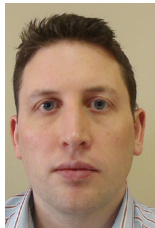


## A FUNCTIONAL-BASED APPROACH TO MEASURING THE SOCIO-ECONOMIC PERFORMANCE OF IRELAND'S PRIMARY URBAN CENTRES: FINDINGS AND POLICY IMPLICATIONS FROM THE GATEWAYS AND HUBS DEVELOPMENT INDEX 2012



**Ms. Derville Brennan and Mr. Adrian O'Donoghue**

**This paper establishes a methodological approach to define the functional areas and economic reach of the Republic of Ireland's (hereinafter referred to as 'Ireland') designated Gateways and Hubs<sup>1</sup> to provide a greater understanding of the socio-economic performance of Ireland's primary urban centres and nodes of competitiveness. It argues that the persistent absence of a clearly articulated strategic approach to pragmatically optimise regional economic development is exacerbating a two-tiered economy with widening disparities in the capacity of Ireland's key urban regions to attract investment, people and contribute to economic growth. This paper proposes that policy-makers consider the principles of 'place-making' to enable a more informed approach to managing diverse growth patterns, agglomeration effects and developmental challenges. While acknowledging the definitional contestation of this policy arena, it notes the inherent benefits accruing from adopting an interdisciplinary approach across the panoply of socio-economic factors in its potential to increase the sustainability of our urban centres.**

### **Introduction**

Urbanisation is a dominant trend globally, shaping

economies, societies, cultures and the environment. Half of the world's population now live in cities and urban areas, and this pattern is set to grow by as much as two-thirds by 2050 (OECD, 2012). Understanding the functionality of cities and towns is crucial to delivering economic prosperity and improving the quality of life of residents, given the inevitable tension that arises in attempts to attain a balance in the implementation of spatial, economic, environmental and social considerations. Undertaking a process of measuring and monitoring a range of socio-economic urban metrics allows policy-makers to evaluate the merits and the impacts of public policies which ultimately conspire to influence the performance of urban areas.

The Border, Midland and Western Regional Assembly and Southern and Eastern Regional Assembly, Ireland's two NUTS II<sup>2</sup> level regional bodies, managed the development of the Gateways and Hubs Development Index (GHDI) 2012<sup>3</sup> (Border Midland and Western Regional Assembly & Southern and Eastern Regional Assembly, 2013). This involved undertaking a detailed assessment of the socio-economic performance of those cities and towns strategically designated as Gateways and Hubs under the Irish *National Spatial Strategy (NSS) 2002-2020* (Department of Environment and Local Government, 2002). While causality is not fully established in the Index itself, the implications of the findings are further explored in this paper.

While the NSS was initially envisaged as the considered and systematic response to the commitment to promote more balanced social and economic regional development, it has subsequently suffered from a lack of political commitment (Meredith & Van Egeraat, 2013), as expressed in criticisms of (a) a general absence of

the inclusion of substantial economic analysis of key decisions (Morgenroth, 2013), and (b) a lack of policy coherence across government departments characterised by an unevenness of funding programmes (Moylean, 2011). Nevertheless, the key functional areas under examination represent Ireland's regional economic drivers and merit further analysis as demonstrated by the findings of the GHDI where progress was identified across a number of domains for the designated areas. A wide-range of strategic national, regional and local-level policies has influenced the performance of these designated Gateways and Hubs. Understanding their effects, both positive and negative, is important therefore in terms of informing the future direction of regional policy in Ireland.

Nationally, Gateways are expected to act as strategically selected engines of growth to enable the regions, and by extension the country, to grow to its potential within a national spatial and forward planning framework. The NSS identified nine Gateways cities and towns to fulfil this role: these included Cork, Dublin, Dundalk, Galway, Limerick/Shannon, Letterkenny, a combined Midland Gateway bringing together the towns of Athlone, Mullingar and Tullamore, Sligo and Waterford. At a regional level, Gateways are positioned to guide more balanced regional development; and therefore ensuring their continued development should inform capital investment priority decisions. It was conceived they would facilitate their functional areas to harness their local and regional potential and provide a framework for coordinating local and regional planning (for example, alignment of population targets with Gateways objectives, etc). They also have a role in strengthening the relationship between urban and rural areas, and promoting more sustainable forms of development. The Gateways, supported by nine designated Hubs (namely Cavan, Ennis, Kilkenny, Mallow, Monaghan, Tuam and Wexford, along with the linked hubs of Ballina-Castlebar and Tralee-Killarney) are intended to be the key drivers of the regional and national economy, albeit to different extents (see Figure 1).

Given their prescribed NSS role, and taking cognisance of investment under the European Union (EU) Co-Financed Regional Operational Programmes<sup>4</sup>, the GHDI 2012 study was primarily tasked with measuring and monitoring the economic and social performance of each Gateway and Hub.

The GHDI 2012 is an update and progression of the methodology used in the Gateway Development Index (GDI) 2009 (Fitzpatrick & Haase, 2009) - the original Index having been updated in the GHDI 2012 using data available to year-end 2012 and expanded to encompass analysis of designated Hub towns.

This paper sets out to describe and outline the Index as a methodological approach to understanding Ireland's Gateways and Hubs, and to advocate a greater application of a functional area approach to better inform an agenda of evidence-based policy-making. The findings of the Index are wide-ranging covering 18 urban areas, two geographical zones within each urban area and 20 variables (across 8 domains). It is not the authors' intention to examine all aspects and implications of the Index within the confines of this paper. Instead, the paper will describe the methodology used to define the economic reach of the designated Gateways and Hubs, and discuss some emerging key trends and their implications for policy.

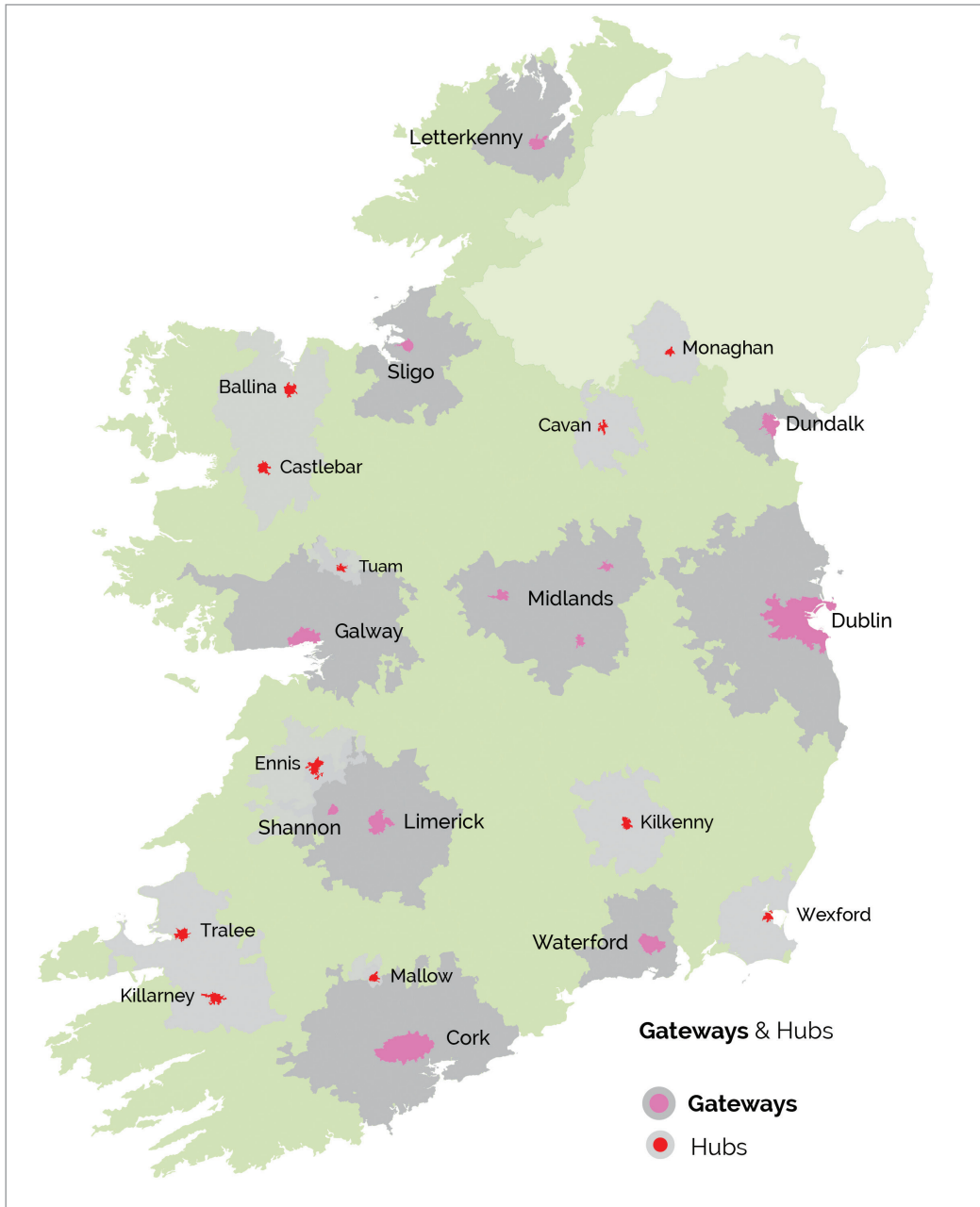
## Establishing Functional Areas and Economic Reach

A key finding of the Organisation for Economic Co-operation and Development (OECD) report, *Redefining "URBAN"* (2012), determines that

*monitoring urbanisation and comparing the performance of urban areas require new definitions based on economic function rather than administrative boundaries (p.18).*

Williams *et al* (2010) defines a Functional Urban Region (FUR) in terms of the space in which businesses operate and where they can access a wide range of infrastructure and services. Antikainen (2005), however, used a broader definition,

Figure 1: Gateways and Hubs in the NUTS II Border, Midland and Western Region and Southern and Eastern Region of Ireland



(Source: Border, Midland and Western Regional Assembly and Southern and Eastern Regional Assembly, 2013a)

Functional Urban Area (FUA) which includes the application of travel-to-work areas to define these functional areas. He notes that “in many international studies a commuting threshold of 15 – 20% is used to determine whether a municipality is attached to a particular centre or not” (2005:448) and hence defines the extent of the FUA.

The construction of the Index was informed by this need to look beyond the administrative boundary and reflect the economic reach of the respective areas.

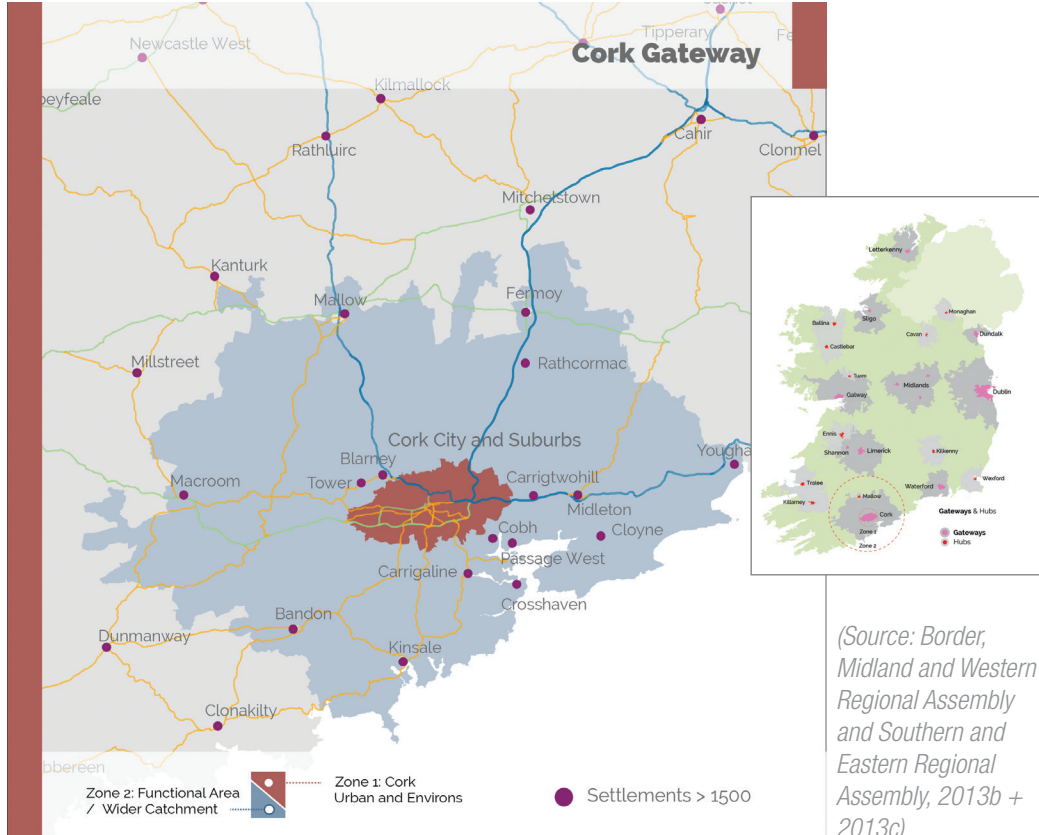
The resulting Index defines the wider catchment or functional area for both Gateways and Hubs as consisting of those District Electoral Divisions (DEDs) where in excess of 20% of the resident population in employment commutes to the urban

core to work (for the purpose of the GHDI the urban core is designated as Zone 1). By using travel-to-work statistics from the 2011 Census<sup>5</sup>, two ‘Zonal’ boundaries were determined. The zones are defined in such a manner that:

- Zone 1 reflects the urban cores, i.e. the relevant cities and towns and their environs as defined by the Central Statistics Office (CSO, 2011)<sup>6</sup>; and
- Zone 2 consists of the wider catchment or functional area (as defined above).

The establishment of the functional areas of Gateways and Hubs builds a clear picture of their respective economic reach (see Figure 2 depicting Zone 1 (pink) and Zone 2 (grey)).

**Figure 2: Functional Areas/Economic Reach Gateways and Hubs, and Cork Gateway Example<sup>7</sup>**



The functional areas established extend beyond administrative boundaries and in many cases, this has resulted in large parts of the surrounding rural hinterland also being included within the study area. This reflects the influence and economic reach of the Gateways and Hubs<sup>8</sup>. This is illustrated in Figure 2 by the example of the Cork Gateway. Zone 2 encompasses the most densely populated areas of County Cork, and includes most of the larger towns of the county including the Hub Town of Mallow.

### **Measuring Balanced Regional Development**

In order to achieve balanced regional development, it is imperative to develop an understanding of the role of designated growth areas. The GHDI 2012 represents a longitudinal composite socio-economic index across Ireland's primary urban functional areas designed to better inform decisions about their strategic direction. In this way, it can be utilised to inform and support the formulation and implementation of successor regional development policies.

While the GDI 2009 was originally conceived as a method of measuring quality of life (QoL), it became clear that the Index would be more meaningful by capturing a range of domains with QoL factors (Fitzpatrick & Haase, 2009). In addition, a perception survey of residents was conducted to complement the detailed domain analysis; an approach that reflects a growing consensus among policy-makers of the need to move beyond solely traditional macroeconomic indicators of progress in order to guide high quality, policy and business decisions. The emerging and increasing importance of QoL indicators as policy factors not only provide an insight into the question of social equity, but help determine the attractiveness of an area when it comes to location decisions of households and businesses. This is in tune with the EU Commission's *GDP and beyond: measuring progress in a changing world* which aims to complement Gross Domestic Product (GDP) with high level indicators reflecting issues such as environmental protection, quality of life and social cohesion (European Commission, 2009). At the EU level, the continued monitoring

of socio-economic performance is considered fundamental in order to identify lagging regions and for the development of policy and programmes that contribute to socio-economic convergence and that target inequality (European Commission, 2013).

### **Identifying Characteristics of Successful Gateways and Hubs**

In order to develop a robust evidence-based approach to any policy area, agreement is required on what determines successful outcome parameters. While the NSS itself identified preferred Gateway and Hub characteristics (see Table 1), the Strategy did not set out to measure progress (with the exception of population targets) towards these profiles (Department of Environment and Local Government, 2002). Figure 3 provides a useful insight into one of the defining characteristics of a Gateway, namely a population of greater than or equal to 100,000 persons. Taking a strictly functional area approach, Dundalk, Letterkenny, Sligo and Waterford do not fully meet this criterion. Does this mean that they should not be deemed Gateways? Do they not fulfil important roles for their wider regions? This starkly brings to light the need to have a greater understanding of our Gateways beyond a measure of population, notwithstanding its importance, and this is what the GHDI sets out to do.

It is broadly understood that successfully functioning urban areas should be attractive places to live, work, study and ultimately to invest in. While recognising that some areas retain an 'x-factor', an intangible attractiveness that can often not be captured by data analysis, and by examining a number of major international reports such as Blakeley (2004), Parkinson *et al* on behalf of the UK Office of the Deputy Prime Minister (2004), and Quality of Life in New Zealand Gateway Cities (2007), insights are gained into common threads of understanding what is specifically expected of successful urban growth centres.

This literature identified a broad consensus of the basic hard and soft ingredients of successful Gateways. Reviewing the literature from an Irish



perspective, Bartley and Walsh (2005) highlighted a number of common features necessary for a flourishing urban centre including:

1. Dynamic urban centres require a distinctive and performing city core;
2. The importance of environmental excellence;
3. The extent of the absorptive capacity of new knowledge from elsewhere;
4. Attractive physical settings and desirable social surroundings;
5. The importance of cultural capital and creativity/multiculturalism; and
6. The role of strategic autonomy and decision-making capacity in successful Gateways.

The initial scoping exercise in developing the parameters to construct the Index considered a range of Gateway development and quality of life studies. The review of the literature concluded that notwithstanding variations in terminology, there was a broad consensus on what comprised the essential elements of a successful Gateway (Fitzpatrick and Haase, 2009). Contingent on the consistency and availability of data, the GHDl's approach in measuring the success of the Gateways in the Irish regions attempts to determine the trends across similar features as posited by Bartley and Walsh and others.

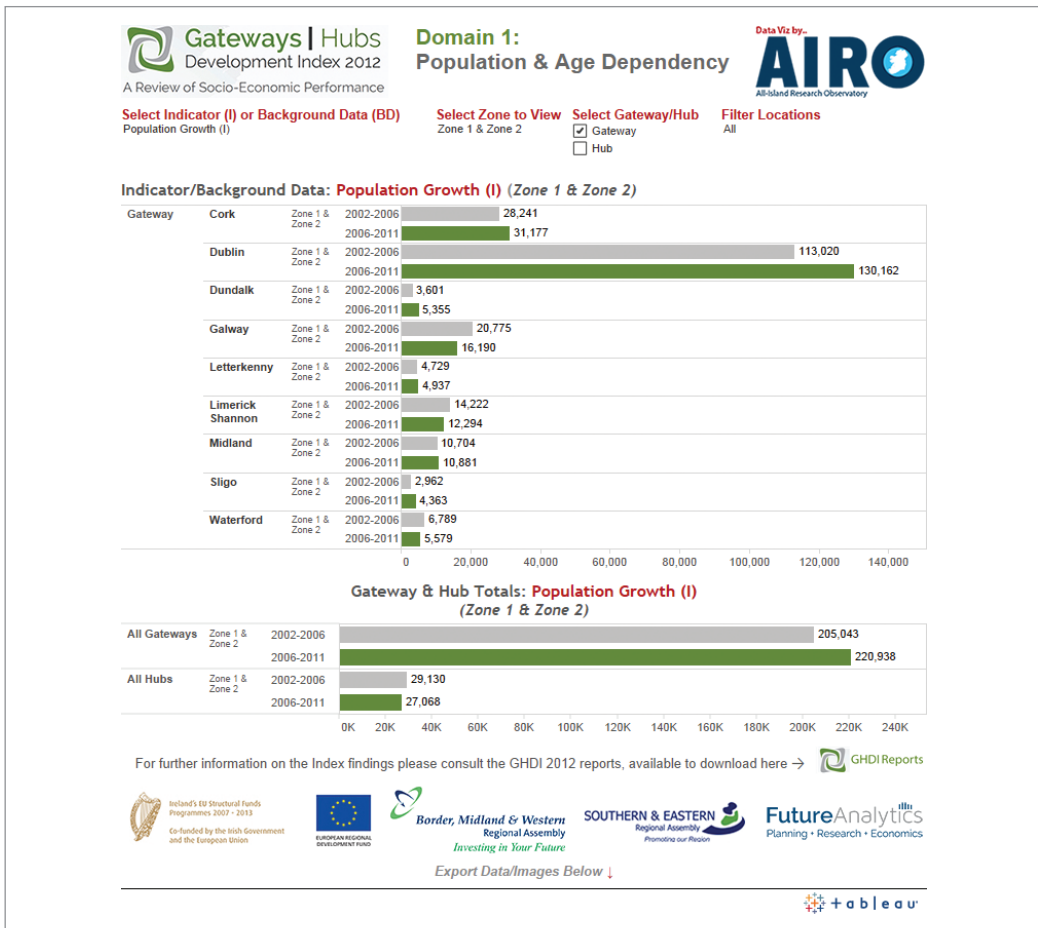
**Table 1: Preferred Gateway and Hub Characteristics, 2002**

Gateways	Hubs
(1) A large urban population ( $\geq 100,000$ ) set in a large urban and rural hinterland.	(1) A significant urban population in the range of 20,000 – 40,000 set in an associated rural hinterland.
(2) Wide ranges of primary/secondary education facilities and national or regional third level centres of learning.	(2) Primary and secondary education facilities with the option of third level or outreach facilities.
(3) Large clusters of national/international scale enterprises, including those involved in advanced sectors.	(3) A mix of local, medium-sized and large businesses serving local, regional and national/international markets.
(4) A focal point in transportation and communications: (a) on the national roads and rail networks; (b) within 1 hour of an airport either with international access or linking to one with such access; (c) adequate, reliable, cost effective and efficient access to port facilities; and (d) effective, competitive broadband access.	(4) An important local node in transportation and communications: (a) on the national road and rail or bus networks; (b) with access to a national or regional airport; (c) having adequate, reliable, cost effective and efficient access to port facilities; and (d) effective and competitive broadband access.
(5) Integrated public transport with facilities for pedestrians and cyclists.	(5) Effective local transport system with facilities for pedestrians and cyclists.
(6) Regional hospital/specialised care.	(6) Local and/or regional hospital.
(7) City level range of theatres, arts and sports centres and public spaces/parks. Cultural and entertainment quarters.	(7) Wide range of amenity, sporting and cultural facilities, including public spaces and parks.

Gateways	Hubs
(8) City-scale water and waste management services.	(8) Effective water services and waste management arrangements.
(9) Integrated land-use and transport planning frameworks.	(9) Strategies for physical, social and economic development.
(10) Phased zoning and servicing of land-banks in anticipation of needs associated with growth.	(10) Phased zoning and servicing of land-banks in anticipation of needs associated with growth.
(11) Strategic Development Zones.	(11) Industrial and local business parks.

(Source: Department of Environment and Local Government, 2002)

**Figure 3: Functional Areas by Population by Gateways and Zones - GHDI, 2012**



(Source: GHDI 2012 Data Hosted at All-Island Research Observatory, AIRO  
<http://airo.maynoothuniversity.ie/data-visualisations/gateway-hubs-development-index-2012/gateway-hubs-development-index-2012>)

## Establishing and Measuring a Gateway (and Hubs) Development Index

A key challenge in developing the GHDI was to ensure that it focused on the key characteristics identified (subject to change over time) and which were amenable to policy influence. Based on literature reviewed, a number of common domains were selected to form the framework for the Index. These included:

1. Population;
2. Enterprise and Employment;
3. Knowledge and Innovation;
4. Natural and Physical Environment;
5. Transport and Connectivity;
6. Health and Wellness;
7. Crime;
8. Affluence and Deprivation; and
9. Institutional Capacity.

While the latter point, institutional capacity (or governance), was highlighted as important in many studies, no robust means of measuring its performance in the Irish context was identified and therefore it was not incorporated into the

Index (Fitzpatrick and Haase, 2009). The Index has, as such, evolved since 2009 as a result of newly available data and the removal of a small number of indicators where data is no longer collected. The application of data sources and their availability at the relevant geographical level to fit into the functional areas established was also a key consideration.

## Scores and Findings from the Index

The resulting GHDI 2012 is so termed as the date for the final selection of data was determined to be the 31st of December 2012. The eight individual domains or thematic areas, upon which the Index is based, consist of a number of indicators (see Table 2). The 'Population' domain, for example, includes the 'Population Growth' indicator (i.e. the actual change in the number of residents within the defined area) and is supplemented by a second indicator, 'Age Vibrancy', which quantifies the number within the age cohorts of children 14 years or under and adults 65 years and older as a proportion of the total working-age population. The data is set against the two aforementioned geographical zones: Zone 1 (Urban Core) and Zone 2 (wider functional areas).

**Table 2: Indicators Informing the GHDI**

Domain	Indicator	Description
Population	Population Growth	<b>Actual change in the number of persons resident within the defined area.</b> This figure consists of the population of the CSO-defined urban cores of the Gateway/Hub (Zone 1), and the surrounding area where more than 20% of the resident population in employment commute to the Gateway/Hub (Zone 1) for the purposes of work (Zone 2)(derived from CSO POWSCAR, 2011).
	Age Vibrancy of Population	<b>The number of those within the age cohorts of children 14 years or under and adults 65 years and older, as a proportion of the total working population.</b> As regional growth leaders, Gateways should experience and attract inward migration of those of working age. Therefore increases in the core working age cohorts (here defined as the 15-64 age cohorts) will occur in successful Gateways/Hubs and can be identified by measuring changes in relative age dependency rates.



Domain	Indicator	Description
Enterprise and Employment	New Firm Formation	<b>The number of Value Added Tax (VAT) registrations by new firms per 1,000 of the labour force.</b> Gateways/ Hubs that are developing successfully should experience faster growth rates in new firm formations than the national average.
	Sectoral Base and Provision of Services	Analysis of the sectoral base, as an indicator of economic activity is informed by the quantity of services within all enterprises of the Gateway/Hub, and gives a valuable insight into the economic development of the Gateway/Hub. Results are presented as a <b>percentage of all services within the national economy which occur in this Gateway/Hub (the share of services in the economy), and compared with the percentage of the national population which is present within the Gateway/Hub.</b>  The quality of the sectoral base is calculated based on the share of services in the total number of companies using the NACE coding (an EU statistical classification) of businesses in the GeoDirectory 2012 (database of all Irish buildings and addresses).
	Unemployment Rate	This indicator relates to <b>the number of persons defined as 'Unemployed' within the Census 2006 and Census 2011 results.</b> Successfully performing/developing Gateways/ Hubs should experience a lower unemployment rate than the national average (in 2006 Ireland's national unemployment rate stood at 4.3%, increasing to nearly 19% in 2011).
Knowledge and Innovation	Labour Force Quality	This indicator <b>observes the proportion of the Gateway's/ Hub's labour force (within the 15 to 64 age cohorts) with a third level education,</b> thereby demonstrating the Gateway's/Hub's labour force capacity. A skilled and educated workforce is an important element for a successful Gateway/Hub, and an essential factor in attracting inward investment.
	Third Level R&D	This indicator quantifies <b>the amount of research and development (R&amp;D) financial support generated by third level institutions by Gateways;</b> it is expressed relative to the number of third level admissions within the Gateway. Successful Gateways will be drivers of innovation, knowledge creation and technology transfer and therefore should feature higher levels of funding for research and development projects.

Natural and Physical Environment	River Water Quality	This indicator measures <b>the average biological river water quality</b> . River water quality is one method which can be used to measure the level of pollution which may be present within each Gateway/Hub environment. Assessments of river water quality based on biological water quality criteria are primarily undertaken at a national level by the Environmental Protection Agency (EPA).
	Consumable Water Infrastructure	A successful Gateway/Hub should feature reliable water infrastructure for supply to residents and industry alike. This indicator uses <b>water source catchment data to express the proportion of the population in the relevant Gateway/Hub which occurs within the catchment areas of water sources on the EPA's Remedial Action List (RAL)</b> . The types of sources assessed in this manner include public water schemes, public group water schemes and private group water schemes originating from surface water, ground water and springs.  Water quality testing is carried out by the Water Services Authorities (WSA) using samples taken from various points on the distribution network for households and industry serviced by each water source. The results are reported to the EPA, with compliance assessed against the standards set out in the Drinking Water Regulations. Water sources are listed on the EPA RAL where the infrastructure does not meet the necessary standard or upgrades are required.
	Waste Recovery	This indicator <b>identifies the percentage of all household generated mixed municipal waste which is diverted from landfill for recycling or biological recovery</b> . Good waste management practice, as evidenced by a high percentage of waste diversion, will have positive environmental effects for all Gateways/Hubs and their surroundings, as well as functioning as a “test of local authority environmental management and responsibility” (Department of Environment and Local Government, 1998).
Transport and Connectivity	Green Transport Usage	This indicator is used to measure <b>the proportion of people who take advantage of the various sustainable transportation modes including public transport, walking and cycling available within the Gateway/ Hub</b> . Amongst the key features of a successful Gateway/ Hub will be a good quality public transport network, with a high proportion of utilisation amongst residents, and good pedestrian and cycle linkages, allowing for an adequate choice in transportation modes.

Domain	Indicator	Description
	Travel-to-Work Times	This indicator is based upon Census <b>respondents' personal experience of the duration of their journey to work</b> . A successful Gateway/Hub will feature a higher proportion of people who will live within 30 minutes of their place of work.
	Public Transport Availability (Pobal, 2006)	This indicator is used to assess <b>the availability of public transportation modes within the Gateway/Hub</b> . Accessibility and availability of public transport which facilitates ease of movement for residents of a Gateway/Hub is an important consideration.
	Retail Activity	This indicator <b>measures the number of retail outlets, expressing them per 100 households, within the Gateway/Hub</b> . The provision of essential retail services is an important function of a Gateway/Hub, and the resident population should thus have access to same. The retail sector plays a major role in attracting people to urban centres thus contributing to the overall economic vitality of those centres and supporting their role as centres of social and business interaction in the community (Department of Environment, Community & Local Government, 2012a). Given that the provision of essential retail services to the Gateway/Hub population is an important function of a successful Gateway/Hub, by investigating the quantity of retail business availability, a clear contribution to the determination of Gateway/Hub performance within the Transport and Connectivity domain can be derived. In general scores at or above the average for all Gateways/Hubs are satisfactory.
	IT Connectivity	This indicator quantifies <b>the percentage of households within the Gateway/Hub who have (and are utilising) private access to broadband (not including dial up internet access)</b> . A high proportion of broadband accessibility is an essential feature of a Gateway/Hub.

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Domain	Indicator	Description
Health and Wellness	Mortality	<p>This indicator is a measure of <b>premature mortality within a Gateway</b>, and can be used as a measure of the physical health of the population and the quality of life within a Gateway. Therefore a lower Years of Potential Life Lost (YPLL) score is an indication of a healthy Gateway population.</p> <p>Years of potential life lost (YPLL) is a mortality measure. It measures, per 1,000 people, the total number of years below the age of 79.6 (life expectancy for an Irish adult) that a 1,000 person group loses. For example, if a person dies before the age of 79.6 years, they contribute to this sum. If they die after this age, they do not contribute to this sum. The YPLL for each 1,000 group of people, averaged across counties in Ireland is between 21.95 and 95.00 (combining both 2006 and 2011 data). The national average for YPLL has reduced from 59.84 to 55.10 in the period 2006-2011. In terms of comparable EU and OECD equivalents the OECD average is 76.7 and 72.6 (2006-2011) and EU is 80.5 and 72.0 (2006-2011).</p>
	Birth weight	<p>This indicator measures <b>the average weight at birth of children born to parents from the Gateway</b>. The birth weight can be used to provide an accurate indication of the health and well being of mothers within the Gateway, with higher average birth weights seen as being indicative of a healthier population. Low birth weight is a public health concern, primarily because babies who are born with a low birth weight are at a greatly increased risk of death in the first week and the first year of life. Furthermore, low birth weight is associated with a number of adverse developmental, educational, behavioural and socio-economic outcomes in childhood, adolescence and later life (Institute of Public Health in Ireland, 2006). Low birth weight is typically considered to be those babies born weighing less than 2.5kgs.</p>
	Primary Health Care	<p>This indicator quantifies <b>the number of General Practitioners per 1,000 of the population within each Gateway/Hub</b>. This gives an indication of the relative access to primary healthcare for the residents of the Gateway/Hub, and can be used as an indication of the longer-term health of the population.</p>

Domain	Indicator	Description
Crime	Crime	This indicator quantifies <b>the number of crimes per 100 of the population</b> . It contains breakdowns in a number of crime categories. Crime data only includes reported crimes i.e. crimes that become known, or are reported to the Gardaí. Many crimes are not reported (CSO, 2011). Crime negatively affects economic and health systems at the national and regional levels. It has been identified as an impediment to foreign investment and a cause of 'capital flight' and 'brain drain' (UN Habitat, 2007).
Affluence and Deprivation	Affluence and Deprivation	This indicator <b>measures demographic growth, social class composition and labour market strength to compile a single score for affluence and deprivation</b> . The measurement of affluence and deprivation is an effective method of establishing the performance of Gateways/Hubs, with those featuring high levels of affluence viewed as being successful in comparison with those which feature high levels of deprivation. An in-depth overview of deprivation and affluence is available on the Pobal HP Deprivation Index (Haase and Pratschke, 2012).

(Source: Border, Midland and Western Regional Assembly & Southern and Eastern Regional Assembly, 2013b)

From these domain assessments, scores are calculated based on figures for the combined Gateway/Hub and are also presented for the individual zones. The domain level results for the GHDI 2012 are set out in Figures 4 and 5 for both Gateways and Hubs, illustrating the aggregate of Zone 1 and Zone 2 scores. The scoring is tabulated to bring the Gateways and Hubs average to 5.0; with any score above 5.0 meaning the domain is scoring above the national Gateway or Hub average and vice versa for scores below 5.0<sup>10</sup>. It is important to note that separate averages at their respective national levels are established for Gateways and Hubs given their different roles expressed in the NSS.

### Some Key Trends and Policy Implications

In 2013, the Department of Environment, Community and Local Government (DoECLG) announced their intention to undertake a full review of the NSS to be completed by the end of 2014 or early 2015<sup>11</sup>. The outcome of this review will have an important bearing on the future development of Ireland's

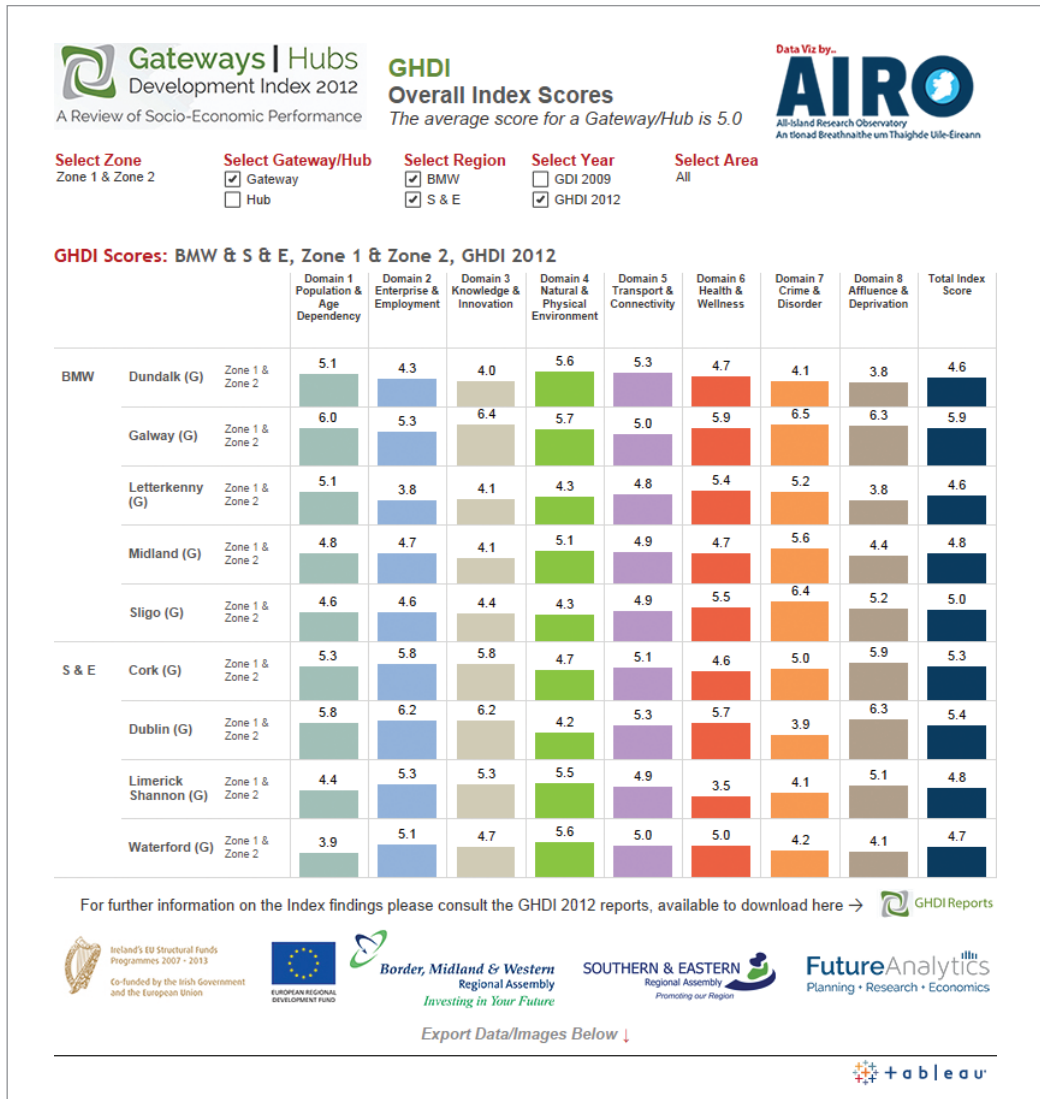
Gateways and Hubs, and will have implications which will inform Ireland's approach to regional development policy. The GHDI was developed in close cooperation with this Department among others<sup>12</sup>, and the findings from the associated reports will feed into the NSS review process. It is important to consider that while the cities and towns selected for analysis was on the basis of their designation under the NSS, the Index equally stands alone as a review of the performance of Ireland's primary urban centres and, therefore, has implications beyond the NSS review. These include:

#### **1. Taking a Functional Area Approach Better Enables Policy Analysis:**

The functional areas approach adopted in the GHDI 2012 is a methodological approach which gives key insights into the economic reach and the constituent socio-economic performance of the designated Gateway or Hubs being analysed. It seeks to respond to an identified analytical gap:



Figure 4: GHDI 2012 - Gateway Scores by Domain and Combined Zone 1 and Zone 2



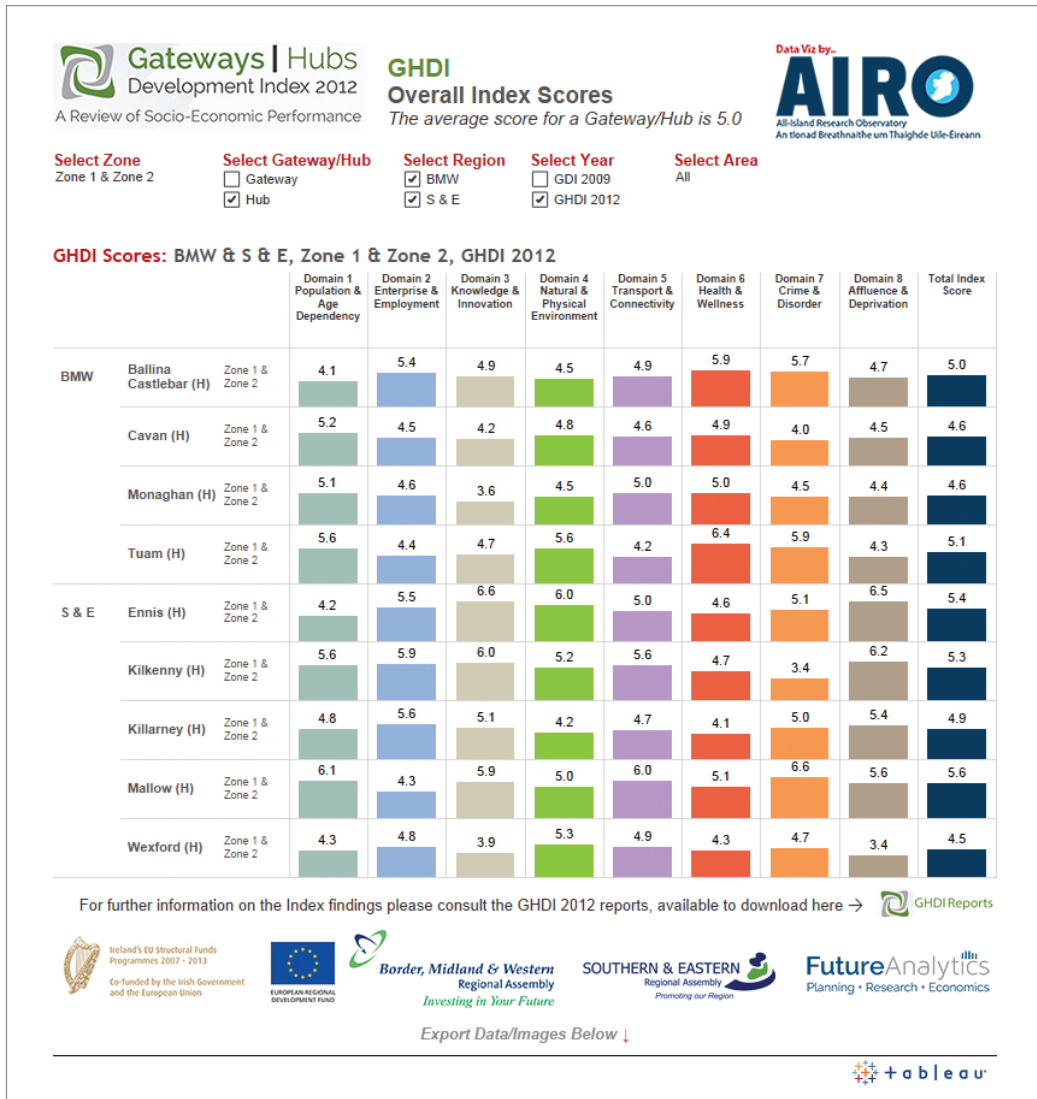
(Source: GHDI 2012 Data Hosted at All-Island Research Observatory, AIRO  
<http://airo.maynoothuniversity.ie/data-visualisations/gateway-hubs-development-index-2012/gateway-hubs-development-index-2012> )

it is clear from the analysis of population, housing and travel-to-work trends that existing administrative boundaries in Ireland often fail to reflect the reality of contemporary housing and labour markets, which operate at a regional scale and are characterised by complex intraregional

and urban-rural relationships (Williams et al, 2010: 11).

**2. Evidence of a Two-Tier Economy: Established Gateways v 'Newer' Gateways:** The overall Index scores (as highlighted in Figure 4) shows that Galway

Figure 5: GHDI 2012 - Hubs by Domain and Combined Zone 1 and Zone 2



(Source: GHDI 2012 Data Hosted at All-Island Research Observatory, AIRO  
<http://airo.maynoothuniversity.ie/data-visualisations/gateway-hubs-development-index-2012/gateway-hubs-development-index-2012>)

(5.9), Dublin (5.4) and Cork (5.3) are the only three Gateways that are performing above the average (while Sligo sits on the average, 5.0). While it might be expected that Dublin would be the highest scoring Gateway, this Index in taking account of quality of life factors and reflecting a beyond traditional economic

approach to the analysis, identifies weaknesses in the Dublin Gateway (and others) which lowers their overall result. Isolating the economic domains (i.e. Enterprise and Employment; and Knowledge and Innovation) shows that the three best performing Gateways are leading the way in these domains.

Dublin scores well above the Gateway average (6.2) in both domains, as do both Cork (5.8 in both domains) and Galway (5.3 and 6.4 respectively).

While this is not necessarily revealing new trends, it once again brings to the fore the cluster effects of economic activity which serves to reinforce regional output disparities. Regional output from 2011 (Central Statistics Office, 2014b) shows that the Greater Dublin Area (Dublin plus the Mid-East 48.7%) and the South-West (19.0%) accounted for 67.7% of total national output (the West which includes Galway, Mayo and Roscommon had the next largest output of Ireland's NUT III regions, accounting for 8.1% of output). Isolating the Dublin and South-West Regions further illustrates a productivity gap in the rest of Ireland whereby the combined output from these regions of 67.7% is produced with a 54.9% share of the State's labour force and is reflective of a higher added-value economic base (Central Statistics Office, 2014b). As the economy begins to recover, a significant divergence in the location of job creation is emerging. Between the second quarter of 2013 and the same period in 2014, Ireland has experienced employment growth nationally of 31,700 jobs; however, taken from a NUTS II perspective, only 300 of these jobs were created in the BMW region in this period (Central Statistics Office, 2014b) further reflecting the emerging two-tier economic pathway - with regions (and Gateways) being left behind.

Challenges exist for the relatively newly designated Gateways (all in the BMW Region); all of which with the exception of Sligo (5.0) are performing below the average GHDI score (5.0); i.e. Dundalk (4.6), Letterkenny (4.6) and the Midland Gateway (4.8). While these Gateways perform adequately in quality of life and environmental domains, they lag behind across the economic domains and the consequences of this are felt across the rate of unemployment and affluence and deprivation indicators in these three Gateways. In the S&E region, both Waterford and Limerick/Shannon perform below the national Gateway average across a number of domains despite experiencing relative improvements

across a number of domains. For example, high unemployment rates returned for Waterford (22.3%<sup>13</sup> compared to the national Gateway average of 19.9%) points to structural deficits in this Gateway when the trend is observed over time<sup>14</sup>.

**3. The Hubs Question:** The nine designated Hubs are comprised of medium to large towns or pairs of towns to "ensure that the positive effect of the Gateways in the regions would be extended to areas between the Gateways, and provide a link to rural parts of the region" (Department of Environment, Heritage and Local Government, 2007:3). In reality, there are three different types of functioning Hubs:

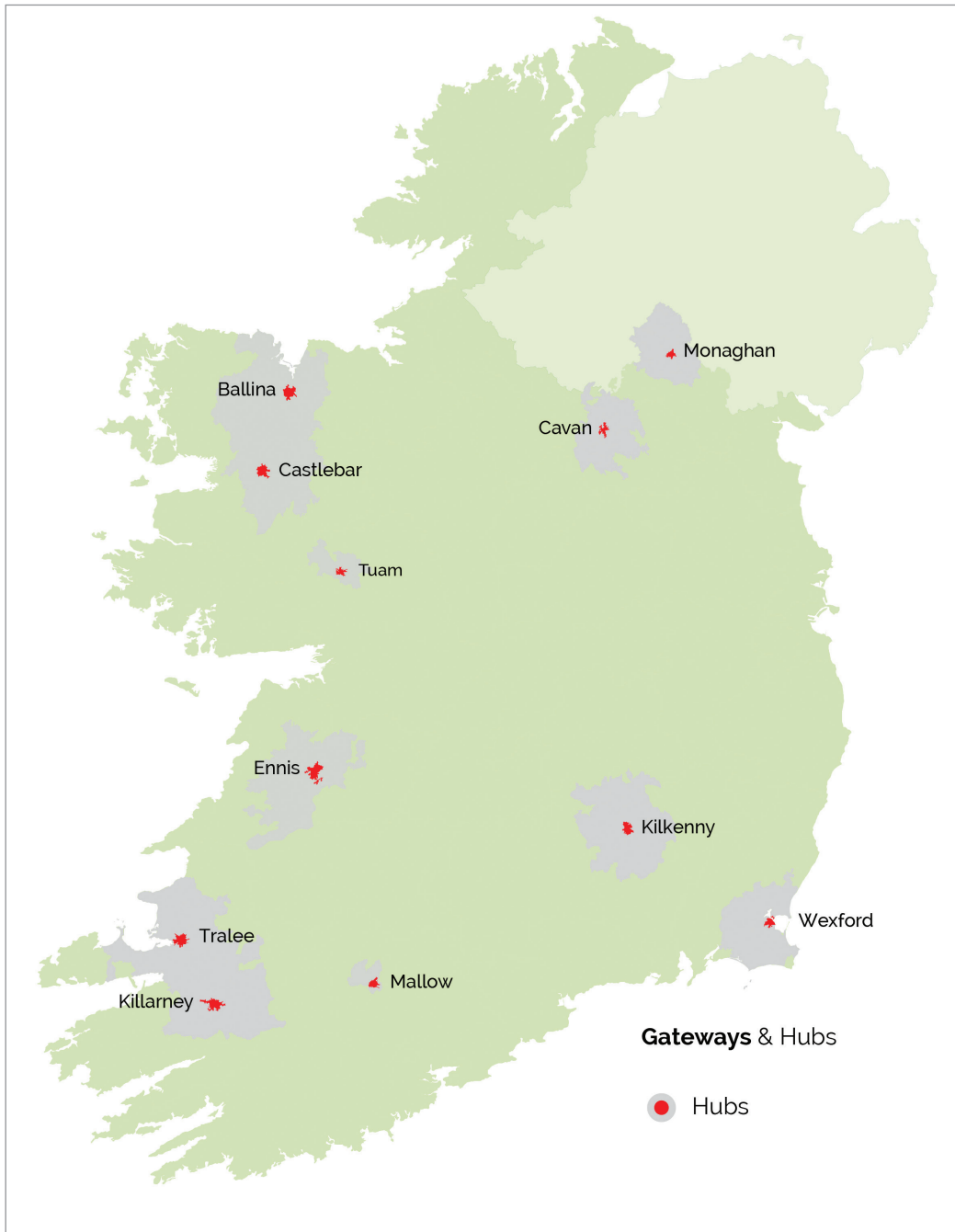
- The linked-Hubs (Castlebar/Ballina and Tralee/Killarney);
- The stand-alone Hubs (Cavan, Ennis, Kilkenny, Monaghan and Wexford); and
- Those Hubs which are subsumed as part of their nearby Gateway's functional areas (Tuam by Galway and Mallow by Cork).

The latter raises the question as to whether Tuam and Mallow are simply destinations from which residents interact with the dominant local Gateway given that the economic reach of these towns is relatively small (as illustrated in Figure 6) compared to the other Hubs. The role of Hubs, and the programmes to support their development, should be key considerations of the next generation of Ireland's regional policy. In this context, the socio-economic impact of other county towns on their immediate hinterland is also deserving of further analysis and prioritisation.

**4. Quality of Life and Environmental Factors Are Vital Components to Inform Location Decisions and Performance:**

Analysis of well-being or quality of life variables offers a depth to the results that speaks to the "whole of life" concept (Roberts, 2009: 438) as elaborated upon in the literature. Taking Sligo as an example, a low-crime rate contributes to a more positive outcome in terms of overall score. The modulating effect of a below average score for the 'Health and Wellness' domain for Killarney-

Figure 6: Functional Areas/Economic Reach of Designated Hubs, GHD 2012



(Source: Border, Midland and Western Regional Assembly and Southern and Eastern Regional Assembly, 2013a)

Tralee offsets gains the linked Hub enjoys under the 'Enterprise and Employment' domain. This more holistic appraisal highlights relative strengths and weaknesses, contributing to the body of evidence in tracking the overall sustainability of communities.

### **5. The Development of National and Regional Data Infrastructure and Harmonisation of Local Authority Data to Inform Policy and the Public Service Reform Plan:**

The process of developing and sourcing data for this Index identified gaps in the collection, storage and harmonisation of data. Further engagement with data providers and policy-makers led to a number of suggestions to overcome these prevailing gaps. Central to this was the proposition of the development of a National and Regional Data Infrastructure (now emerging as <http://data.gov.ie/>) comprising three pillars:

- People;
- Business; and
- Business and buildings (commercial and residential).

Each of these registered users could be organised around a single, unique identifier i.e. (i) Personal Public Service Numbers (PPSN) for person register, (ii) a unique business identifier (on the basis of business registers) and (iii) a unique spatial identifier (x and y coordinates). By making it mandatory to apply these unique identifiers when interacting with the public authorities (national and local), regional and local level data could be compiled regularly and at relatively little cost. This would also be necessary to inform the delivery of the Public Service Reform Plan (Department of Public Expenditure and Reform, 2011). This presents a distinct opportunity to agree a set of core Local Authority data-sets (potentially in both Ireland and Northern Ireland) which would greatly enhance regional and local analysis through the sharing of common coding, classification and overall data structure. Adoption would enable more direct synergies through interaction among neighbouring and bordering Local Authorities across a range of disciplines.

### **6. Border Dynamics**

One of the challenges of this Index was the ability to factor in the 'Border Effect' on the performance of the Gateways and Hubs in the Irish border region and, in particular, the implications for the linked Gateway of Letterkenny-(London)Derry. The research explored extending the Index to include relevant impacts from Northern Ireland but, unfortunately, due to the lack of homogenous data collection at both the administrative and statistical levels this was not fully possible. What is clear from the findings of the Index is that the Gateways of Letterkenny and Dundalk, along with the Hub towns of Cavan and Monaghan, are all performing below the national average. A consistent level of under-performance across the border region requires greater analysis to include Northern Ireland which was, however, beyond the scope of this study.

### **Conclusion**

The GHDI 2012 represents an overview of the performance and progression of Ireland's primary urban centres and economic drivers; and offers a contribution to the policy debate on the development of Ireland's regions. It is imperative to continue to monitor, evaluate and re-think the role of place-making in order to achieve a more balanced approach to formulating policy so as to enable regions to reach their potential. If the different speeds of economic and social recovery and development across regions are to be redressed, it is essential that policy-makers embrace a collaborative and interdependent attitude towards achieving this balance. A good starting place is the development and valorising of place-making or place shaping policies:

*place-making, or place-shaping is about improving the economic competitiveness, physical infrastructure and social fabric of a city, region or country, in order to increase its appeal as a place to live, work, study, invest in, buy from and visit (Place-making Toolkit for European Cities, see <http://www.yellowrailroad.com/>)*

The potential to harness the strength of the power



of place in moving towards a more balanced approach to development will be facilitated through the realisation of the aims of the local and regional government reform agenda (Department of Environment, Community and Local Government, 2012b).

Traditionally, Ireland was characterised as a country with weak local government and no coherent regional government (Hooghe and Marks, 2001:197). The reforms proposed under *Putting People First* aim to strengthen the socio-economic role of local and regional government. A re-orientation of public services to deliver on a vibrant local democracy is required to facilitate local government assuming a leading role in innovation and economic development (Breathnach, 2012). Therefore, the continued pursuance of balanced regional development and the advancement of designated areas to drive regional growth (such as Gateways and Hubs) must be an integral part of national economic policy deliberations.

Yet, sub-national levels of government investment declined significantly in Ireland over the period of the economic crisis (European Commission, 2014:142). The European Commission's Sixth Cohesion Report expands on the economic literature that evidences the importance of public investment as an economic stimulus (European Commission, 2014:141). The OECD sets out some preconditions to ensure a sound framework for public investment at all levels of government including regional government:

- *“Develop a fiscal framework adapted to the investment objectives pursued.*
- *Require sound, transparent financial management.*
- *Encourage transparency and strategic use of public procurement at all levels of government” (OECD, 2014:10-11<sup>15</sup>).*

The recent economic crisis, in line with the findings of the ESPON (European Observatory Network for Territorial Development and Cohesion) study on second tier cities (ESPON, 2013) continues to raise

questions in the Irish context as to the Gateways contribution not alone to national but regional competitiveness. To this end, further research is required to determine the effectiveness of policies for enabling growth and harnessing the Gateways (and Hubs) and regions potential.

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Note: The opinions expressed are those of the authors and not of the Regional Assemblies they represent. From 2015 the Southern and Eastern Regional Assembly will become the Southern Regional Assembly while the Border, Midland and Western Regional Assembly will change to the Northern and Western Regional Assembly. A third Assembly (Midlands and Eastern Regional Assembly) will be created to be cover the Greater Dublin Area and Midland’s counties. The Assemblies will have the additional responsibility for Regional Spatial and Economic Strategies as part of changes under reforms to local and regional government.

## Endnotes

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1. Under the Irish *National Spatial Strategy (NSS)*, the development of a network of nine Gateways is identified as key to stimulating growth in their respective regions, while nine strategically located, medium-sized Hubs were designated with the task of driving development in their catchments - linking out to rural areas - while also supporting the activities of the Gateways.
2. The Nomenclature of Territorial Units for Statistics otherwise known as NUTS, (for the French *nomenclature d'unités territoriales statistiques*), is a geocode standard for referencing the administrative divisions of countries for statistical purposes. There are three levels of NUTS regions in the case of Ireland: NUTS I represents all of the Republic of Ireland, NUTS II Regions are divided between the BMW Region (13 counties) and the Southern and Eastern Region (13 counties) and there are eight NUTS III regions covering the following individual regions - Border, Midland, Western, South-West, South-East, Mid-East, Mid-West and Dublin.
3. The series of 11 reports are available to download at: [www.bmwassembly.ie/Gateways%20and%20Hubs%20Report/index.html](http://www.bmwassembly.ie/Gateways%20and%20Hubs%20Report/index.html) [www.seregassembly.ie/en/info/gateways\\_hubs](http://www.seregassembly.ie/en/info/gateways_hubs). Data Visualisation is available at <http://airo.maynoothuniversity.ie/data-visualisations/gateway-hubs-development-index-2012>
4. Investment occurred across a broad range of projects co-financed by various EU funds under the 2000-2006 Regional Programmes and under the European Regional Development Fund (ERDF) for the 2007-2013 programming period in both Irish Regional Programmes. A number of flagship projects were co-financed under the Gateways and Hubs Development Fund in the BMW Region (see: <http://www.bmwassembly.ie/gateways/about.html>) and the ERDF Gateways Grant Scheme in the S&E Region (see: [http://www.seregassembly.ie/en/newsroom/details/erdf\\_gateway\\_scheme\\_projects](http://www.seregassembly.ie/en/newsroom/details/erdf_gateway_scheme_projects)), under the Regional Operational Programmes 2007- 2013.
5. Central Statistics Office (CSO) Place of Work, School or College Census of Anonymised Records (POWSCAR). Although the Gateway boundaries were defined from POWSCAR data, for the purposes of this analysis data for travel-to-schools and colleges was not utilised; instead this represents travel-to-work data. This replicates the approach taken in the GDI 2009.
6. <http://www.cso.ie/en/census/census2011boundaryfiles/>
7. The mapping exercise to determine the Zone 2 area is derived from the Central Statistics Office (CSO) Place of Work, School or College Census of Anonymised Records (POWSCAR) which in turn uses data from Census 2011. However, the GHDI is updated on an inter-censal basis and it utilises data, where available, to end December 2012.
8. The CSO derived boundaries of cities/towns (Zone 1) will not always capture the full extent of the influence of the Gateway/Hub as there are instances where a number of large employment nodes are located outside of the defined Zone 1 boundaries e.g., Dublin Airport and Shannon Industrial Zone. While CSO POWSCAR data is used in the Index to ensure and enable consistency of analysis across all Gateways and Hubs, such anomalies do arise.

9. The perception study in 2012 involved a common survey across the nine Gateways, using on-street interviews with a random sample of the adult resident population in each Gateway. All survey interviewing was conducted in October 2012. The research sample included the main urban zones of each Gateway as well as those areas in close connectivity with each urban zone. Importantly, the survey fieldwork was structured so that the sample in each Gateway is as representative as possible of residents at each location. In each Gateway interviewing was spread across at least one full week and was structured so that each day of the week and each time of day were represented in the survey. Over 250 interviews were conducted in each Gateway, with over 2,300 interviews being conducted in total across the full nine Gateways. The statistical margin of error on a sample size of 2,300 is just +/- 2%; the margin of error on a sample of 250 is +/-6.2% and +/- 0.62 on the 10 point scales. In this survey, any measure for an individual Gateway that is within 6% of the survey average is considered to be 'at the Gateway Average'. The survey questionnaire asked Gateway residents to comment across a range of questions, a number which mirror the domains and others that attempt to elicit the residence awareness or their opinion of the quality of life within the Gateway.
10. Each indicator was normalised to a scale that made comparisons possible. For example in general a Gateway's Population Growth can't be equated to its crime levels. In order to facilitate comparisons between these figures they are normalised to a range of -2 +2 based on the max/min across all Gateways. This way the user can see that any positive deviation from 0 is greater than the average. By contrast, any subtraction from 0 constitutes a below average score. This, in effect, is the first building block in creating the composite index and provides a method of comparing unlike datasets.
11. This announcement was made by Minister for the Environment, Community and Local Government, Phil Hogan T.D, at the Regional Studies Association 'New Regional Governance in Ireland' Conference held on 21st January 2013.
12. The Steering Committee of the GHDI was comprised of representatives from the Department of the Environment, Community and Local Government, the Department of An Taoiseach, the Department of Public Expenditure and Reform and the County and City Managers' Association, in addition to representatives from the Regional Assemblies.
13. Waterford Gateway unemployment rate returned in 2011.
14. <http://www.cso.ie/en/newsandevents/pressreleases/2012pressreleases/pressreleasethisisireland-highlightsfromcensus2011part2/> (The Waterford City and suburbs settlement areas referred to in the CSO press release do not coincide with Waterford Gateway boundaries).
15. The Recommendation was developed by the OECD Territorial Development Policy Committee (TDPC). It was submitted to an extensive consultation procedure within the OECD and externally, and was supported by Ministers at the TDPC Ministerial meeting on 5-6 December 2013 in Marseille.

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