

# Fitzpatrick Associates



Ireland's EU Structural Funds  
Programmes 2007 - 2013

Co-funded by the Irish Government  
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EUROPEAN REGIONAL  
DEVELOPMENT FUND

## Preparation of a Gateway Development Index

## Report on Stages 1, 2

February 2009



*Border, Midland & Western*  
Regional Assembly

*Investing in Your Future*



**SOUTHERN & EASTERN**  
Regional Assembly

*Promoting our Region*



**Fitzpatrick  
Associates**  
ECONOMIC CONSULTANTS



Comhshaoil, Oldheacht agus Rialtas Áitiúil  
Environment, Heritage and Local Government





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**Trutz Haase**

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Comhshaoil, Oldhrecht agus Rialtas Áitiúil  
Environment, Heritage and Local Government



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## LIST OF ABBREVIATIONS USED

BMW	Border, Midland and Western (Region)
CSO	Central Statistics Office
EPA	Environmental Protection Agency
ERDF	European Regional Development Fund
EU	European Union
EU-SILC	EU Survey of Income and Living Conditions
GDI	Gateway Development Index
GHOCTs	Gateways, Hubs and Other County Towns
HEA	Higher Education Authority
HIPE	Hospital In-Patient Enquiry Scheme
HIU	Health Information Unit
HSE	Health Service Executive
INSPIRE	Infrastructure for Spatial Information in Europe
ISDI	Irish Spatial Data Infrastructure (Working Group)
LUTS	Land Use and Transportation (Plans)
NDP	National Development Plan
NESC	National Economic and Social Council
NIDD	National Intellectual Disability Database
NPSDD	National Physical and Sensory Disability Database
NSS	National Spatial Strategy
OP	Operational Programme
QNHS	Quarterly National Household Survey
POWCAR	Place of Work - Census of Anonymised Records
QoL	Quality of Life
S&E	Southern and Eastern (Region)
SPU	Spatial Policy Unit
ToR	Terms of Reference
UNDP HDI	United Nations Development Program Human Development Index
WDC	Western Development Commission

# Introduction

This report has been prepared for the Border, Midland and Western and the Southern & Eastern Regional Assemblies by Fitzpatrick Associates, Economic Consultants and Trutz Haase, Social and Economic Consultant.

The report presents the outcome of the preparation and first calculation of a new “Gateway Development Index” for the nine National Spatial Strategy (NSS) Gateways. The Gateway Development Index (GDI) has been developed for the two Regional Assemblies and the Department of the Environment, Heritage and Local Government, and is intended to feed into the wide process of monitoring the implementation of the NSS as a whole.

This report and associated Appendices represents the output of Stages 1 and 2 of a planned medium-term process. Subsequent Stages are intended to re-calculate the index in 2010 and 2013, the mid- and end-points of the National Development Plan 2007-13. The status of the report and of the underlying work as **the first stage in a process** is a recurring theme of the subsequent sections of the report. In particular, it means that much of the content and focus, including the conclusions and recommendations, is of a technical rather than substantive policy nature.

This main report is structured as follows:

- Chapter 1 describes the project background, requirements, and challenges;
- Chapter 2 describes the overall approach, method and work programme;
- Chapter 3 presents the overall database arising from the project;
- Chapter 4 summarises (by Gateway) the findings from this initial run of the Index numbers;
- Chapter 5 presents project findings and conclusions.

There are two Annexes:

- Annex 1 presents the questionnaire and detailed results of an accompanying perception survey carried out in the Gateways as part of the work programme;
- Annex 2 contains a detailed matrix of the GDI data sources.

In addition two other project deliverables are being made available separately to the Assemblies:

- the underlying statistical data in spreadsheet form;
- a Technical Manual explaining the sources and use of the data.

# 1. Project Objectives and Requirements

## 1.1 Introduction

This Chapter sets out the objectives and requirements of the GDI project. Section 1.2 describes the national and regional policy context underlying it, Section 1.3 describes the wider EU context, Section 1.4 sets out the project Terms of Reference, and Section 1.5 describes the specific challenges generated by the project, Section 1.6 describes the project Steering Committee, which supported the work.

## 1.2 National and Regional Policy Context

The National Development Plan (NDP) 2007-13 sets out a framework for the promotion of regional development through investment in the Gateways/Hubs identified under the National Spatial Strategy (NSS) 2002-20. The NSS is the Government policy framework for regional development in Ireland. The main objective of the Strategy is to achieve more balanced and sustainable regional development, including the delivery of vibrant urban and rural areas and an improved environment. All agencies and authorities with responsibilities for planning or infrastructural programmes such as roads, water, rail and industrial development are required to build the requirements of the NSS into their plans, strategies and regulations.

Under the NSS, the development of a network of nine Gateways<sup>1</sup> is identified as key to stimulating growth in their respective regions, while strategically placed Hubs<sup>2</sup> are charged with driving development in their catchments while also supporting the activities of the Gateways. Given the strategic importance of the development and growth of the Gateway (and Hubs) to the overall success of the NSS, it is necessary to develop a National Spatial Strategy Monitoring System to examine if the aims and targets for these Gateways and Hubs are being met. The outcomes of this monitoring system for regional development will be reviewed at the Monitoring Committee meetings of the NDP.

A priority objective of the two Regional Operational Programmes 2007-13 is to focus investment in the designated Gateways and Hubs in order to strengthen their attractiveness, accessibility and competitiveness. This is consistent with the EU Community Strategic Guidelines 2007-13 which emphasise the contribution of urban growth centres to competitiveness and employment and recommend that integrated economic, social and environmental initiatives should be supported

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<sup>1</sup> BMW Region Gateways: Dundalk, Galway, Letterkenny, Sligo and the Midland Gateway of Athlone, Mullingar and Tullamore. S&E Region Gateways: Cork, Dublin, Limerick/Shannon and Waterford.

<sup>2</sup> BMW Region Hubs: Ballina/Castlebar, Cavan, Monaghan and Tuam. S&E Region Hubs: Ennis, Kilkenny, Mallow, Tralee/Killarney and Wexford.

under the ERDF co-financed programmes. A fundamental requirement for all co-financed programmes is that the results and impacts of the activities are amenable to monitoring and evaluation.

The NSS Unit of the Department of Environment, Heritage and Local Government in consultation with a wide range of interests including the Regional Authorities and Regional Assemblies, has developed an *NSS Monitoring System* which includes provision for both quantitative and qualitative indicators.

Under this monitoring system it was agreed that the Regional Assemblies would jointly manage delivery of a “Quality of Life” index (subsequently re-named by agreement to a “Gateway Development Index”) for the Gateways. By commissioning this study the Regional Assemblies would also help to fulfil their commitment to develop a suitable result indicator to track the impact of investment in Gateways and Hubs under the Urban Development Priorities of the BMW and S&E Regional Operational Programmes.

### **1.3 Wider EU Context**

At the European Union level, the continued monitoring of both economic and social performance of Member States is considered fundamental in order to identify lagging regions and develop policies and programs that will achieve socioeconomic convergence and target inequality. Improvement of national and regional quality of life is included among the principal objectives of the EU’s Sustainable Development Strategy. At the Barcelona Conference of EU Member States there was a call for the establishment of “a system of local and regional indicators of the quality of life to inform policy makers”.

There is also a growing consensus among policy makers regarding the need to move beyond traditional macroeconomic indicators of progress in order to guide high quality policy and business decisions. Central to this is the emerging and increasing importance of quality of life as a composite indicator, and the need for a precise and objective measure of it.

The study of the concept of Quality of Life is based on a fundamental assumption that the social and physical environment of an area can influence the well-being of people residing in an area. The development of an appropriate index for the Gateways and Hubs can therefore provide an opportunity to track the impact of investments in these areas. The ability to identify if investment strategies have been successful or have failed will in turn feed into the re-examination of existing and future policies and strategies.

## 1.4 Project Terms of Reference and Requirements

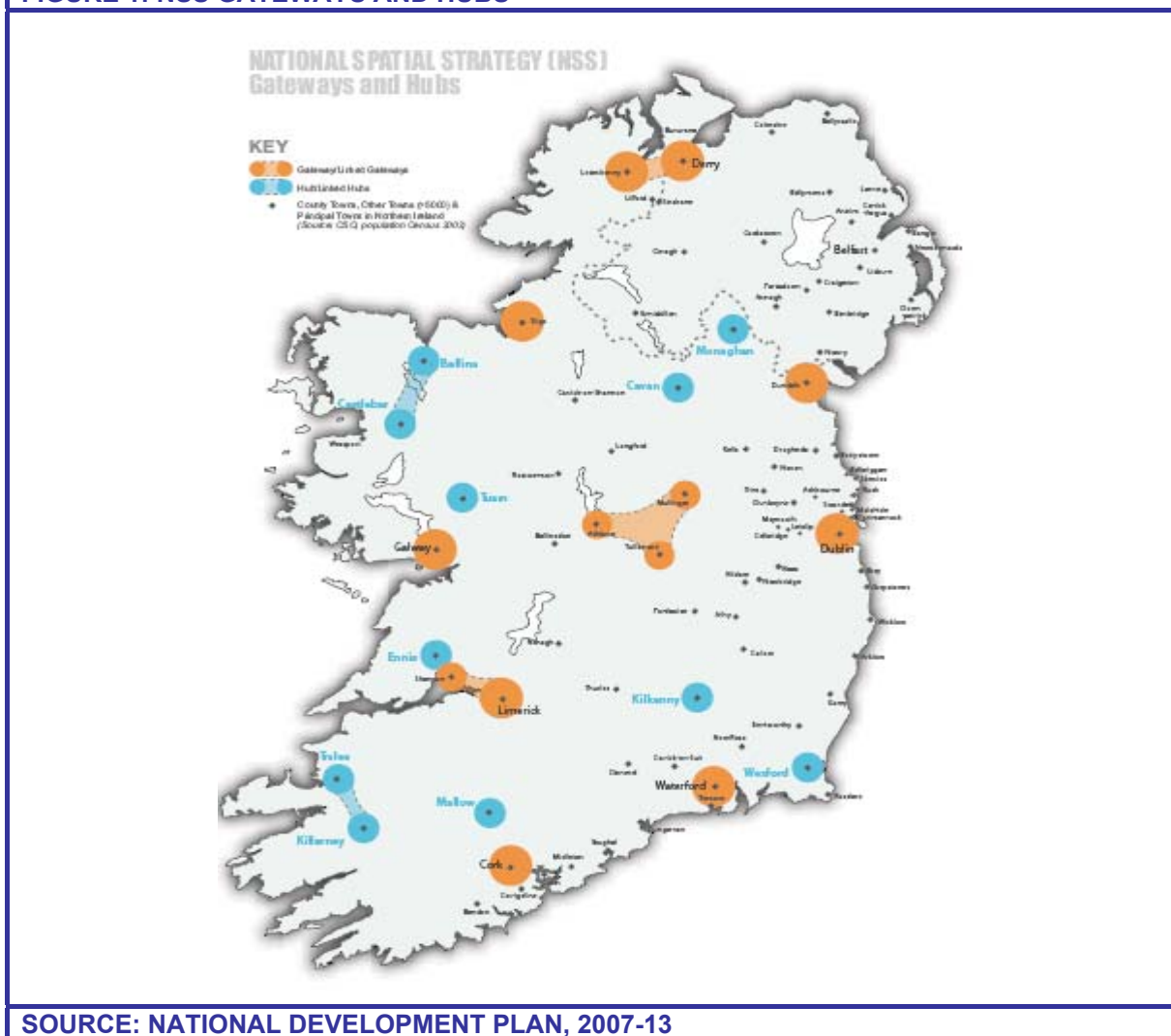
### 1.4.1 Overall Aims of the Project

Against the EU and national policy context summarised in Section 1.2, it was agreed to commission consultants to “to develop a suitable QoL Index applicable to the Gateways”. The objective of this investigation is to ensure that “the set of indicators chosen not only tracks changes and progress in an area, but also makes a significant contribution to the understanding of what policies are driving or failing progress”.

### 1.4.2 Context and Objectives

In February 2008, the Border Midland and Western and Southern and Eastern Regional Assemblies jointly issued a call for proposals to develop a Quality of Life Index for the nine designated NSS Gateway Cities (see Figure 1).

**FIGURE 1: NSS GATEWAYS AND HUBS**



As noted in Section 1.3, the decision to develop such an index was taken in the context of:

- growing consensus among policy makers – at regional, national, EU and international level – of the need to go beyond traditional macroeconomic indicators of progress to a more holistic approach to guiding high quality policy and business decisions;
- inclusion in both the new NDP and the Regional Operational Programmes (OPs) of investments to drive growth and development in the Gateway Cities as leaders of wider regional development;
- recognition in major national and regional policy documents – including the National Spatial Strategy, NESC Strategies, the National Development Plan (NDP), *Towards 2016* and the *Regional Operational Programmes 2007-13* – of the increasing importance of wider quality of life issues both in their own right and as key drivers of regional competitiveness.

The immediate geographic focus of the Index was the nine Gateway cities, including their hinterlands/functional areas. However, the Terms of Reference also indicated that the Index should also be potentially extendable to the NSS Hubs – a consideration taken into account in our subsequent approach and method.

### 1.4.3 Project Stages and Timetable

The Terms of Reference envisage an overall timeframe for the project running up to 2013, see Figure 2. This involves:

- initial construction of a framework and reporting template for the Index;
- population of this with existing and new data, and production of an initial report and Index in 2008;
- subsequent replication of this Index in 2010 and 2013.

The present project and report relate to the 2008 work only, i.e. Stages 1 and 2 (see Figure 2).

FIGURE 2: TIMETABLE FOR DELIVERY OF INDEX PROJECT FOR THE GATEWAYS		
Stage	Quality of Life (QoL) Index for the Gateways 2007-13 <sup>1</sup>	Target Dates
1	Construct a Framework and Reporting Template for a QoL Index for the Gateways	April-May 2008
2A	Populate Framework with Existing Quantitative Data	May-Autumn 2008
2B	Carry out a Perception Study of QoL in the Gateways	May-Autumn 2008
2C	Produce Final QoL Index for the Gateways	Autumn 2008
3	Mid-term QoL Index for the Gateways	2010
4	Final QoL Index for the Gateways	2013
<sup>1</sup> Quality of Life (QoL) subsequently changed to Gateway Development Index (GDI)		

The core requirement of the Terms of Reference was therefore to develop, operationalise and deliver a Quality of Life Index in 2008, and provide the basis for repeat calculations of the Index at two subsequent points, i.e. the mid-term and the end of the current NDP period 2007-13.

As described in subsequent sections the Index was subsequently, by agreement with the Assemblies and project Steering Committee, re-named a “**Gateway Development Index**” (GDI). This term was seen as a more appropriate reflection of their specific priorities for the project.

#### **1.4.4 Detailed Project Requirements**

Within the framework set out in Figure 2 above, the Terms of Reference also contained a series of specific requirements for the initial two Stages of the project (Stages 1 and 2). These requirements are shown in full in Figure 3. Our project method and work programme derived from these, and was designed to systematically address each of the detailed requirements.

The main difference between the ToR framework and detailed requirements as set out in Figures 2 and 3 and project implementation in practice has been that implementation was a more iterative process than the sequential stages initially envisaged. This reflected the fact that many aspects of the Stages were interlinked. In particular, definition of the detailed parameters of the Index (Stage 1) could not be divorced from actual data availability issues which emerged (Stage 2).

## **1.5 Project Challenges and Responses**

### **1.5.1 Project Challenges**

Responding to challenges of the project has necessitated addressing a series of specific and demanding core requirements, often involving trade-offs and choices. The specific challenges were the need:

- to define in practice the actual geographical boundaries of the “Gateways”, especially after early confirmation that LUTS areas – even where defined – could not be used;
- for a quantitative index for these areas, and the associated requirement for small area or geo-coded statistical data;
- for a common approach to the Index across the nine Gateway areas, plus the potential to subsequently extend this to the Hubs;
- to capture trends so as to monitor performance of individual Gateways over time, and being able to replicate the index in future years (2010, 2013), including in years when new Census of Population data will not be available;

### FIGURE 3: DETAILED REQUIREMENTS OF PROJECT, STAGES 1 AND 2

#### **STAGE 1: Construct a Framework and Reporting Template for a QoL Index for the Gateways**

##### **Identify Characteristics of Successful Gateways**

- a. Review the National Spatial Strategy, Regional Authorities Planning Guidelines and the Gateway Investment Priorities Study, along with any other relevant material to distinguish characteristics of a successful Gateway and in particular identify the economic, social, environmental, cultural and institutional factors that should be captured by this index; and
- b. Review the desired impact of planned investment in the Gateways by the BMW and S&E Regional Operational Programmes and the NDP 2007-2013.

##### **Complete a Literature Review of the Relevant Quality of Life Studies**

- a. Identify the most commonly examined Domains from the literature and those most relevant to meet the objectives of this study; and
- b. Identify the most appropriate methodology to deliver a QoL index for the Gateways and in doing so examine the constraints or obstacles to its application.

##### **Construct a Framework for a QoL Index for the Gateways**

- a. Identify and provide a justification for the most relevant indicators and areas of life that need to be distinguished and measured to meet the aims of this study. These should include hard, soft and qualitative indicators; and
- b. Identify existing data sources for each field.

##### **Identify the Type of Index which will applied to the Quality of Life Study**

- a. Identify and provide a justification for the type of index chosen to report the results of the QoL study i.e. Single Measure (Composite) Index or Component/Sub-Index or Non-Aggregated Index;
- b. Provide a detailed explanation of the allocation of weightings in the construction of this index; and
- c. Examine the methodological benefits and challenges of producing the chosen type of index and how it facilitates the communication of outcomes.

##### **Perception Study of Quality of Life in the Gateways**

- a. Outline an appropriate methodology for the collection of quality of life qualitative indicators by means of a perception study in each of the Gateway cities and towns. This should include specific proposals in relation to:
  - i. **Survey Design:** the size of the sample, the geographical area to be covered, the method of sampling and the statistical population;
  - ii. **Questionnaire:** the subject areas that the questionnaire will examine;
  - iii. **Survey Implementation:** the method of surveying, interview techniques and technology to be used, measures to ensure that the survey rates are as high as possible and quality control procedures.

#### **STAGE 2A: Populate QoL Framework with Existing Quantitative Data**

##### **Quantitative Indicators**

- a. Populate QoL framework with up-to-date quantitative data as set out in Stage 1.

#### **STAGE 2B: Carry Out a Perception Study of the QoL in the Gateways**

##### **Perception Study**

- a. Complete a perception study of the QoL in the Gateways as set out in Stage 1.

#### **STAGE 2C: Produce the Final QoL Index and Report for the Gateways**

##### **Final Report**

- a. The final Report should be completed within the time frame set out in Table 1.

**SOURCE: PROJECT TERMS OF REFERENCE**

- to assemble the base-line indicators for c.2008;
- to avoid overlap with the planned NSS Monitoring System;
- to contribute to monitoring NDP and Regional OP investment impact.

Our detailed response to these challenges is described in Chapter 2. Broadly it has been to work closely with the project Steering Committee in discussing issues and deciding on approaches to them, retaining a focus on the overall objective of systematically monitoring Gateway development over time, emphasising quality data sources to lay the foundations for a robust and sustainable approach with avoidance of overly ad hoc or short-term data solutions, and being flexible in overcoming difficulties – including unanticipated ones – that arose during the process.

This latter element of unanticipated difficulties included carrying out various tasks which were not originally understood as being required. Significant among these were a substantive process of defining (for the first time) geographical boundaries for the Gateway cores and functional areas, extensive proactive pursuit of public service sources of small area/geo-coded data, and populating the Index framework with historical as well as current data.

## 1.6 Project Steering Committee

The project was overseen by a Steering Committee made up of the two Regional Assemblies as co-clients, together with the Department of the Environment, Heritage and Local Government (Spatial Policy Unit). The Committee was Chaired and the Secretariat provided by the BMW Regional Assembly, which also acted as the formal client for the project.<sup>3</sup>

The role of the Committee was to steer, guide and oversee the work, and in particular to approve significant decisions and choices that were necessary at key milestones during the process. These are described in Chapter 2. The Committee met on eight occasions during the project.<sup>4</sup>

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<sup>3</sup>Core membership of the Committee consisted of Gerry Finn, BMW Regional Assembly (Chair); Adrian O'Donoghue, BMW Regional Assembly (Secretary); Derville Brennan, Southern & Eastern Regional Assembly; Niall Cussen, Bruce McCormack and Patrick O'Sullivan of the Spatial Policy Unit. Additional attendees at some meetings were Stephen Blair, S&E Regional Assembly; Kieran Moylan, BMW Regional Assembly; and David Walsh, Spatial Policy Unit.

<sup>4</sup> The Committee met on the following dates: 26<sup>th</sup> March 2008; 14<sup>th</sup> April 2008; 16<sup>th</sup> May 2008; 16<sup>th</sup> June 2008; 4<sup>th</sup> July 2008; 15<sup>th</sup> September 2008; 10<sup>th</sup> November 2008; 8<sup>th</sup> December 2008.

## **2. Overall Approach, Method and Work Programme**

### **2.1 Introduction**

The purpose of this Chapter is to set out how as the project consultants we responded to the requirements in terms of overall approach, methodology and work programme. The Chapter also highlights some of the key decisions regarding the project taken by agreement during the preparatory process, and the implications of these for the resulting database and index.

Section 2.2 describes the overall work programme, Sections 2.3 and 2.4 describe our response to the specific requirements of the ToR Stages 1 and 2 respectively (the two Stages covered by this report). Section 2.5 summarises a series of important parameters of the project and resulting Index which emanated from the research Stages.

### **2.2 Overall Work Programme**

In terms of the overall structure of the Work Programme, we followed that set out in the Terms of Reference, see Chapter 1 (Figure 2). This involved:

- construction of a framework and reporting template for the Index;
- population of this with existing quantitative data;
- the carrying out of a perception survey in the Gateways;
- generation of the Index and the present report.

The main departures from the structure envisaged in the Terms of Reference were two-fold. First, in practice the pre-defined stages involved a series of iterative rather than sequential tasks. For example, final decisions about the construction of the framework and reporting template could not be taken until the project was clear about the availability of data. Second, some “sub-Stages” not initially evident emerged as significant tasks in their own right, most notably geographical definition of Gateway zones and work necessary to gain access to relevant public databases.

The content of each of the work Stages is summarised below, using the detailed requirements of the Terms of Reference (see Figure 3) as subheadings.

## 2.3 Stage 1: Construct a Framework and Reporting Template

### 2.3.1 Identify Characteristics of Successful Gateways

This element of the research asked that basic documents, including the National Spatial Strategy<sup>5</sup> and Regional Planning Guidelines and the Gateways Investment Priorities<sup>6</sup> study be examined, along with other relevant materials. It also asked for an examination of the planned investment under the Regional Operational Programmes.<sup>7</sup> In addition, as part of this module, we also examined literature on the characteristics of successful Gateways, including of course the NSS itself (see Figure 4).

Other studies examined included major international reports such as Blakeley 2004,<sup>8</sup> the UK Office of the Deputy Prime Minister 2004<sup>9</sup>, and Quality of Life in New Zealand Gateway Cities<sup>10</sup>. This literature identified a broad consensus, notwithstanding different terminology and different characterisation, of the basic hard and soft ingredients of successful gateways. Reviewing the literature from an Irish perspective Walsh (2005) highlighted a number of features including:

- the role of strategic autonomy and decision-making capacity in successful gateways;
- the importance of cultural capital and creativity/multi-culturalism;
- the fact that dynamic urban centres require a distinctive city core;
- the importance of environmental excellence;
- absorptive capacity of new knowledge from elsewhere;
- attractive physical settings and desirable social surroundings.

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<sup>5</sup> Department of the Environment, Heritage and Local Government, *Proposed National Spatial Strategy Monitoring System*, March 2008.

<sup>6</sup> Department of the Environment, Heritage and Local Government/Forfás, *Implementing the NSS: Gateway Investment Priorities Study*, Fitzpatrick Associates, 2006.

<sup>7</sup> BMW Regional Assembly, Operational Programme 2007-13; S&E Regional Assembly, Operational Programme 2007-13, *Supporting and Enabling Dynamic Regions*.

<sup>8</sup> Blakeley, E.J., *Regional Science Cyclops – From a one eye to a two eyed view of a changing regional science world*. Keynote address University of Sydney, Australia, 2004.

<sup>9</sup> Parkinson, M., Hutchins, M., Simmie, J., Clark, G., and Verdonk, H., *Competitive European Cities: Where do the Core Cities Stand?* Office of the Deputy Prime Minister, London, 2004.

<sup>10</sup> Quality of Life Project, *Quality of Life '07 in Twelve of New Zealand's Cities*, 2007.

FIGURE 4: CHARACTERISTICS OF NSS GATEWAYS AND HUBS

<b>Figure 3.1</b> Gateways and Hubs - Characteristics	
Gateways	Hubs
(1) A large urban population (of the order of 100,000 and above) 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 larger businesses serving local, regional and national/international markets.
(4) A focal point in transportation and communications terms: (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 (d) effective, competitive broadband access.	(4) An important local node in transportation and communication terms: (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 (d) with 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.
(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: NATIONAL SPATIAL STRATEGY 2002-2020, PEOPLE, PLACES AND POTENTIAL

Significantly, however, none of the reports reviewed went so far to develop a formal statistical “index” of Gateway location’s quality or performance based on such categories.<sup>11</sup> A further challenge in developing an index is that it must focus on characteristics which can change over time and which are amenable to policy influence. Some natural characteristics of Gateways such as their overall physical setting are relatively static, albeit that the quality of these could be damaged or enhanced over time.

### 2.3.2 Review of Relevant Quality of Life Studies

Reflecting its initial Quality of Life focus, the Terms of Reference asked that we review the QoL literature in order to identify the most commonly examined Domains and those most relevant to meet the objectives of the current study. Various Irish and international material were examined.<sup>12</sup> A number of the key findings are set out below:

- while there is a broad consensus about the general nature and some of the key elements in measurement of Quality of Life, there is no consensus on the detailed contents of either indicators or indices. Existing attempts to measure quality of life range in practice from very simple indices with a small number of constituent indicators (e.g. the UNDP Human Development Index) to more complex and multi-dimensional indices, such as the “Calvert-Henderson” approach in the US, and the “Eurolife” approach of the European Foundation;
- many of the attempts to measure quality of life, particularly below national level as is the aim here, stop well short of calculation of an actual Index. Both a New Zealand project to measure quality of life in its major cities and UK district council-level measurement remain at a more descriptive indicator-by-indicator or Domain-by-Domain level. Reasons for this include the fact that information included in quality of life measurement involves “apples and oranges”, e.g. both factual data and perception information, and information about both people and about places;

<sup>11</sup> An exception is M. Keane, *Beyond Gateways: Towns and Regional Development*, Paper to WDC Regional Policy Conference, 23<sup>rd</sup> May 2008.

<sup>12</sup> c.f. <http://www.calvert-henderson.com/index.htm>;

Fahy, T., Nolan, B., and Whelan, C., *Monitoring Quality of Life in Ireland*, European Foundation for the Improvement of Living and Working Conditions, Luxembourg Office for Official Publications of the European Communities, 2003;

*Quality of Life '07 in Twelve of New Zealand's Cities*, Quality of Life Project, 2007;

Leicestershire County Council, *2006 Leicestershire Quality of Life Indicators*, Leicestershire County Council, The Audit Commission, 2006. *Local Quality of Life Indicators – Supporting Local Communities to Become Sustainable: A Guide to Local Monitoring to Complement the Indicators in the UK Government Sustainable Development Strategy*: Office of the Deputy Prime Minister/Audit Commission/DEFRA/Local Government Association;

Red C, East:West Research, December 2007, prepared for WDC;

Mercer, *Quality of Life Survey 2007*, [www.mercer.com](http://www.mercer.com);

CSO, *Regional Quality of Life*, May 2008.

- most of the QoL Indices that have been developed are designed for use at national level, and include indicators which are only meaningful at that level, e.g. life expectancy, infant mortality and human rights;
- the present project also has more specific objectives than many of the other quality of life measurement exercises occurring internationally and in Ireland. The aim of using a QoL Index to monitor the impact of public investment is a quite specific one.

As with the features of a successful Gateway, this literature therefore identified a commonality about quality of life studies and indices. It also identified some similarities, at a high level, between this and the key features of successful Gateways, see Figure 5.

### 2.3.3 Construct a Framework for the Quality of Life Index for the Gateways

Here the Terms of Reference asked us to identify and provide justification for the most relevant indicators that need to be distinguished and measured to meet the aims of the study, including quantitative and qualitative indicators, and also to identify existing sources for each field.

**FIGURE 5: TYPICAL DOMAINS IDENTIFIED IN GATEWAY DEVELOPMENT AND QoL STUDIES**

Blakeley (2004)	Parkinson et al (2004)	Fitzpatrick et al (2005)	NZ QoL Project (2007)
<ul style="list-style-type: none"> <li>▪ economic diversity</li> <li>▪ multiculturalism</li> <li>▪ skilled workforce</li> <li>▪ connectivity</li> <li>▪ governance/planning</li> <li>▪ innovation/entrepreneurship</li> <li>▪ quality housing</li> </ul>	<ul style="list-style-type: none"> <li>▪ knowledge capital</li> <li>▪ human capital</li> <li>▪ infrastructure capital</li> <li>▪ productive capital</li> <li>▪ social/institutional capital</li> </ul>	<ul style="list-style-type: none"> <li>▪ infrastructure</li> <li>▪ enterprise, economy</li> <li>▪ labour force, skills, RTDI</li> <li>▪ quality of life</li> <li>▪ local capacity/leadership</li> </ul>	<ul style="list-style-type: none"> <li>▪ people</li> <li>▪ knowledge/skills</li> <li>▪ health</li> <li>▪ safety</li> <li>▪ housing</li> <li>▪ social correctness</li> <li>▪ civil/political rights</li> <li>▪ economic living standard</li> <li>▪ economic development</li> <li>▪ natural environment</li> <li>▪ built environment</li> </ul>

**SOURCE: THE STUDIES CITED ARE IDENTIFIED IN FOOTNOTES TO SECTION 2.3.1**

The fields (Domains) which we identified, and which are described further in Chapter 3, are:

- population;
- enterprise and employment;
- learning and innovation;
- natural and physical environment;
- transport and connectivity;
- health and wellness;
- social facilities and networks;
- affluence and deprivation;
- Institutional capacity).

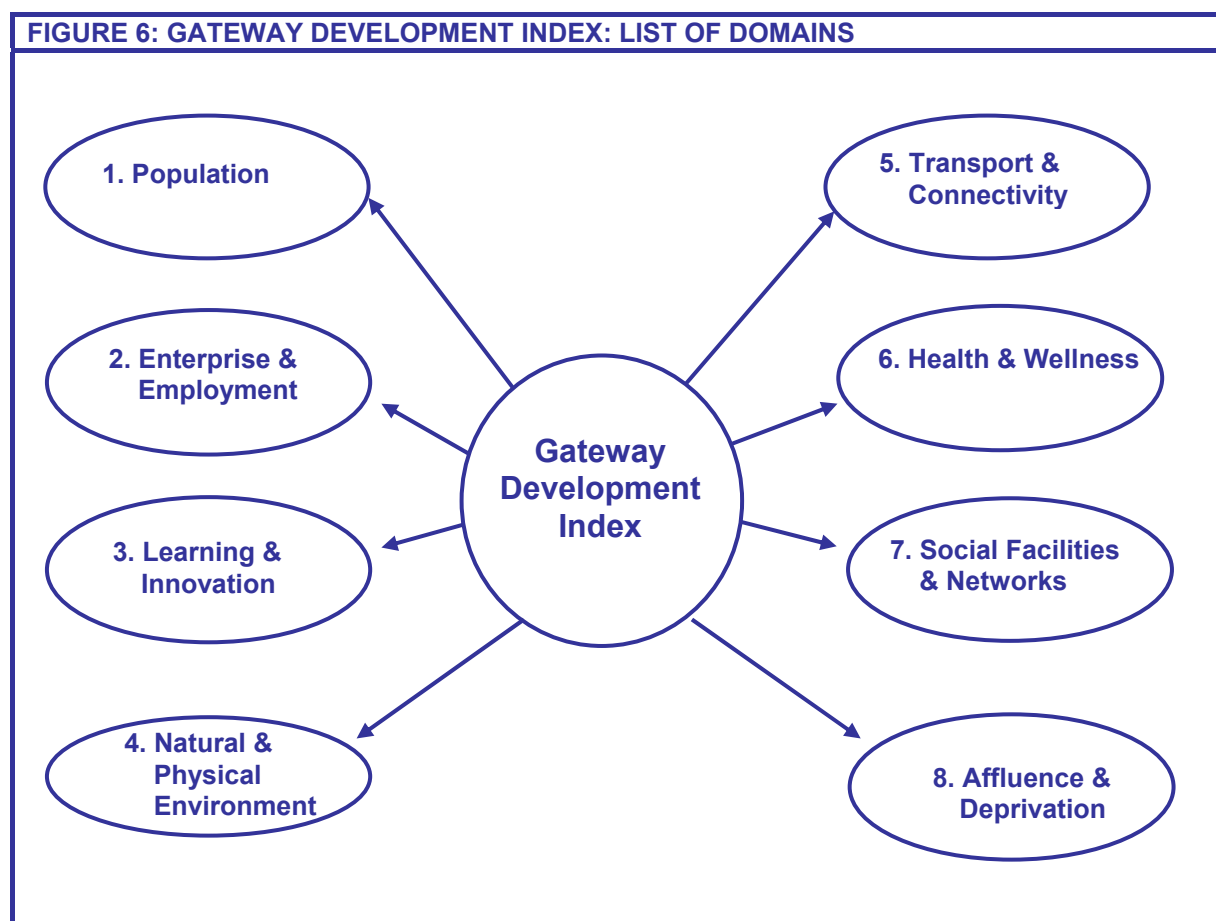
In the case of “institutional capacity”, this is a Domain highlighted as important in many studies of successful Gateways. However, it was dropped in practice as we identified no robust and measurable means for calculating it in the Irish context.

We considered inclusion of the results of the perception survey (see Section 2.3.5) as a substitute for institutional capacity but also decided – in consultation with the clients – to treat this as complementary information rather than a Domain. Therefore, as described in subsequent sections, in practice the GDI has eight Domains, i.e. the list above excluding “institutional capacity” (see Section 2.3.4 following).<sup>13</sup>

### 2.3.4 Identify Type of Index that would be Applied to the Quality of Life Study

The overall nature of the Index that emerged is shown schematically in Figure 6. For each Domain the intention was to have three main “Sub-Domains” deriving from one or a group of statistical indicators.

**FIGURE 6: GATEWAY DEVELOPMENT INDEX: LIST OF DOMAINS**



This Stage also asked that the chosen type of index be considered in terms of how it communicates outcomes. In this regard we explored a series of alternative methods of visual presentation of the

<sup>13</sup> The survey reported in Annex 1 asked for residents' views on institution capacity in the Gateways.

results. Two of these are used in later Chapters of this final report, one involving a short “snapshot” for the present time, and one involving time series data to facilitate monitoring of trends in Gateways over time (i.e. 2010, 2013).

### **2.3.5 Perception Survey**

The Terms of Reference requirements for the perception survey are already set out in Chapter 1. We responded to this in our proposal on the basis of:

- a common survey across the nine locations;
- a common survey design;
- use of on-street interviews with a random sample of the adult resident population.

Respondents therefore involved a random sample of the adult population resident in both the urban core and the wider functional area of each Gateway. However, in each case perceptions were sought regarding the urban core only. Respondents were asked approximately 20 questions with pre-defined answers. Interviews took place with approximately 2,300 interviewees at 81 sampling points (see Annex 1).

Some discussion took place during the study regarding obtaining the perceptions of other parties – notably visitors and external investors – but were left aside as less pertinent in the context of this Index-focused project.

## **2.4 Stage 2: Populate Framework, Create Index**

### **2.4.1 Stage 2A: Populate the Framework with Existing Quantitative Data**

This Stage of the process involved operationalising the Index framework. As previously described, deciding on and operationalising the framework was carried out on an iterative basis. In particular, while the Domains were specified during Stage 1, the individual indicators used within these were heavily influenced by what was available on either a small area or geo-coded basis, given the nature of the Gateway boundaries.

Exploration of potential data sources was very extensive throughout the project. A key element of this included the holding of a Technical Workshop on 24<sup>th</sup> July, attended by relevant personnel from a wide range of economic, social and regional development agencies, and with specific reference to their data collection and databases.<sup>14</sup>

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<sup>14</sup> Chambers Ireland, Combat Poverty, CSO, Department of An Taoiseach, Department of Finance, Dublin Transport Office, Enterprise Ireland, Fáilte Ireland, Forfás, Garda, HSE, Iarnród Éireann, IDA, IBEC, NESCE, NIRSA, NRA, Strategic Investment Board (NI), Pobal, Teagasc, Brady Shipman Martin.

In addition, the two Assemblies each organised a Regional Consultative Workshop in their own regions, one in the BMW Region on 9<sup>th</sup> September and one in the S&E Region on 16<sup>th</sup> September 2008. These were attended by representatives from within each of the two Regions.

#### **2.4.2 Stage 2B: Carry out a Perception Survey of the QoL in the Gateways**

This involved the carrying out of the survey as described in Section 2.3.5 above. The survey questionnaire and results of this survey are summarised in Chapter 4 and are presented in full in Annex 1.

#### **2.4.3 Stage 2C: Produce the Final Index and Report for the Gateways**

This involved compilation of the Index and of the present report.

## **2.5 Major Parameters of the Index**

### **2.5.1 Overview**

As previously described, the work programme involved a large amount of iteration between the different stages, and of interaction with the Steering Committee and with data sources. Key parameters of the Index, as they emerged from this process, are summarised here. They have important implications both for the dataset as described and for use of this database as an Index.

### **2.5.2 Title of Index: GDI**

Following the literature review, and in consultation with the Steering Committee about objectives, the original term “Quality of Life Index” was altered to “Gateway Development Index” (GDI). This was seen as more reflective of the underlying priorities of the Assemblies and the Spatial Policy Unit. It involved basing the Index more on the “successful Gateway” than the “Quality of Life” literature. It also avoided expectations that some users may have of a Quality of Life Index as being predominantly a “soft” counterpart to economic information, rather than as encompassing it.

### **2.5.3 Objective of the Index**

During the course of the assignment the objective, based on a combination of the Terms of Reference and the views of the Steering Committee and the consultants, was refined somewhat to being:

**“to measure/monitor how Gateways are progressing in their NSS role, and in the context of NDP and Regional OP investment”.**

### **2.5.4 Definition of Gateways**

A key preliminary task in the project was to define the geographic coverage of the Gateways. It was originally intended that these could be based on LUTS study boundaries which already exist for

established Gateways. However, this approach was dropped since these areas are not available for all Gateways, and since they have not been defined on a consistent basis. Instead, an alternative approach using 2006 Census POWCAR data was adopted.

Essentially this approach divided the country into three “zones”. This was done by reference to their status as – or relationship with – Gateways, Hubs and other county towns. The principal focus here is on these Zones as they relate to the nine Gateways.<sup>15</sup> The zones are:

- Zone 1: Gateway urban cores, i.e. the relevant cities and towns and their environs as defined by the CSO;
- Zone 2: wider Gateway catchment or functional area, defined using 2006 place of work (POWCAR) Census data, as DEDs where in excess of 20% of the resident population commutes to the urban core to work;
- Zone 3: Gateway periphery also defined using POWCAR data on the basis of the area which is the predominant destination for commuters among the Gateways, the Hubs and the other County towns.<sup>16</sup>

The terms “Zone 1” and “Zone 2” are therefore used extensively in the rest of this report. Figure 7 is a map of these zones. The Index calculation and discussion focuses on Zones 1 (purple) in Figure 7 and 2 (green) in Figure 7 for the nine NSS-designated Gateways. These colours (purple and green) are also used for the Zones in the chart in Chapter 4 (with blue also used for Zones 1 and 2 combined).

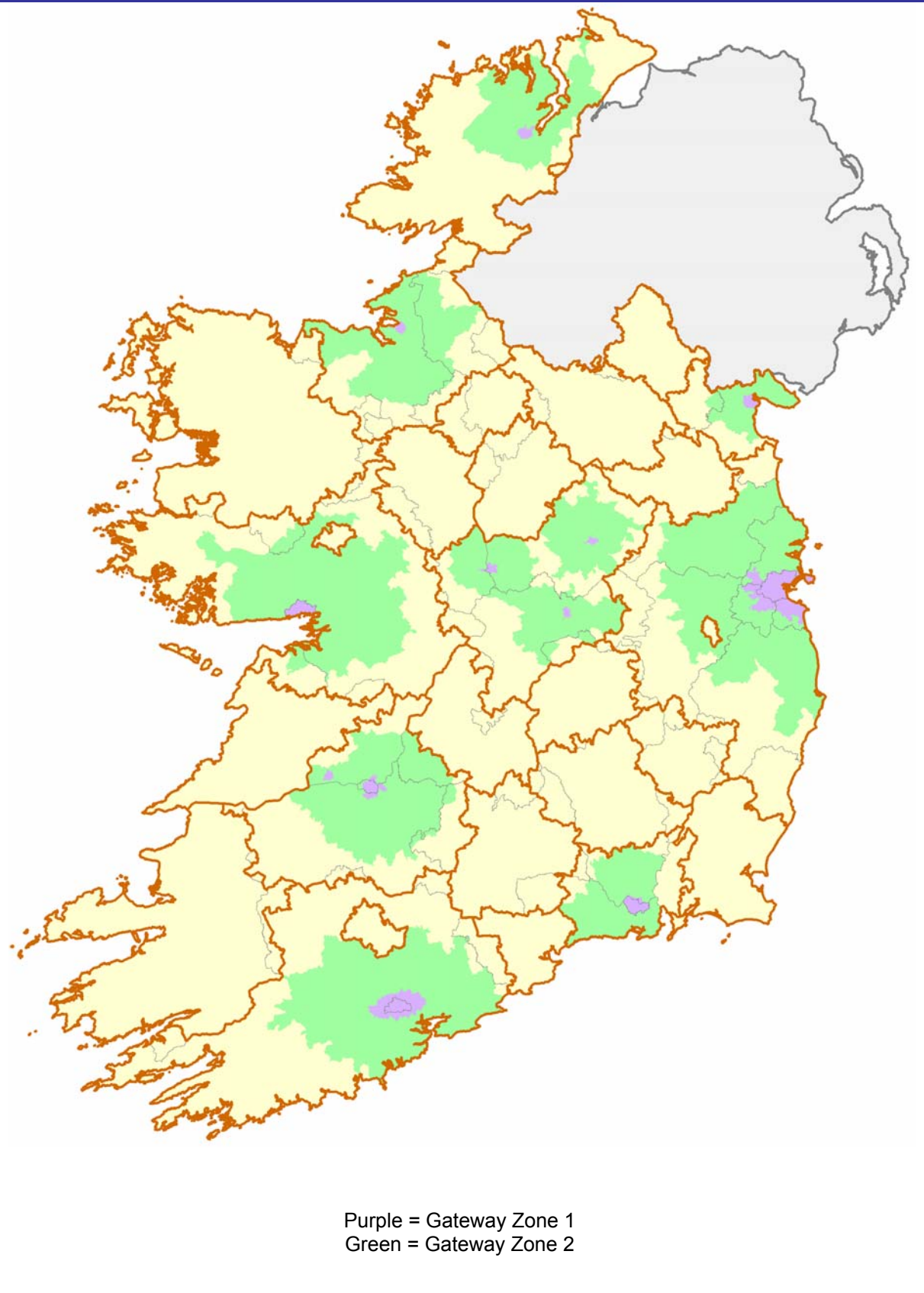
The yellow areas in Figure 7 are the Zone 3 areas of the Gateways, Hubs and Other County Towns. The brown lines demarcate the boundaries, based on travel-to-work patterns, between the Zone 3 areas. An important feature of these is that they generally approximate closely to county boundaries – shown as light grey lines in Figure 7.

An important consequence of this definition is that the database needs information which is either classified on a small area basis or a geo-coded (map grid reference) basis, so that observations can be allocated. This has important implications and means that some major potential data sources, e.g. data from the economic development agencies, was not usable for the Index.

<sup>15</sup> The Index can, in principle, also be calculated for the Hubs and other county towns. The NSS Hubs are: Tralee/Killarney, Castlebar/Ballina, Wexford, Kilkenny, Ennis, Cavan, Monaghan, Mallow and Tuam. The other county towns (i.e. county towns which are not NSS Gateways or Hubs) are: Naas, Clonmel, Carlow, Portlaoise, Nenagh, Longford, Roscommon, Dungarvan, Carrick-on-Shannon, Wicklow, and Lifford.

<sup>16</sup> This task was carried out drawing on work already done by David Meredith of Teagasc and NUI Maynooth. Particular thanks are due to Mr. Meredith for his help and support in this matter. For his approach see Meredith, D, *Identification of Rural Labour Markets in the Republic of Ireland*, Teagasc, RERC Working Paper Series, 2008.

FIGURE 7: MAP OF GATEWAY ZONES



### **2.5.5 Cross-section versus Time Series Approach**

It was affirmed throughout the study that the primary role of the Index is systematic measurement of trends in individual Gateways over time, rather than comparison between the Gateways. This is a significant issue regarding the findings of this Stage of the process. Strictly speaking, this stage has focused on the initial baseline data and future trend data will be only available in subsequent years. However, to test the framework and to help understanding of the current Index levels, time-series for the Index has been calculated back to 1991 (see Chapter 4, Section 7). However, trend data must be seen in this light.

### **2.5.6 Benchmark for Assessing Gateway Performance**

Any examination of trends in Gateways over time – or of cross-comparison between Gateways or cross-comparison of the performance of Domains within Gateways – requires a benchmark of some kind. However, for most Domains there is no readily available and clearly defined external benchmark, e.g. international best practice, government policy objective, etc.

The approach taken therefore is to compare the Gateways with relevant national averages, i.e. the average of all the same zones nationally for the relevant Domain/indicator. The Index does therefore have an in-built comparative aspect. Absolute levels, and trends over time, are always shown relative to national averages. These averages may themselves be changing (up or down) in absolute terms. For example, a “static” performance means only that a Gateway is steady as against a national average which may itself be rising or falling.

This feature of the Index is especially relevant in the immediate (end-2008) macro-economic climate in which the work was completed. The Index is “recession-proof” in that, while performance of all Gateways could fall on a particular indicator, individual Gateways can still be performing better or worse than this average.

### **2.5.7 Use of the Index as an NDP and OP Monitoring Indicator**

As stated in Section 2.5.3, the overall aim of formulating the index is to have a tool to monitor the progress of the Gateways in achieving their objectives under the NSS. Within this, one of the objectives was that it contribute to monitoring the impact of the National Development Plan and of Regional Operational Programme investment.

The types of indicators used in the Index are generally of the results and impacts variety, rather than outputs. However, it must be acknowledged that it does not in any way overcome the challenges faced by all performance indicators, i.e. that of establishing whether or not the observed trends derive from an individual intervention or some other causal factor. These difficulties are exaggerated at sub-national level.

One external variable which the Index does to a degree control is that of the overall trends in the economy. As described in Section 2.5.6, it compares the performance of individual Gateways – both overall by Domain – with the average of their combined counterparts at national level. This comparative approach removes the issue of “rising (or falling) tides raising (or lowering) all boats”, i.e. an upward movement in a Gateway suggests an **above average** performance, reflecting in turn the most likely cause is a specific feature or intervention within that Gateway.

The causation problem is particularly challenging in relation to the Regional Operational Programmes. The footprint of these Programmes in any individual Gateway is relatively small, and may be limited to one or two individual projects. The type of Gateway-wide indicators used in the Index means that attributing any particular movement in the GDI, or in a Domain, to an individual OP investment would be difficult. However, the Index can be seen as measuring whether the overall Gateway-wide objective to which the OP aims to contribute is occurring in a particular Gateway.

### **2.5.8 Border Region Gateways**

Three of the NSS Gateways – Sligo, Letterkenny and Dundalk – are located in the Border region and have a significant cross-border dimension. Letterkenny is part of a linked Gateway with Derry (see Map 1). For the purpose of the initial Stages of the GDI development process it was decided, in conjunction with the clients and Steering Committee, to temporarily set aside this issue in the data assembly and analysis. Otherwise, the project would have faced additional difficulties of finding relevant and compatible Northern Ireland data sources. This issue will, however, need to be addressed in the future because treating these Gateways as purely Republic of Ireland entities may distort the GDI calculations for them.<sup>17</sup> The task will be made easier by maximum clarification of the Republic of Ireland data sources being used as this will sharpen the focus on what compatible Northern Ireland data will be required.

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<sup>17</sup> This is particularly true of Letterkenny, where in effect the town is only part of the Gateway.

## 3. The GDI Dataset

### 3.1 Introduction

This Chapter describes the actual GDI dataset emerging from the project. It summarises the basis on which it was developed, its broad features, how it operates and how it should be interpreted.

### 3.2 Overview of the Dataset

The main objectives of the dataset and Index have been described in earlier chapters. It is designed to contribute to systematic measurement of the progress of individual Gateways towards their objectives under the NSS. It therefore:

- covers all nine Gateways;
- is a quantitative Index involving a total of approximately 30 main indicators, grouped in eight Domains;
- compares the Gateways with the national average for the relevant Zone (1, 2 or total);
- is in principle extendable to Hubs and other County towns;
- is defined so that upward movements represents positive progress in an individual Gateway;
- provides a baseline for 2008;
- is replicable between Census years;
- is constructed so as to capture trends over time (esp. 2010 and 2012).

In preparing the Index, and in consultation with the Steering Committee, we have aimed for:

- a maximum of three relevant indicators within each of the eight Domains;
- ensuring that Domains and positive growth in them reflects not only any economic growth, but also takes into account sustainability and the wider objectives for Gateways;
- use of non-Census based indicators where possible (so as to allow future compilation between Census years)<sup>18</sup>;
- maximum use of readily (or potentially readily) available large-scale administrative data sources which are already established and quality assured by the respective government departments/agencies, and where a commitment exists for their continued maintenance and development.

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<sup>18</sup> Where only Census data are usable there is still potential to estimate these in inter-Census years.

**FIGURE 8: SUMMARY OF GDI DOMAINS AND CONSTITUENT INDICATORS**

Domain/Indicator	Variable Used	Main Source
<b>1. Population</b>		
▪ Population growth	Population change relative to national average	Census of Population
▪ Age vibrancy of population	Age dependency rate	Census of Population
<b>2. Enterprise and Employment</b>		
▪ New firm formation	New VAT registrations (per 1,000 population)	Revenue
▪ Quality of enterprise	Share of services sector in total employment	GAMMA
▪ Unemployment rate	No. on Live Register per 100 workforce	Department of Social and Family Affairs
<b>3. Knowledge and Innovation</b>		
▪ Labour force quality	% labour force with third-level qualifications	Census of Population
▪ Graduate admissions	Third-level admissions as % of age cohort	Higher Education Authority
▪ Graduate retention	Proportion of graduates finding jobs in area	Higher Education Authority
▪ Third-level R&D	R&D Earnings per head of (Zone 1) population	Higher Education Authority
<b>4. National and Physical Environment</b>		
▪ River water quality	River water quality indicator	Environmental Protection Agency
▪ Drinking water quality	Drinking water quality indicator	Environmental Protection Agency
<b>5. Transport and Connectivity</b>		
▪ Transport access	Non-car use, travel times and public transport availability	Census/Pobal
▪ Retail service availability	Retail outlets per 100 households	GAMMA
▪ ICT Connectivity	PC/internet access per 1,000 households	Census of Population
<b>6. Health and Wellness</b>		
▪ Mortality	Mortality rate	Health Service Executive*
▪ Birth weight	Average birth weight	Health Service Executive*
▪ Primary healthcare	No. of GPs per capita	Health Service Executive
<b>7. Social Facilities and Networks</b>		
▪ Social facilities	No. of facilities per head	Fáilte Ireland*
▪ Crime levels	No. of serious crimes per capita	CSO/Gardaí
▪ Community involvement	Level of people participating in Community Activity	Census of Population
<b>8. Affluence and Deprivation</b>		
▪ Demographic growth		The new measure of Deprivation
▪ Social class composition		The new measure of Deprivation
▪ Strength of labour market		The new measure of Deprivation
<b>* not included in current version of GDI</b>		
<b>SOURCE: DETAILED GDI DATA FRAMEWORK, ANNEX</b>		

Because of the inclusion of new data sources that have not been accessible hitherto, and the partially incomplete nature of some Domains at this stage, we have refrained from more complex methods of index construction but instead opted for a simple (un-weighted) additive approach of all available indicators.

### **3.3 GDI Domains and Indicators**

Figure 8 summarises the eight Domains and the individual indicators within these that currently constitute the dataset and the Index. This shows the eight Domains and the underlying main Sub-Domains currently available.

In a number of instances the Sub-Domains are themselves made up of a series of further indicators and sub-indicators. The full extent of this is shown in Annex 2.

For a number of Domains additional data-sources have been identified during the project as potentially available but have not been accessed for a variety of reasons outside our control. In these cases they are included in the framework but are not yet in the dataset. These cases, and their status, are referred to in Chapter 5 and are also shown in Annex 2.

## 4. GDI: Initial Results and Implications

### 4.1 Introduction

This Chapter presents the GDI as calculated for the first time in 2008. The following Sections summarise the results of these initial GDI results for each Gateway. Section 4.2 summarises the presentation format. Section 4.3 presents the results for the BMW Region Gateways and Section 4.4 the results for the five S&E Region Gateways. In Sections 4.3 and 4.4 the order involves moving anti-clockwise around the map of Ireland (see Figure 1), beginning with Dundalk in the BMW and ending with Dublin in the S&E.

### 4.2 Format of Presentation

#### 4.2.1 Structure of Gateway Presentations

For each individual Gateway the results in Section 4.3 are presented on three pages, one of text and two of charts:

- the first page summarises the GDI for the Gateway by reference to the accompanying charts;
- the second page presents a “snap-shot” in bar chart form of the GDI for the Gateway in 2007;
- the third page presents time-series calculations of the GDI in the Gateway 1991-2007.

#### 4.2.2 Structure of One-Page Summary

The GDI calculations by Gateway in Section 4.3 on the first page of the summaries are summarised to a standard six-heading structure as follows:

- a. **Overall GDI:** this presents the overall score for the GDI baseline year;
- b. **GDI by Domain:** this describes the GDI scores in the Gateway for the eight individual Domains;
- c. **Zone 1 and Zone 2:** this comments on the overall and Domain calculations for the two Zones within the individual Gateway;
- d. **GDI trends:** this comments on the trends of the GDI in the Gateway, considering Zone 1 and Zone 2 separately against the national average over the period since 1991;
- e. **Residents’ perceptions:** this summarises the results of the complementary perception survey undertaken in each Gateway;<sup>19</sup>

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<sup>19</sup> In interpreting these results, it should be emphasised that, while the results are also divided into Zones 1 and 2, the perceptions of the Zone 2 residents relate to Zone 1 and not to Zone 2, i.e. they were asked about their perceptions of the urban core of their Gateway.

- f. **Conclusions and implications:** this summarises the consultants' view of what the current, provisional, GDI calculations mean for the Gateway and the implication they may have for its future development.

It should be noted that these summaries are not intended to be a comprehensive status review and summary of each Gateway, they are Gateway-focused summaries of the initial GDI calculations and some observations on what these tell us about the Gateway.

#### 4.2.3 Charts for Each Gateway

The charts supporting this summary of findings then follow. Page one presents the GDI score for Zones 1 (purple) and Zone 2 (green) and the Gateway total in bar charts (blue), plus a summary bar chart for the perception survey results (i.e. four bar charts in all).

Page two of the Gateway charts presents eight time-series for the period 1991-2007, one each for the individual Domains and one for the composite GDI.<sup>20</sup> These time-series charts each show three lines, one each for Zone 1 (purple) and Zone 2 (green) together with the national average (black horizontal line). The 2007 GDI scores accord with those in the bar charts for that Gateway on the previous page.

In the time-series charts the vertical line at 2006 highlights a combination of a break in data source in some cases, plus the fact that the single year 2006-07 is treated visually as equivalent to earlier 5-7 year periods (i.e. it has the same length on the bottom axis).

In this summary, the eight Domains are described by their abbreviated titles. This Section recaps on the Domains and their primary content (see Figure 8 above).

- *Domain 1: “**Population**” – this includes population change and the dependency ratio;*
- *Domain 2: Enterprise and Employment (abbr. as “**Enterprise**”) – reflects new business and the strength of the sectoral base (defined as the share of services in total employment);*
- *Domain 3: Knowledge and Innovation (abbr. “**Knowledge**”) – captures the quality of the labour force (represented by third-level qualifications) as well as the prevalence of HE Institutions;*
- *Domain 4: Natural and Physical Environment (abbr. “**Environment**”) – includes water and drinking-water quality data as indicators of environmental quality;*
- *Domain 5: Transport and Communication<sup>21</sup> (abbr. “**Transport**”) – includes a series of transport and ICT indicators;*
- *Domain 6: Health and Wellness (abbr. “**Health**”) – is currently measured in terms of the quality of primary health care (measured by GPs per head of population);*

<sup>20</sup> Domain 8 (Environment) is excluded since there are no time-series data for this Domain.

<sup>21</sup> This Domain includes ICT connectivity.

- Domain 7: Social Facilities and Networks (abbr. “**Social**”) – reflects responses to the 2006 Census on social participation, plus Garda crime levels data;
- Domain 8: Affluence and Deprivation (abbr. “**Affluence**”) – uses the New Measures of Deprivation Index.<sup>22</sup>

In this first phase of development of the Index data availability (or non-availability) means that some Domains are still incomplete or rather narrowly based, e.g. the Environment Domain reflects water quality only, and the Health Domain is for now based on just one indicator (GPs per capita). These data and other constraints involved in the Index have been described in earlier Chapters. Hence these results are provisional and preliminary.

#### 4.2.4 Findings of Residents’ Survey

The fourth bar chart on the first page of charts for each of the Gateways summarises the results from the survey. The responses are grouped under three dimensions: *Awareness*, *Quality* and *Change*, as well as containing a fourth bar which shows the aggregate in terms of the average score of the three dimensions. The four indicators are presented for respondents (residents) of both the urban area of the Gateway (Zone 1) as well as for the Gateway’s catchment area (Zone 2). However, it should be noted that the perceptions relate to Zone 1 only, i.e. residents of both Zones were asked for their assessments of Zone 1.

The three dimensions are averages of a number of individual questions covering multiple Domains from the survey as follows:

- “*Awareness*”: Q2 Awareness among residents of the “Gateway Idea” and Q9 Institutional Environment;
- “*Quality*”: Part 1 of questions Q3 to Q8 and Q10, which asked the respondents to rate the Gateway on a 10 point scale with regard to the quality of Business, Education, Environment, Services, Health, Social and Overall Attractiveness;
- “*Change*”: Part 2 of questions Q3 to Q8 and Q10, which asked the respondents to rate the Gateway as to whether it has improved, stayed the same or declined with regard to the same Domains;
- “*Perception*”: this is the composite of the above three.

For the full questionnaire and survey results see Annex 1.

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<sup>22</sup> T. Haase and J. Pratschke, *New Measures of Deprivation*, 2008, [www.pobal.ie](http://www.pobal.ie).

## 4.3 GDI for Border, Midland and Western Region Gateways<sup>23</sup>

### Dundalk Gateway Development Index



**Overall GDI:** the GDI score of Dundalk as a whole is **2.7**, against an average of 5. This is the lowest score of any Gateway.

**GDI by Domain:** the only Domain scoring above the national average in Dundalk is transport. Its performance is also above average for each of the indicators within this Domain – public transport usage, retail service availability and ICT connectivity. The Gateway is particularly far below the average in relation to the knowledge, environment and affluence Domains.

The knowledge score reflects relatively low adult population levels, especially in Zone 1, and relatively low levels of its graduates returning to work in the Gateway. The environment scores reflects both relatively low drinking and river water quality in the Gateway, especially in Zone 1. The affluence Domain reflects Dundalk's score in the Haase Affluence/Deprivation index.

**Zones 1 and 2:** the Zone 2 GDI is above that of Zone 1. Both Zones, and particularly Zone 1, reveal a very variable pattern across individual Domains. In Zone 1 environment, knowledge and affluence have especially low scores, connectivity and health are about the national average. In Zone 2 the social and environment Domains are much stronger than in Zone 1, and close to the national average.

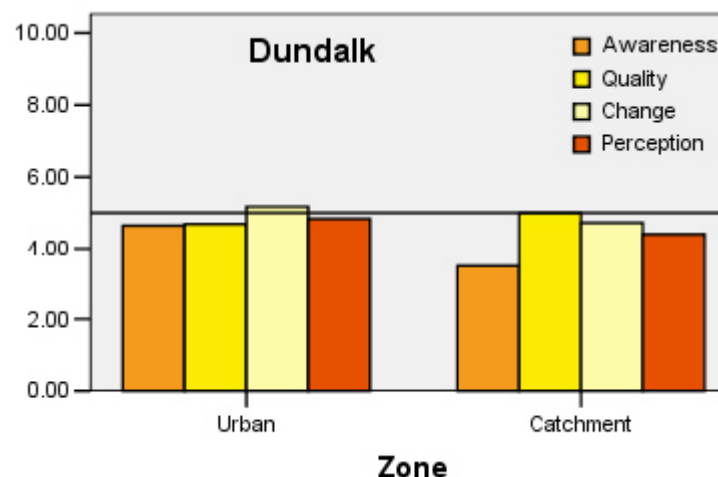
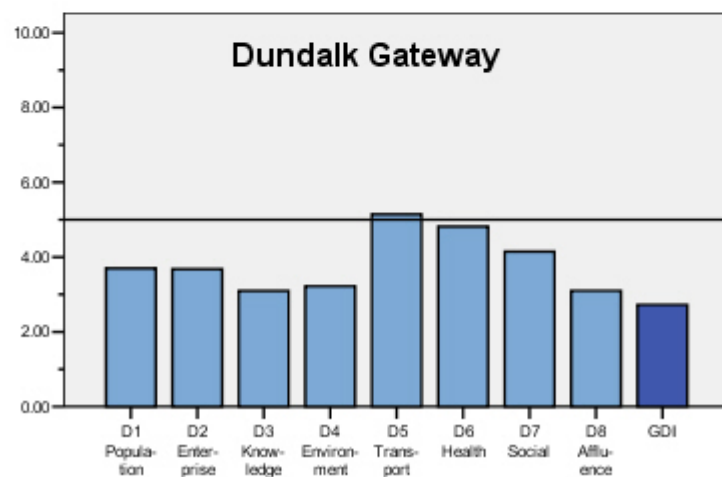
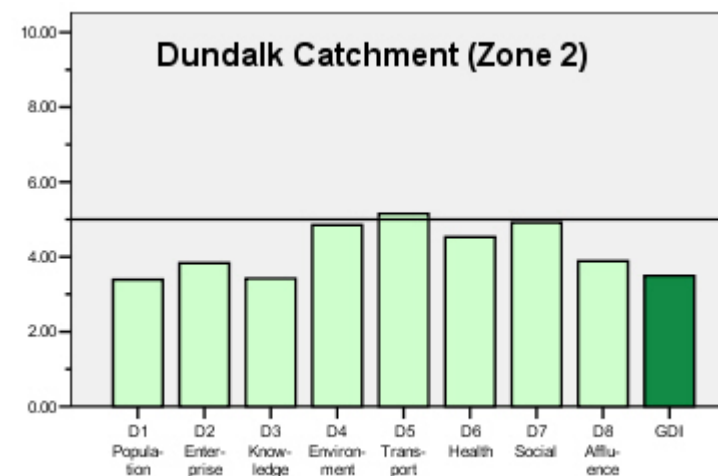
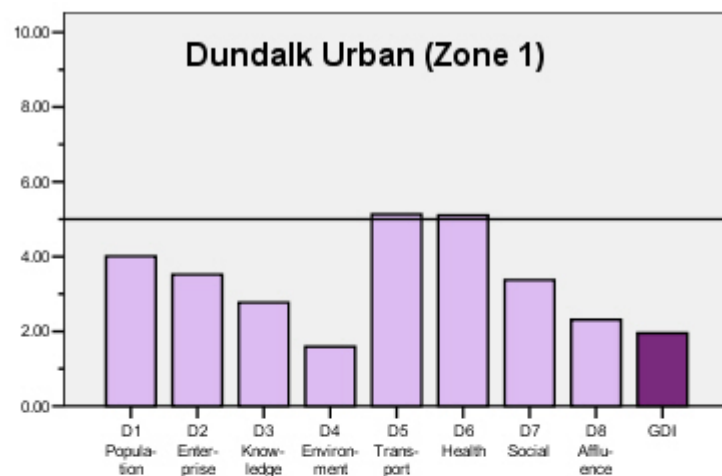
**GDI trends:** Dundalk has been well below the national average GDI over time. Zone 1 showed some improvement earlier in the time-period examined (1991-2006), possibly reflecting the positive impact of the Northern Ireland Peace Process.

**Residents' perceptions:** residents' perception of Dundalk are (slightly) below the national average. This makes it unusual among the residents of relatively poorly performing Gateways, i.e. residents of poorly performing Gateways tend to have relatively high perception of their own Gateway. An exception is awareness of the Gateway status, which is particularly low in Dundalk Zone 2. Dundalk residents have a particularly positive perception of their transport status, which is consistent with the calculated GDI.

**Conclusions and implications:** Dundalk is one of the most challenging of the Gateways in terms of its structure and performance as revealed in this preliminary GDI analysis. It is not improving its relative position and is below average on most Domains. Its status suggests that as yet it has not fully capitalized on its relatively advantageous location on the Dublin-Belfast corridor.

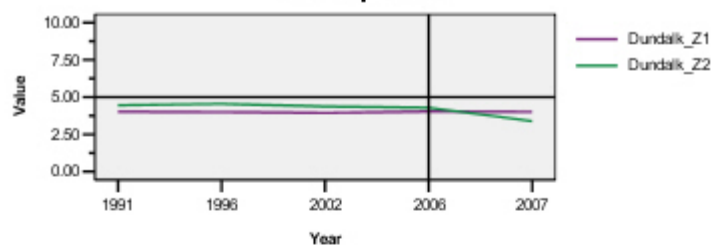
<sup>23</sup> For a summary explanation of the format and structure of these Gateway summaries see the immediately preceding Section (4.2).

PREPARATION OF A GATEWAY DEVELOPMENT INDEX

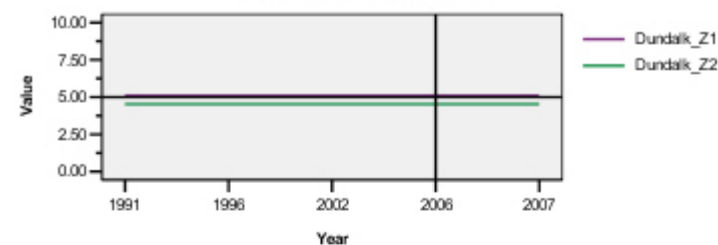


PREPARATION OF A GATEWAY DEVELOPMENT INDEX

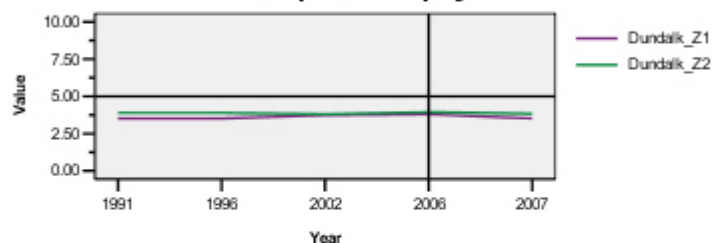
**D1 - Population**



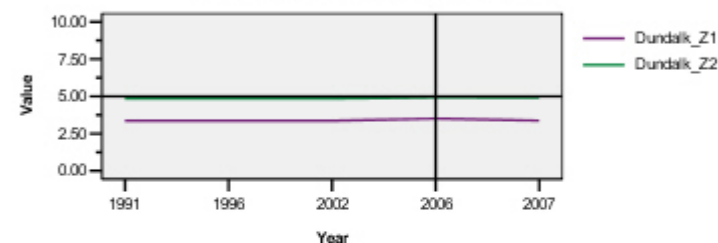
**D6 Health & Wellness**



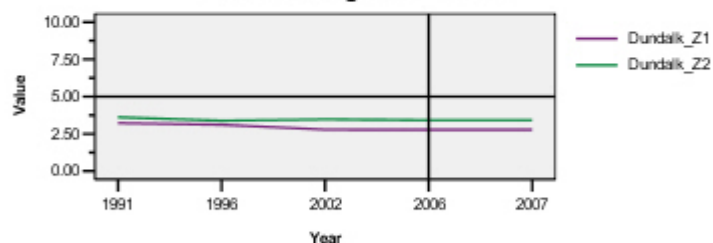
**D2 Enterprise & Employment**



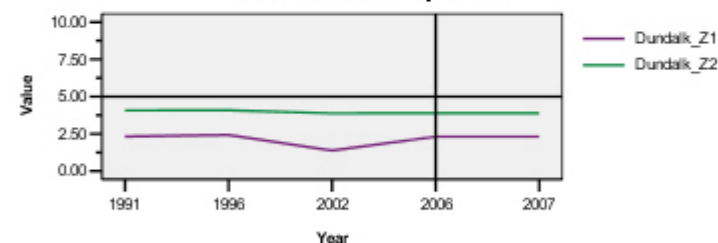
**D7 Social Facilities & Networks**



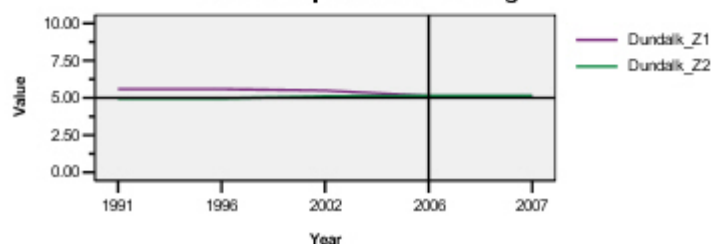
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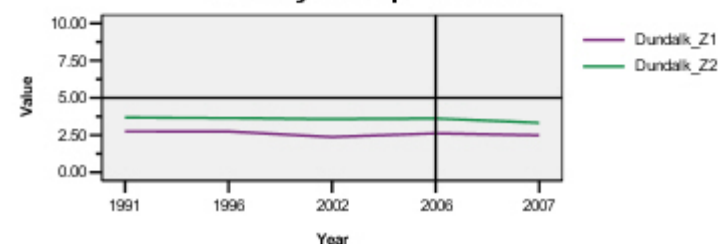
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## Letterkenny Gateway Development Index



**Overall GDI:** Letterkenny's overall GDI score is **3.2** (against an average of 5) for the combined Gateway Zones 1 and 2. This is well below the national average, and is one of the lowest Gateway scores.

**GDI by Domain:** two of the eight Domains in Letterkenny are above the national average, namely population and health. Population growth has been particularly high in the Gateway. Three are somewhat below – namely transport, knowledge, environment – and the remaining three are well below, namely the enterprise, affluence and social Domains. The relatively low enterprise and employment Domain score reflects relatively high unemployment (esp. in Zone 1). The relatively low Social Domain score reflects a high crime rate (again especially in Zone 1). The affluence Domain score is the Gateway's position in the composite Haase Affluence/Deprivation Index.

**Zones 1 and 2:** the Letterkenny Zone 1 GDI is slightly above that of Zone 2. In Zone 1, population and health are high, while the enterprise and social Domains are particularly low performers. In Zone 2, the population Domain also scores highly, but is the only one above the national average. Affluence is especially low.

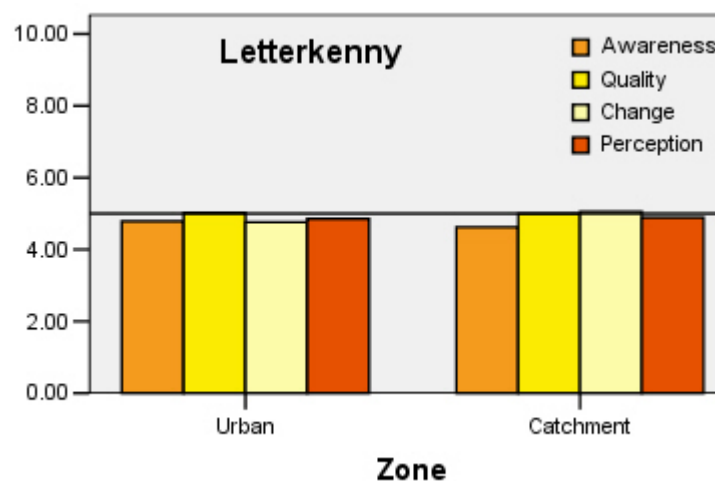
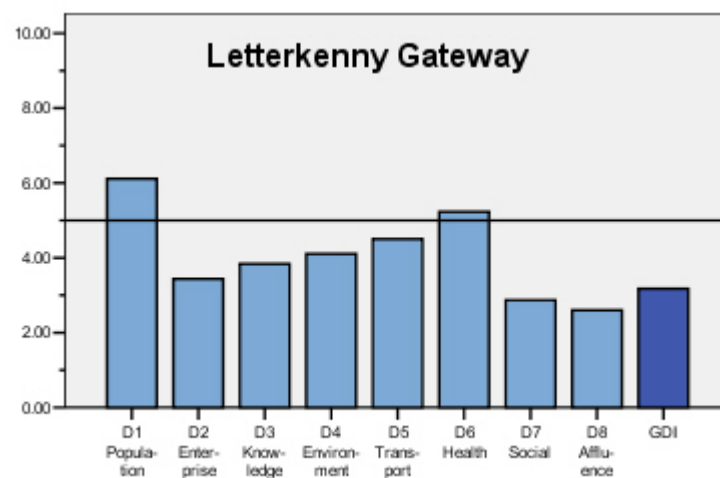
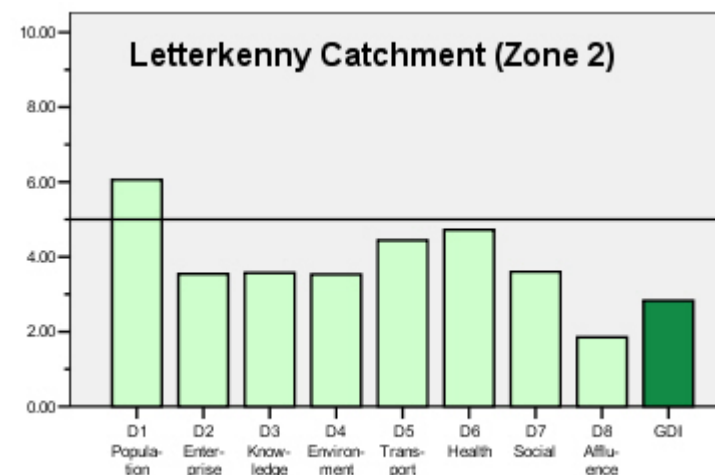
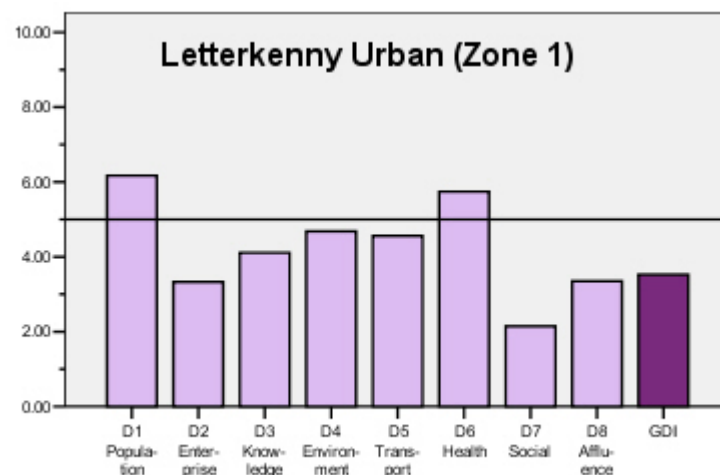
**GDI trends:** Letterkenny Zone 1 was at or near the national average GDI score during much of the 1990s and early in the present decade, but has since been slipping below the national average. Zone 2 has gradually improved over the period, but still remains well below the national average.

The two Zones are therefore converging in GDI terms, but at a level below the national average.

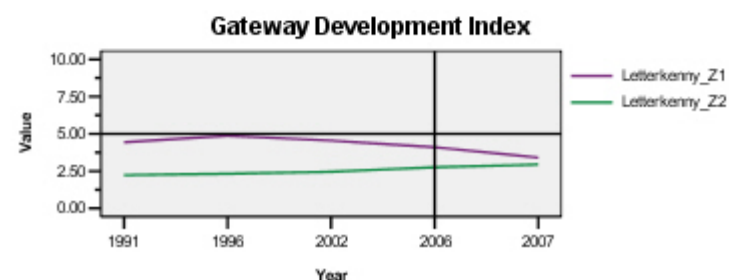
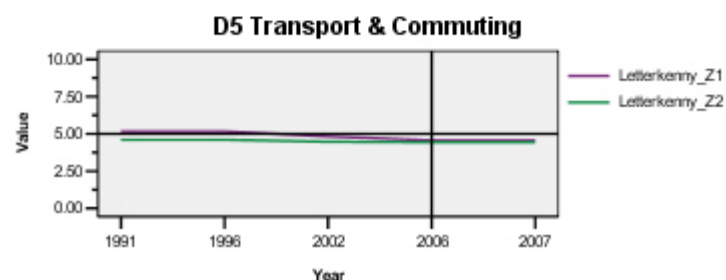
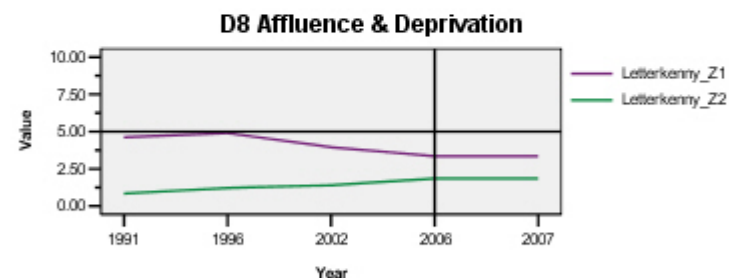
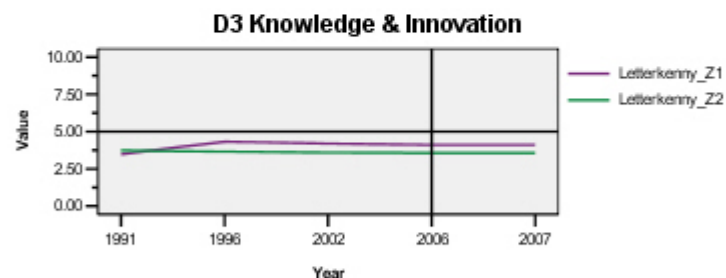
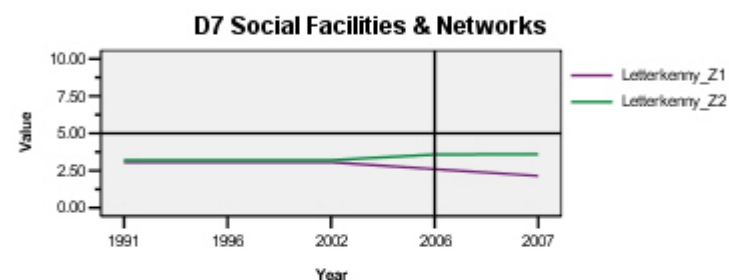
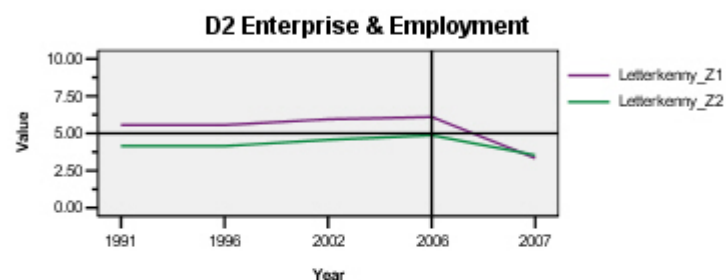
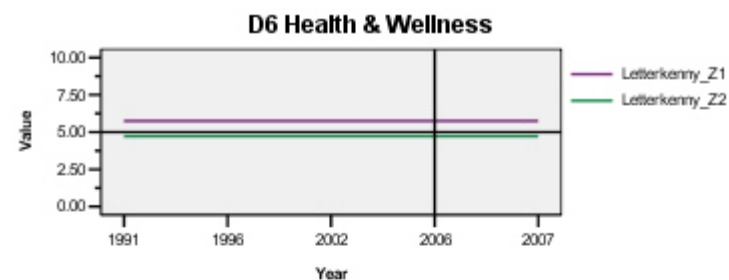
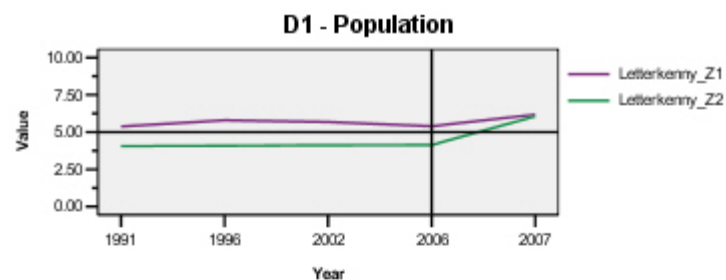
**Residents' perceptions:** Zone 1 and Zone 2 residents have very similar perceptions of the Gateway. The perceptions of Letterkenny residents in both Zones of the urban core are also very much in line with the national average. Residents, particularly in Zone 1, have a particularly low assessment of the traffic congestion situation, although transport access is not measured in the GDI as particularly poor by national standards.

**Conclusions and implications:** the present results for Letterkenny must be treated as provisional, given the absence of Northern Ireland data for this linked Gateway. Taking Letterkenny as a stand-alone Gateway, despite considerable growth over the past decade it has not progressed towards the national average on most GDI Domains.

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## Sligo Gateway Development Index



**Overall GDI:** the GDI score for Sligo is **5.0**, just on the national average.

**GDI by Domain:** in Sligo (Zones 1 and 2 combined) the health, environment and social Domains perform strongly. The social Domain score is especially high, and reflects a positive performance in relation to both crime levels and social participation (as reported in the 2006 Census). Enterprise and transport are at the national average. Population, knowledge and affluence are the weaker Domains in Sligo. However, even these are not greatly below the national average.

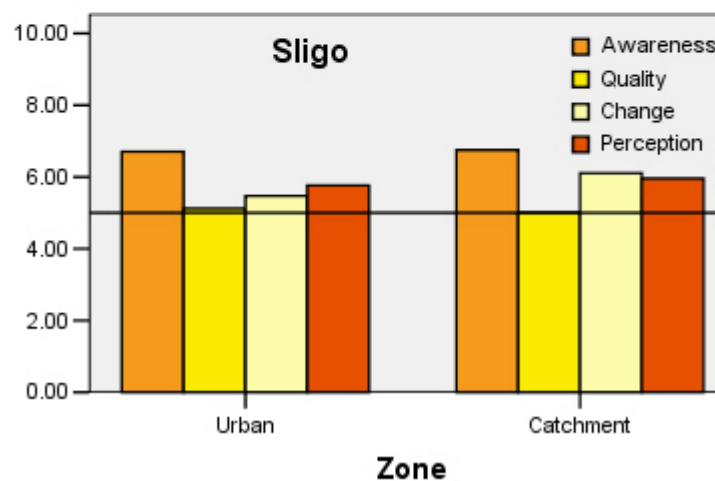
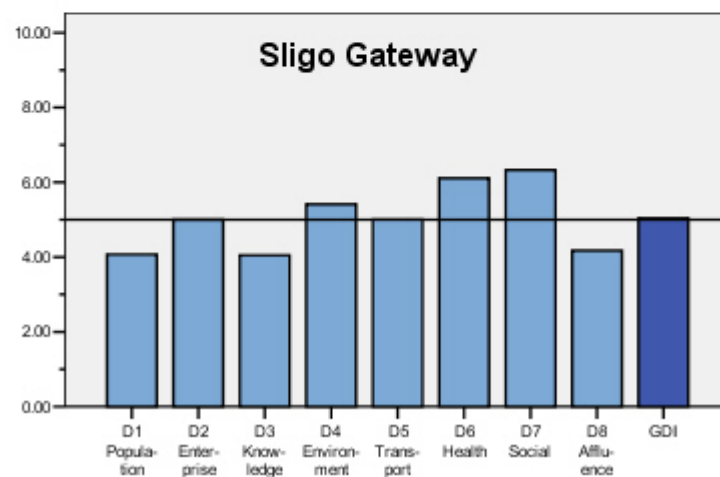
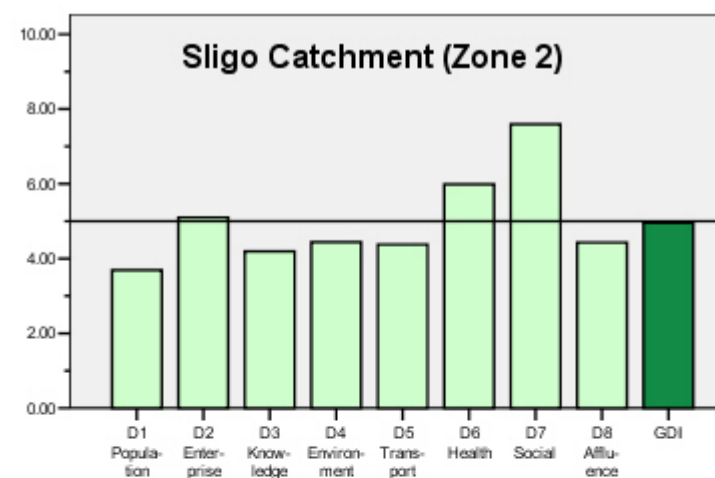
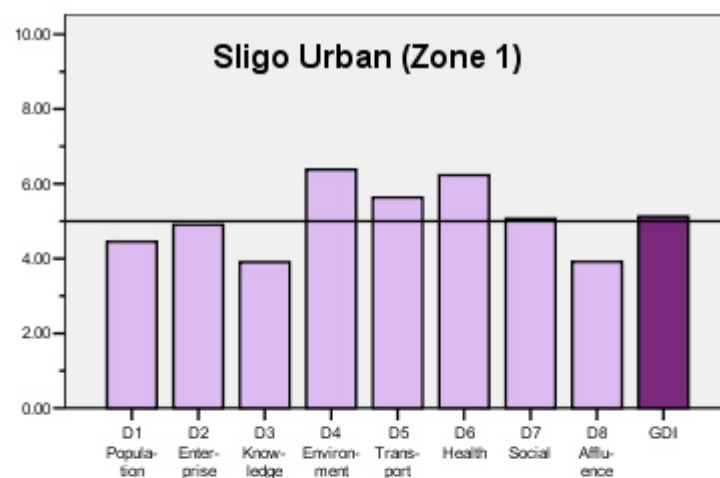
**Zones 1 and 2:** Sligo's Zone 1 GDI score is just above the national average overall, and marginally better than Zone 2 which is at it. Zone 1 scores highest on the environment, health and transport Domains. In Zone 2 a particular strength is the social Domain, and a weakness is the population Domain.

**GDI trends:** Sligo Zone 2 has been consistently (just) above the national average over time. Zone 1 is just below it, and is marginally losing ground over time in comparison to the average position.

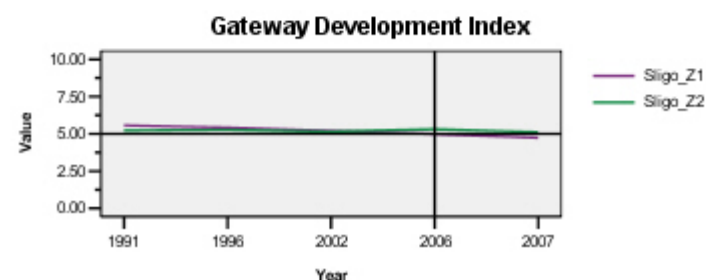
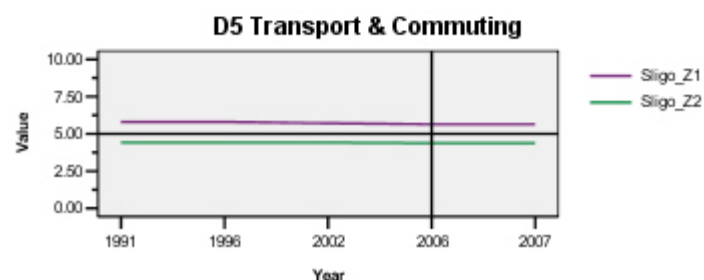
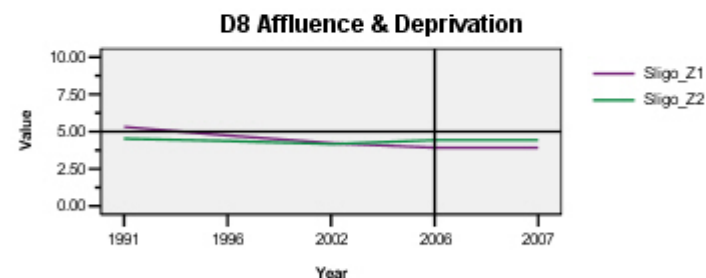
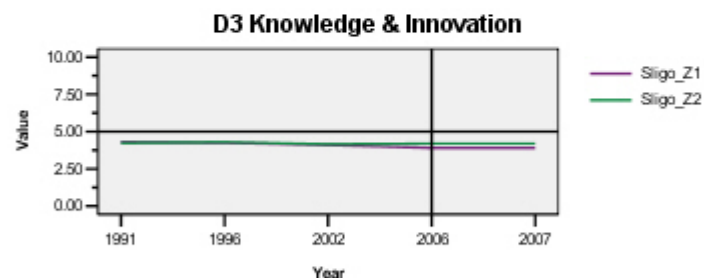
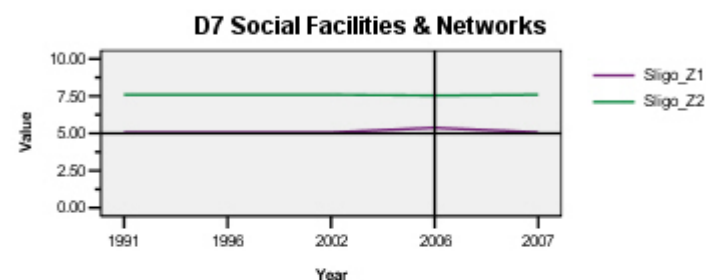
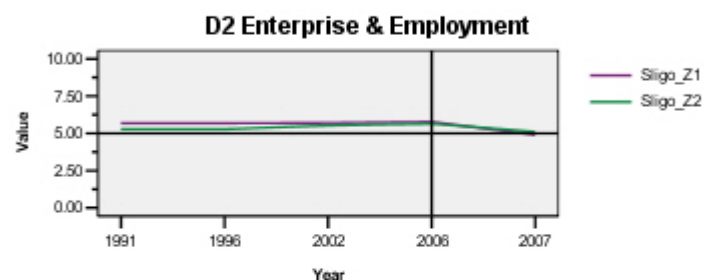
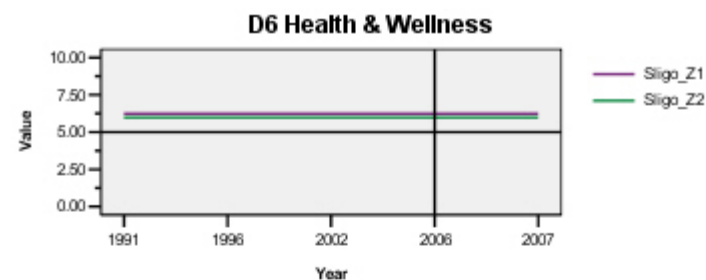
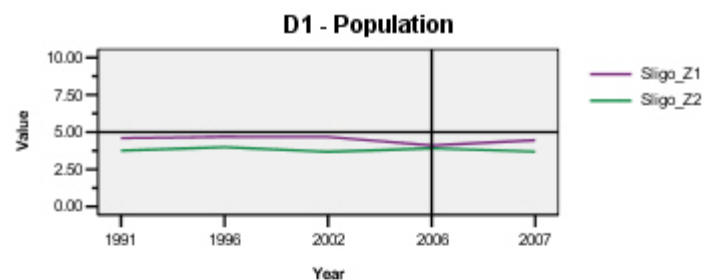
**Residents' perceptions:** Residents in Sligo Zones 1 and 2 have very similar perceptions of their Gateway (Zone 1). The perception of the Gateway among its residents is high, in particular awareness of its Gateway status. The perception of Gateway quality is akin to the national average, and Sligo is perceived by residents as improving. Perceptions are particularly positive in relation to education and transport access, although actual GDI performance in these Domains is not especially strong.

**Conclusions and implications:** Sligo is showing considerable promise as a Gateway, and has held its position at the national average GDI score during a period when that average rose. Its urban core is somewhat weaker than its catchment.

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## Galway Gateway Development Index



**Overall GDI:** Galway's overall GDI score is **5.6**. This makes it the second highest scoring Gateway, just below Cork. This reflects high scores on most of the individual features of a Gateway.

**GDI by Domain:** Galway (Zones 1 and 2 combined) is at or above the national average on all individual Domains except environment and transport. It is especially high in relation to the knowledge and the social Domains, consistent with the perception of the city as one with a strong positive urban atmosphere.

**Zones 1 and 2:** Galway's overall positive performance is strongly driven by the performance of Zone 1. All Zone 1 Domains (except environment and enterprise) are above the national average.

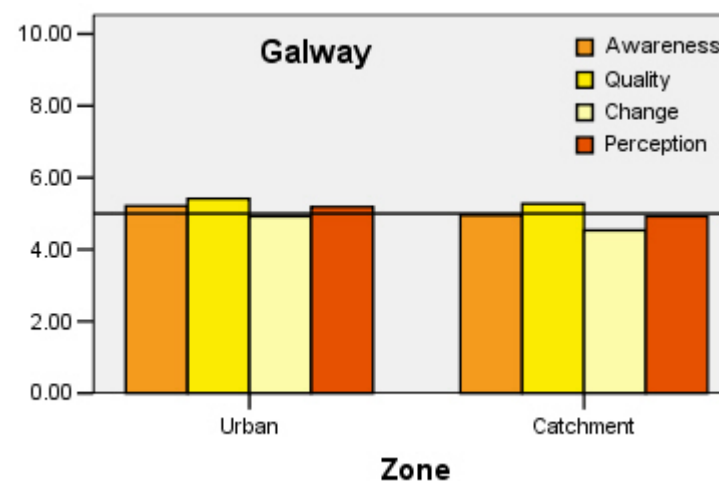
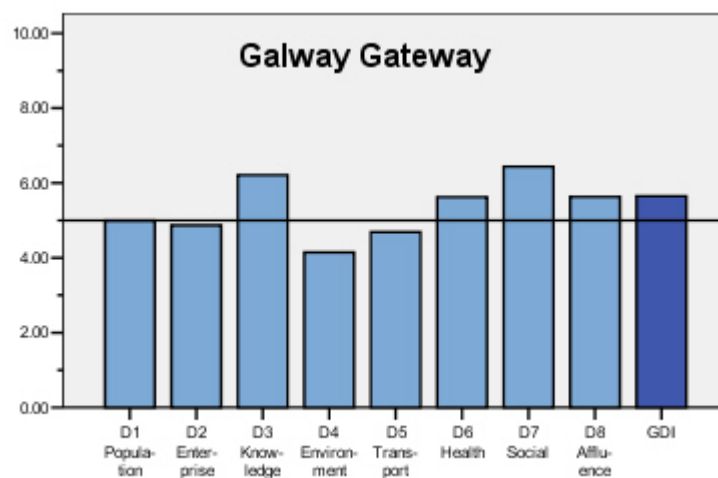
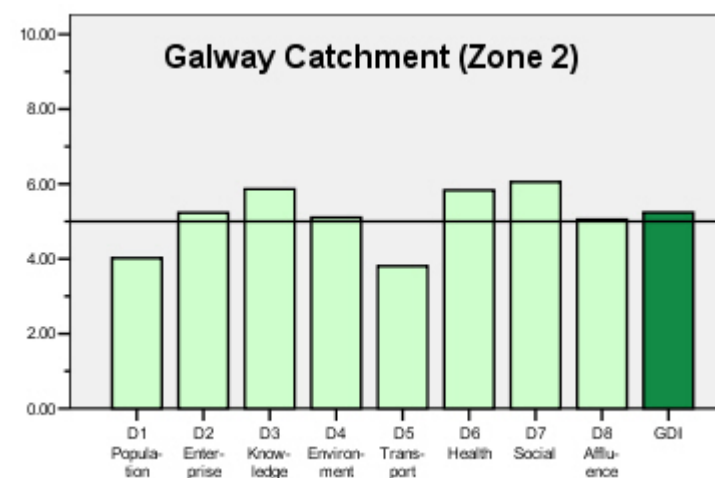
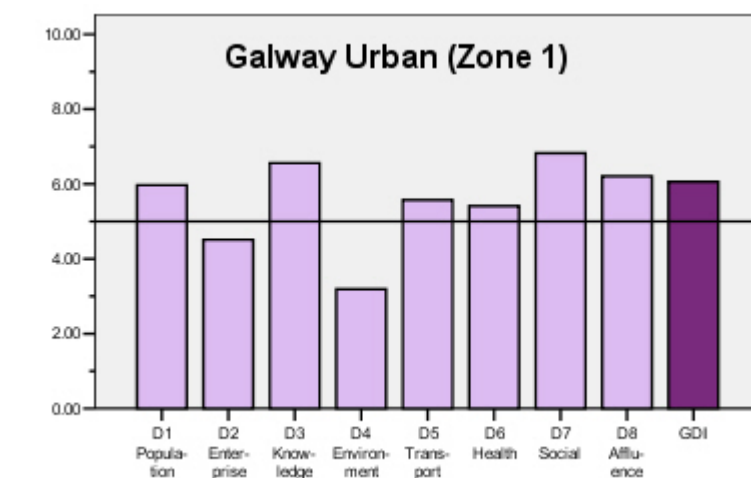
The Zone is particularly strong in relation to the knowledge and social Domains, and weak regarding environment, consistent with recent well-publicised drinking water quality issues. Galway's Zone 2 total GDI score is also above the national average GDI, but population and transport are relatively weak Domains there. Population growth was weak in the 2000-06 period in the Zone (but high in Zone 1). The Zone 2 transport Domain score reflects relatively low access to and usage of public transport.

**GDI trends:** Galway's position above the average national is a long-standing one. Zone 1 has been consistently well above the national average, and Zone 2 has also recently been creeping further above it.

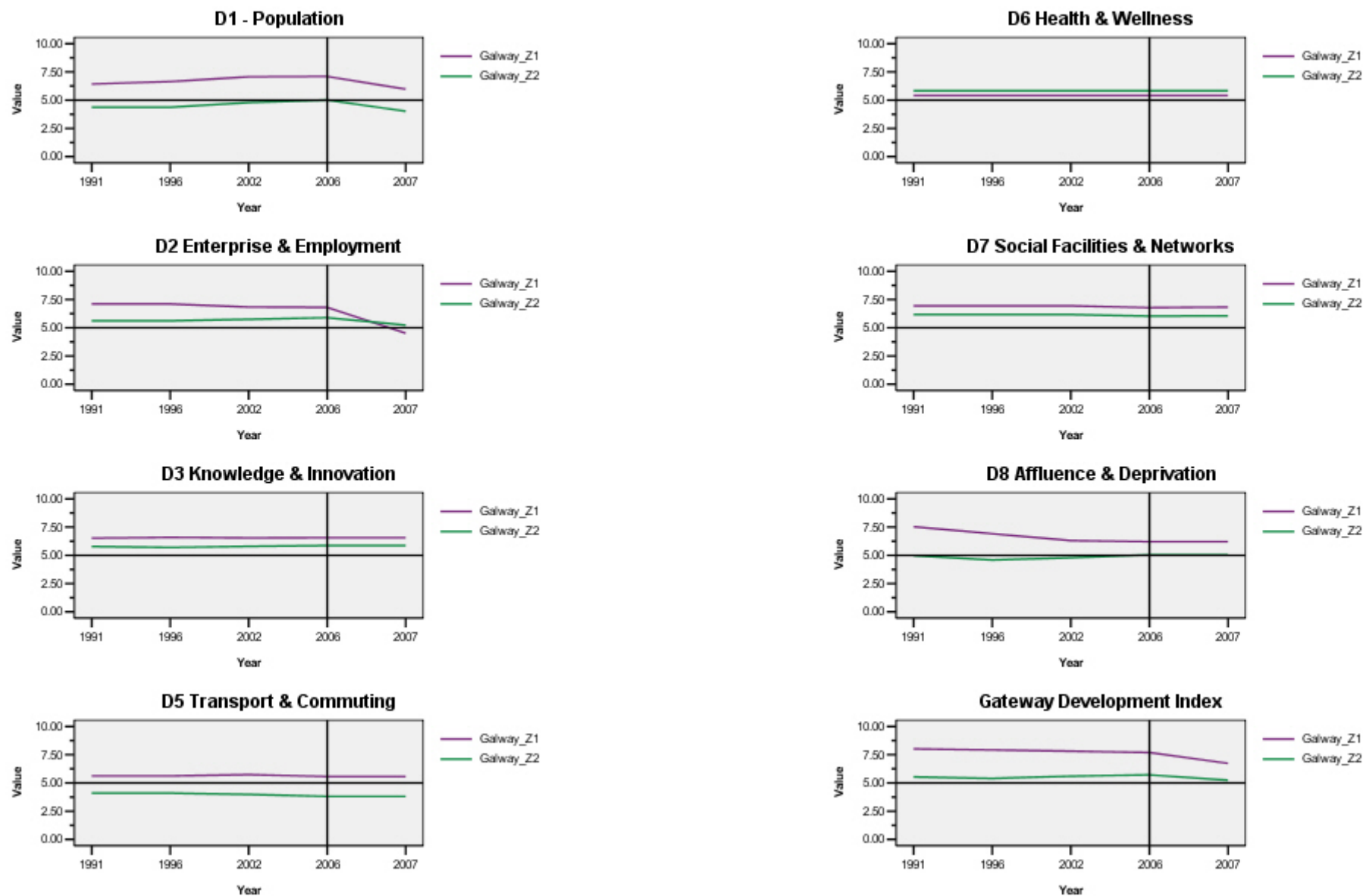
**Residents' perceptions:** residents' perceptions of Galway are "middle of the road". Zone 2 shows a slightly below national average perception in relation to change within the Gateway. Residents' perceptions are not particularly closely correlated with the calculated GDI, consistent with overall findings in other Gateways. In Galway this finding also relates to perceptions at Domain level. Residents are not especially positive even where the Gateway's GDI scores are high.

**Conclusions and implications:** Galway is a success story of Irish Gateways over the last two decades, and this is confirmed by the Index calculations. The Gateway scores well on most Domains, and particularly well on key drivers such as knowledge. The significant weakness in the Gateway is that of transport, with evident need for improved public transport access and usage, especially in Zone 2.

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## Midlands Gateway Development Index



**Overall GDI:** the GDI score for the Midland Gateway (Athlone, Tullamore, Mullingar) as a whole is **3.6**. This is well below the national average of 5.0.

**GDI by Domain:** the combined score of the two Domains is above average in relation to health and transport, but below in relation to the knowledge, environment, enterprise, affluence, social and population Domains. It is therefore below average for six of the eight GDI Domains.

The enterprise and knowledge Domains are especially weak. Enterprise reflecting a relatively low share of services sector employment, knowledge reflecting a relatively low percentage of adults with third-level education and of returning graduates. River water quality, but not drinking water quality, is also relatively low in the Gateway.

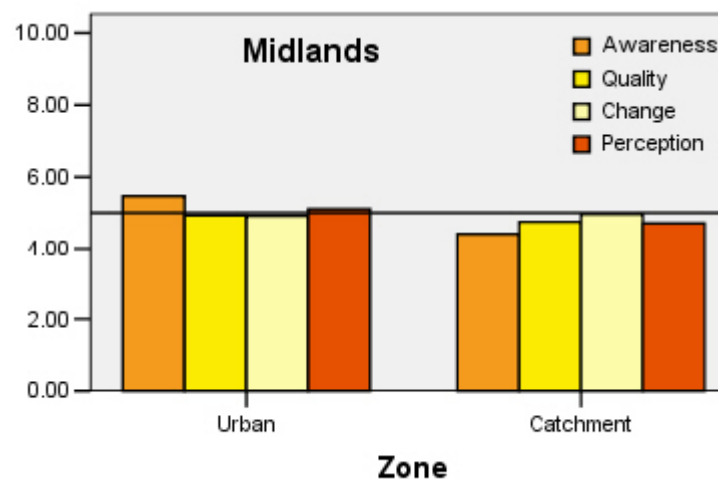
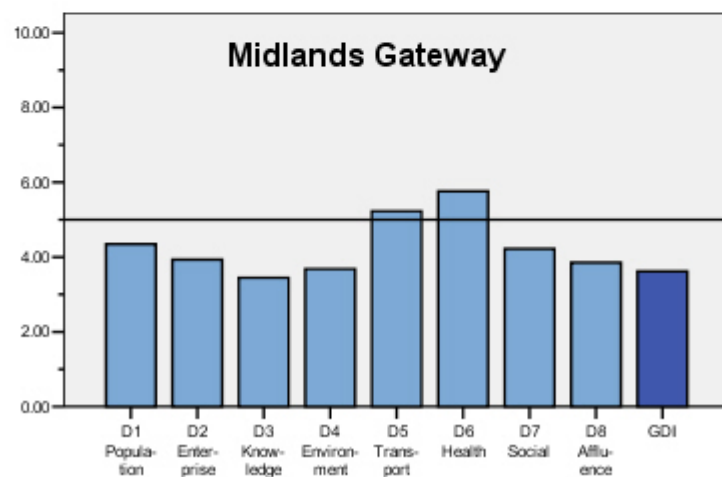
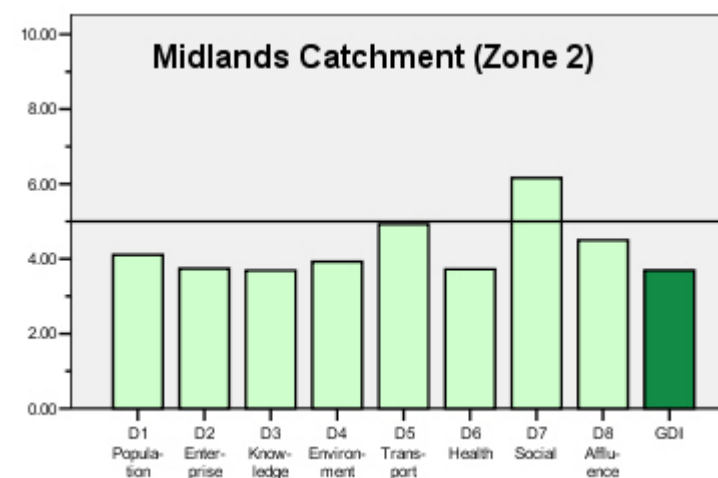
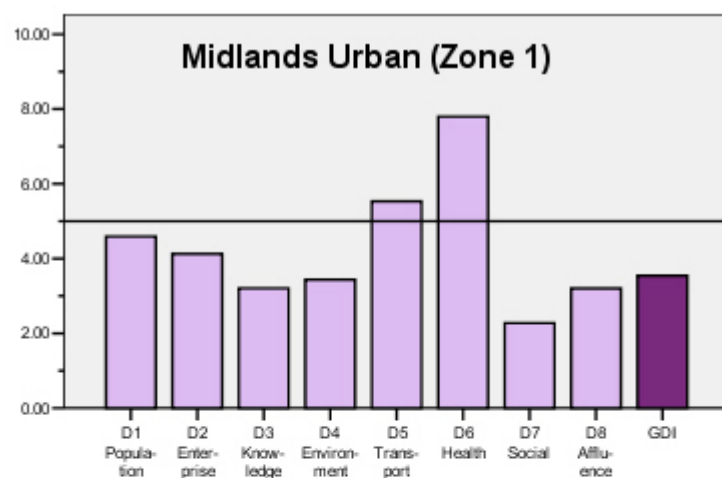
**Zones 1 and 2:** the distinct nature of the Gateway, including absence of a single urban core of scale, means that the Zone GDI scores, and particularly Domains within zones, need to be treated with caution. The reverse pattern of scores in the two Zones in relation to the health and social Domain may be distorted and the overall (combined Zones) average is a better indicator.

**GDI trends:** Zone 2, while well below the national average, is stable over time. The Midlands' Zone 1, however, shows a deterioration over time. Again, this may reflect the fact that this involves really small separate urban cores, rather than a single one as in other Gateways.

**Residents' perceptions:** the perceptions of residents regarding the Gateway as a whole is very close to the national average, with slightly higher awareness levels in Zone 1 and lower ones in Zone 2.

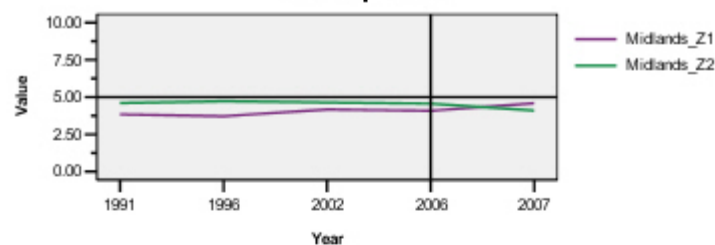
**Conclusions and implications:** like Dundalk and Letterkenny, the Midlands is a newly-designated Gateway which to date is not keeping pace with national average performance, especially in its urban core (or in this case cores). The unique linked nature of the Gateway may explain this. However, if the Gateway is to fulfil its NSS role, socio-economic status of its urban core as captured by the GDI will need to experience a trend change.

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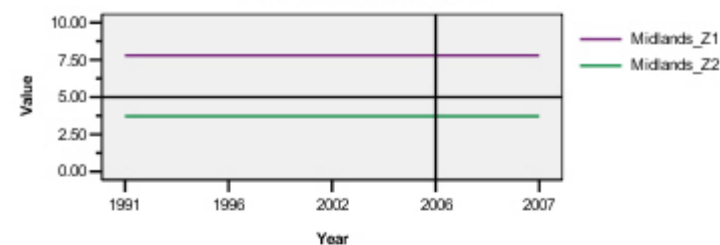


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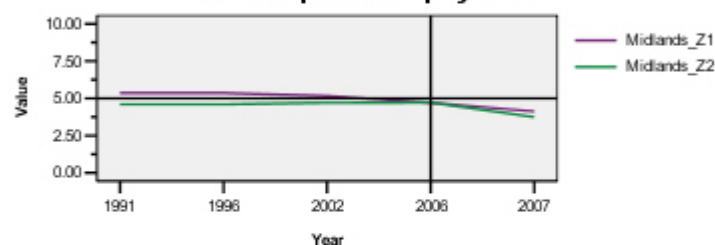
**D1 - Population**



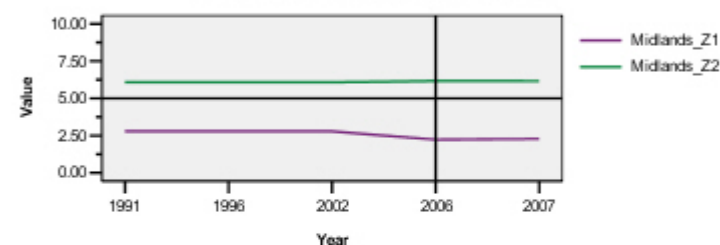
**D6 Health & Wellness**



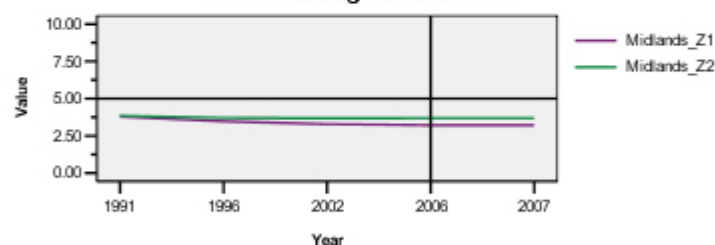
**D2 Enterprise & Employment**



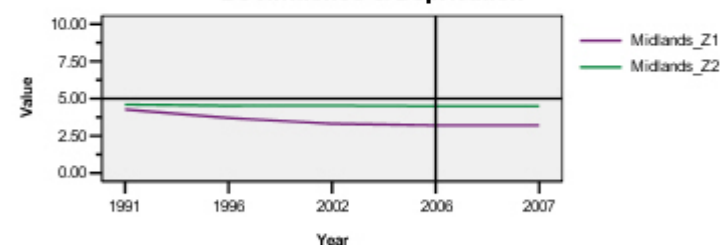
**D7 Social Facilities & Networks**



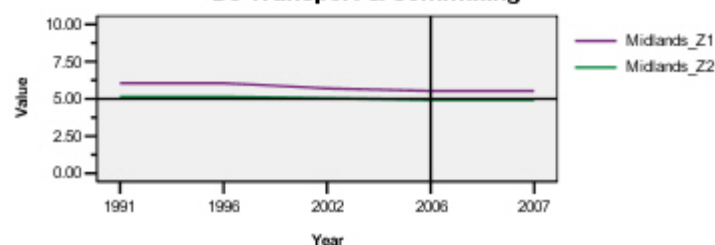
**D3 Knowledge & Innovation**



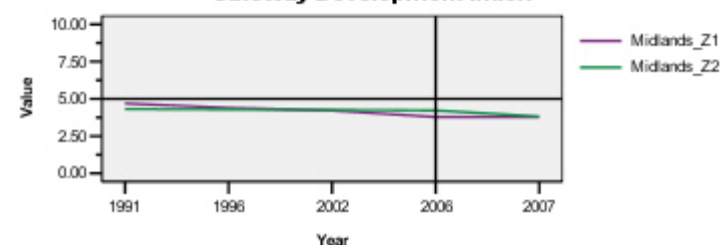
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## 4.4 GDI for Southern and Eastern Region Gateways<sup>24</sup>

### Limerick/Shannon Gateway Development Index



**Overall GDI:** the overall Limerick/Shannon GDI score is **4.7**, i.e. slightly below the national average of 5.

**GDI by Domain:** in the combined Limerick Zones 1 and 2, the Domains with scores at or above the national average are knowledge, health and transport. The rest are somewhat below the national average. However, the difference between Zones in the Gateway is large, so the Domains are more informative at Zone level (see below).

**Zones 1 and 2:** the contrasting performances of Zones 1 and 2 hold the key to Limerick's overall GDI performance. Essentially the overall below-average performance is driven by the poor performance of Zone 1. Limerick's Zone 2 is actually above the national average, both overall and for most Domains.

Limerick Zone 1 scores among the lower Zones on a number of Domains – especially the population, affluence and social Domains. The poor Zone 1 population Domain score reflects relatively poor population growth, and the low social Domain reflects both high crime and low community participation indicators. The environment Domain is an exception with Zone 1 performing better than Zone 2. Zone 2 also has relatively poor drinking water quality.

Zone 2 has an especially high knowledge Domain score, reflecting relatively high levels of third-level education among residents.

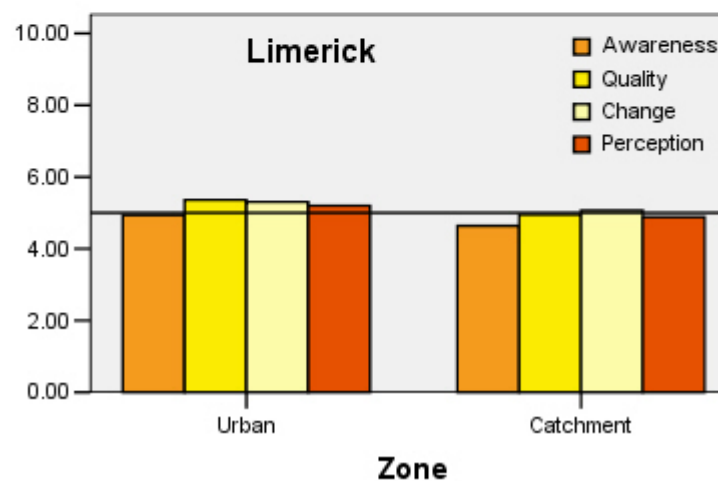
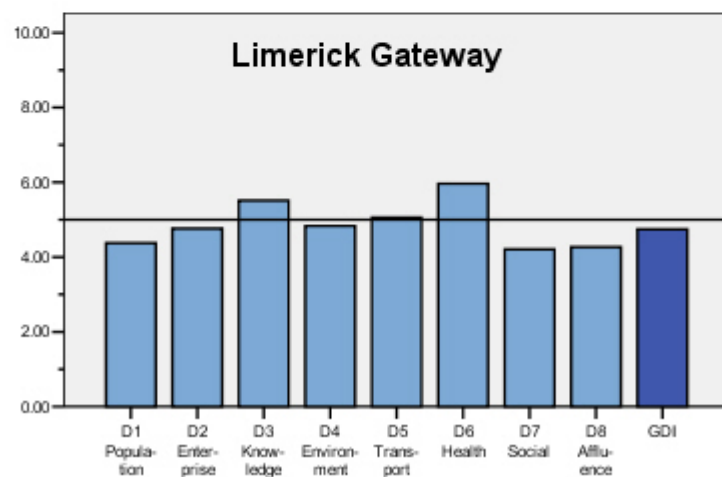
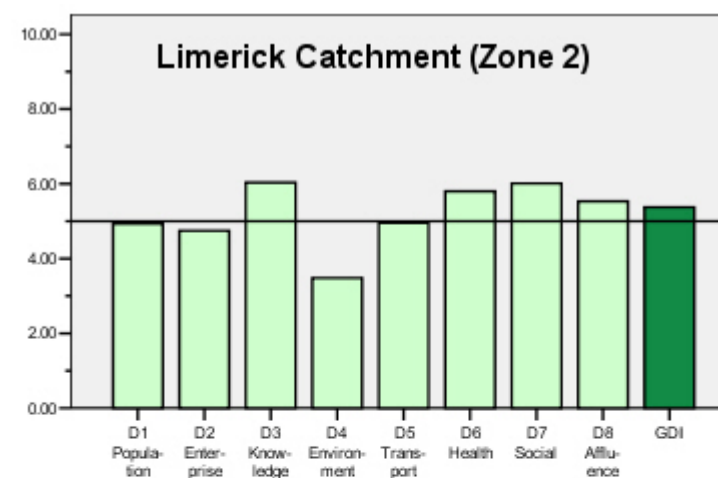
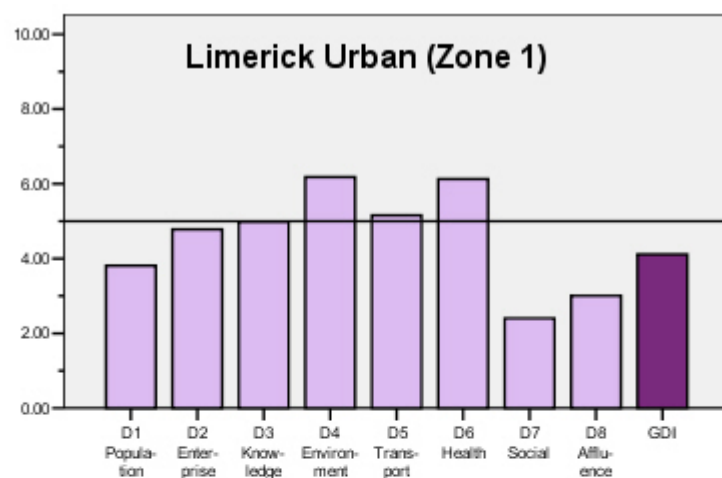
**GDI trends:** trend data show that Limerick's GDI status is long-standing. Furthermore, Zone 1 in particular has been falling further below the national average. The Gateway as a whole therefore cannot progress greatly in GDI terms until the performance of the urban core starts to improve.

**Residents' perceptions:** residents of the Limerick/Shannon Gateway, both Zones 1 and 2, report perceptions of their Gateway which approximate to the average for other Domains. This is also consistent across individual Domains. This suggests a contrast between internal and external perceptions of the Gateway.

**Conclusions and implications:** Limerick's key development challenge as a Gateway is its urban core which lags well behind that of its wider catchment. This is a long-standing structural problem, and the Zone has actually been worsening over time relative to the national average. A concerted and cross-sectoral investment and development programme to address the problems of Limerick City is thus called for, and present proposals for major regeneration is supported by the GDI findings.

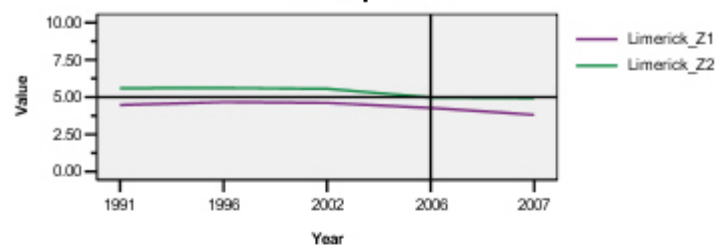
<sup>24</sup> For a summary explanation of the format and structure of these Gateway summaries see Section (4.2).

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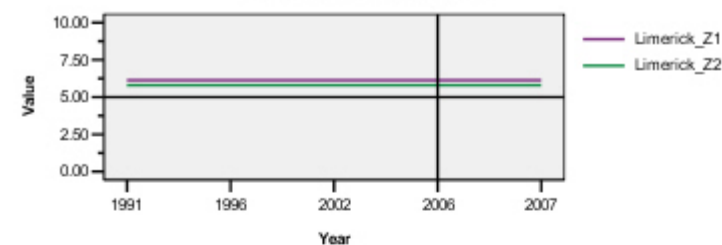


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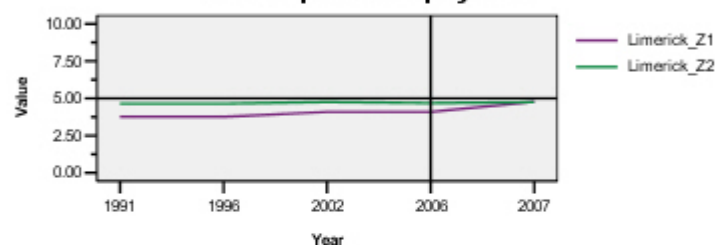
**D1 - Population**



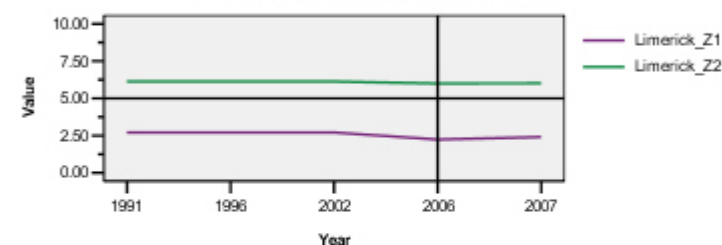
**D6 Health & Wellness**



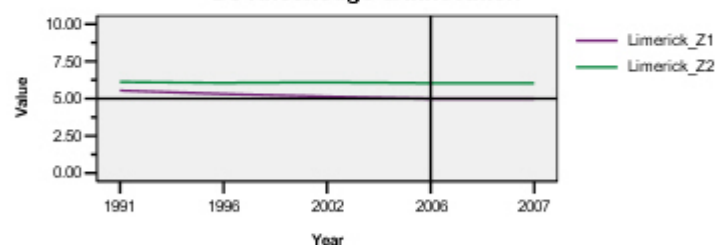
**D2 Enterprise & Employment**



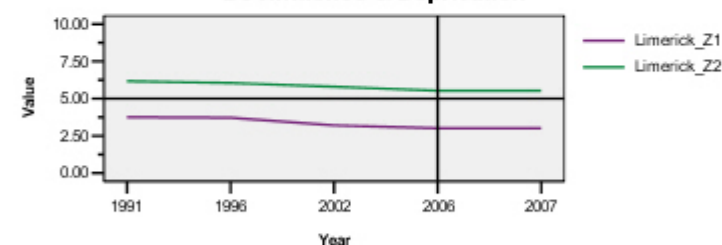
**D7 Social Facilities & Networks**



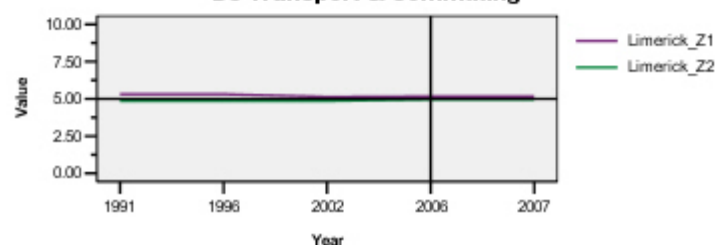
**D3 Knowledge & Innovation**



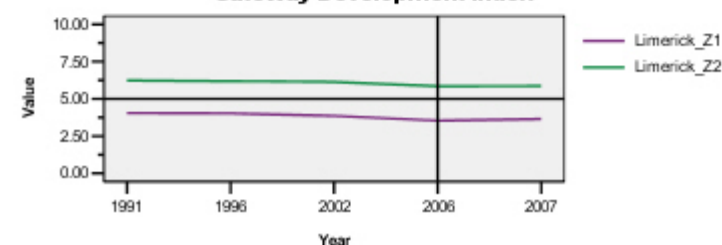
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## Cork Gateway Development Index



**Overall GDI:** Cork Gateway (Zones 1 and 2) has a combined GDI score of **5.8**, well above the national average and the highest score in the present calculations. Central to this is a consistently good score across most Domains and the underlying indicators rather than a mix of high and low scores.

**GDI by Domain:** the GDI scores for the Gateway as a whole by Domain are mostly high, with only transport somewhat below the national average for the Domain.

The knowledge Domain is especially high in the Gateway as a whole, reflecting high levels of “graduate retention” (i.e. return to Cork for work by residents who graduate) and by high third-level R&D earnings per capita. The weakest Domain in Cork – transport – reflects high levels of car dependency among commuters in both Cork Zones, and especially Zone 1.

**Zones 1 and 2:** the consistently high Domain-level performance is largely mirrored in the two individual Zones. Zone 2 is somewhat higher than Zone 1 overall, mainly resulting from higher knowledge, environment and health scores. Zone 2 scores lower on transport and the environment Domains.

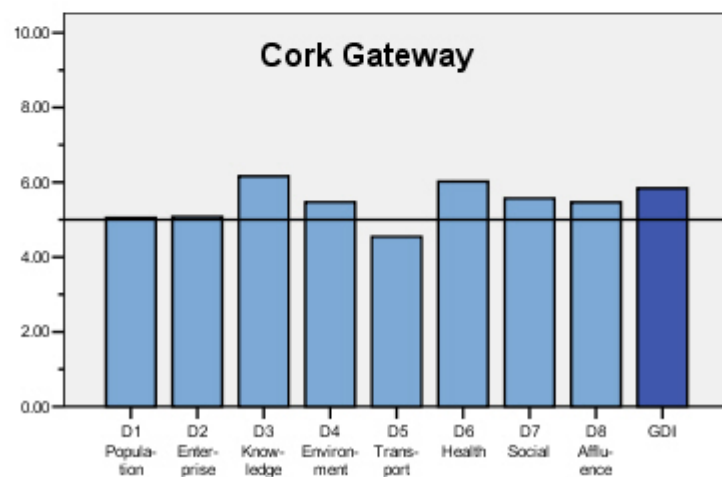
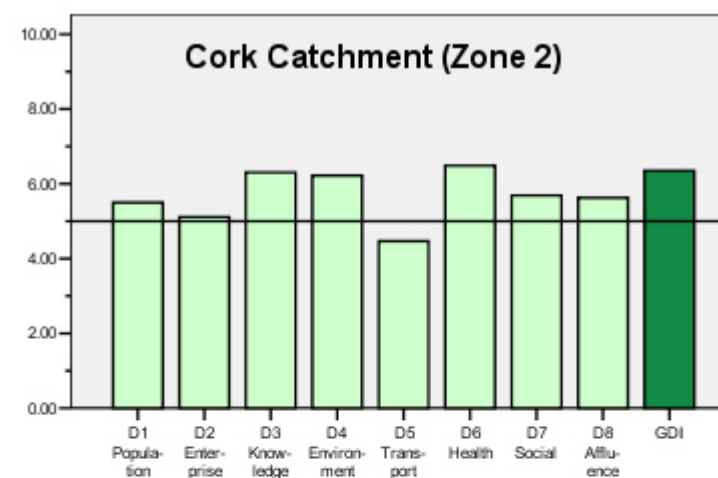
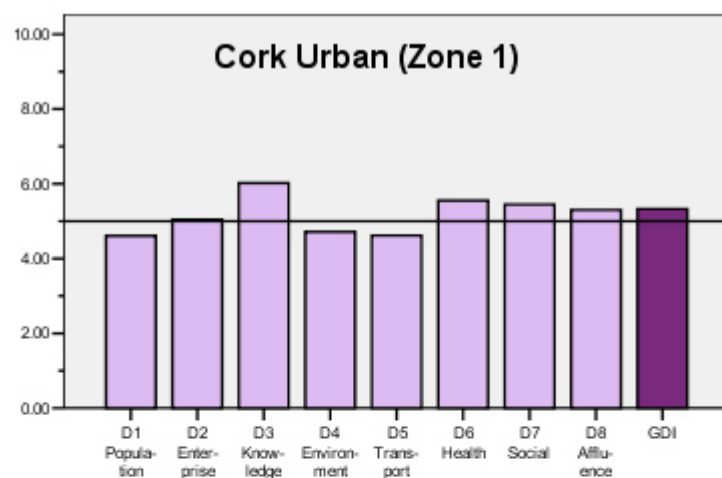
**GDI trends:** the Cork GDI pattern over time relative to the average is largely constant, with little change of position of either Zone, i.e. both have above the national average scores over time, and Zone 2 has consistently outperformed Zone 1.

**Residents’ perceptions:** the distinguishing feature of residents’ perception in the Gateway is that those in Zone 2 have a distinctly lower perception of Zone 1 than do Zone 1 residents (a feature shared with Dublin). This pattern is not evident in most other Gateways. Residents of Zone 1 perceive their Gateway as about national average in quality terms, those resident in Zone 2 see it as somewhat below average. Low perception levels relate in particular to the transport, environment and social Domains. The Cork Zone 1 transport and social Domains also score relatively poorly in the actual GDI.

**Conclusions and implications:** Cork emerges as a solid performer and the highest ranked Gateway. Both Cork Zones are above the national average GDI scores, and the Gateway performs well across all Domains – a consistency that is absent in smaller and newer Gateways. Car-dependency emerges from the GDI as an area of relative weakness in Cork, both in the inner core and the outer catchment.

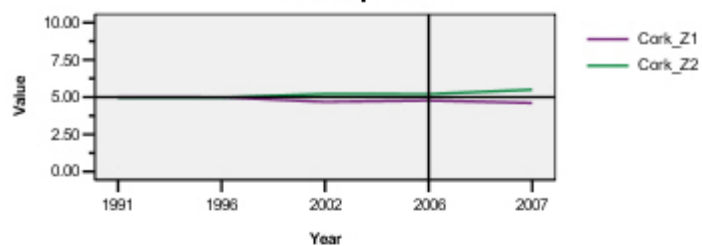
Perceptions of the central core among residents of Zone 2 are less positive than in other Gateways, suggests some issues that Cork authorities may need to explore and address.

PREPARATION OF A GATEWAY DEVELOPMENT INDEX

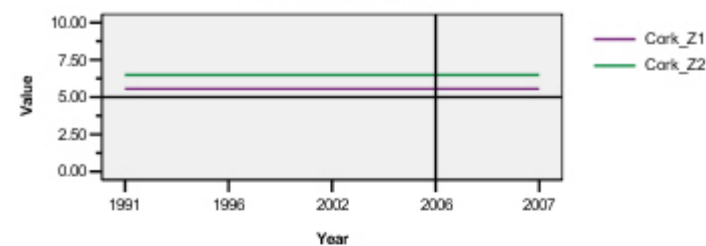


PREPARATION OF A GATEWAY DEVELOPMENT INDEX

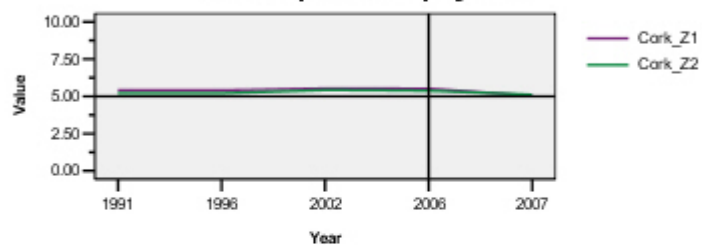
**D1 - Population**



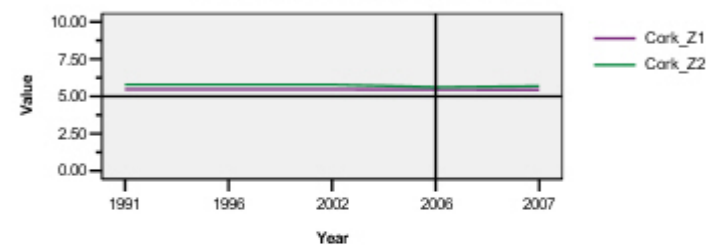
**D6 Health & Wellness**



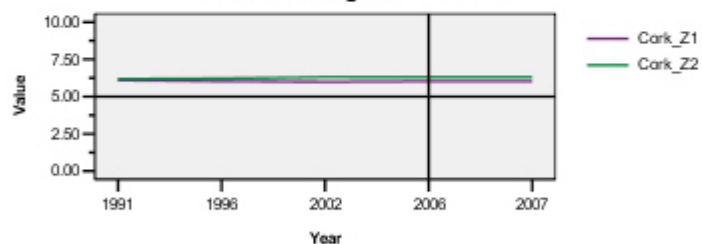
**D2 Enterprise & Employment**



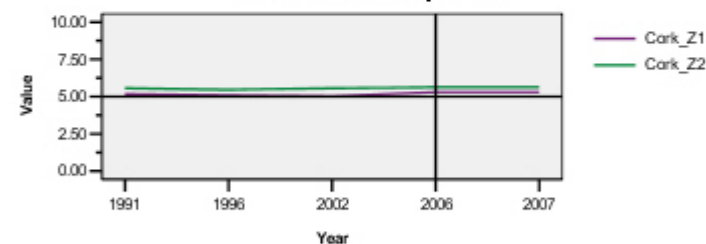
**D7 Social Facilities & Networks**



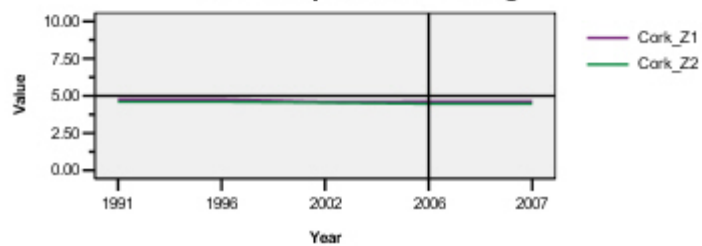
**D3 Knowledge & Innovation**



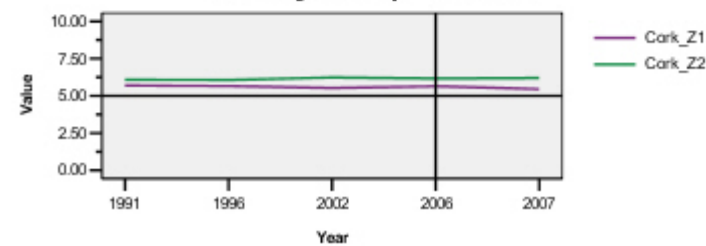
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## Waterford Gateway Development Index



**Overall GDI:** the overall GDI score for Waterford Gateway as a whole is **3.7**, the lowest of the established cities.

**GDI by Domain:** in the case of Waterford Zones 1 and 2 combined, none of the individual Domain-level GDI scores reach the national average. Waterford is particularly low-scoring in relation to the knowledge and enterprise Domains.

Waterford's low enterprise Domain score reflects a relatively low presence of service occupations among residents – a long recognised weakness of Waterford's economic base. The knowledge Domain's score reflects weakness in all the indicators used in the Index to measure the Domain, i.e. adult education levels, return of Waterford graduates to work there, and the level of third-level R&D earnings in the Gateway.

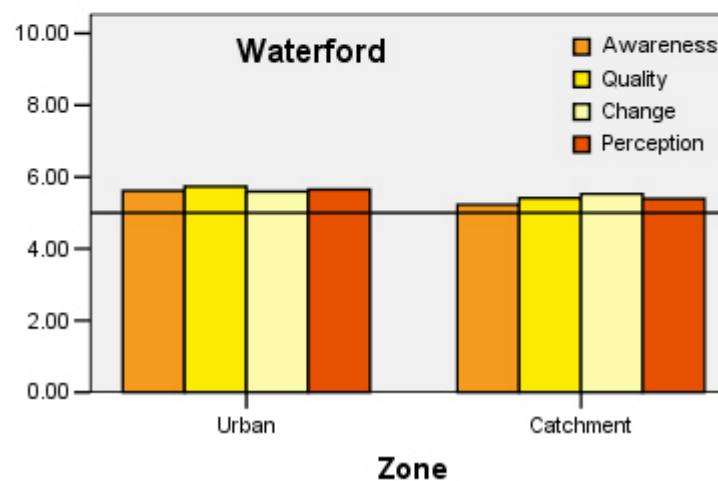
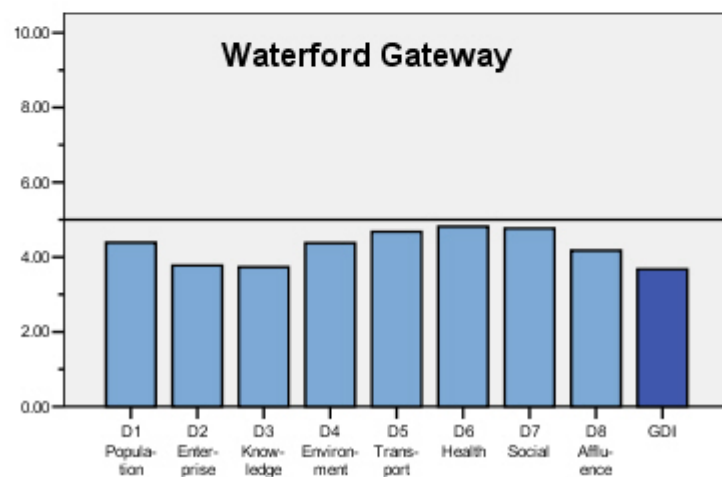
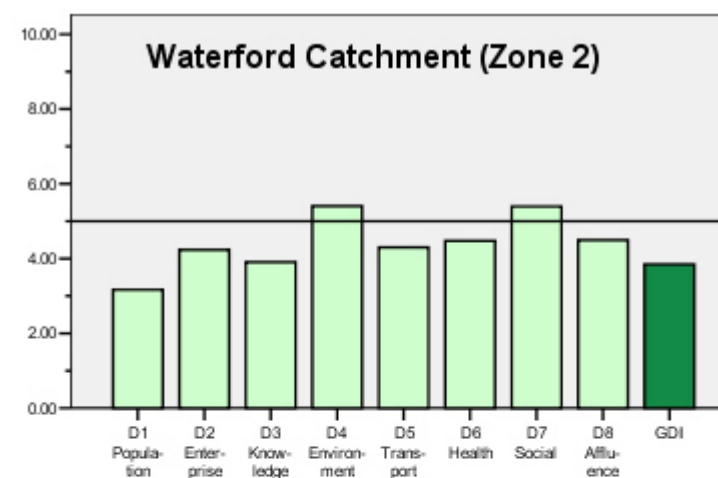
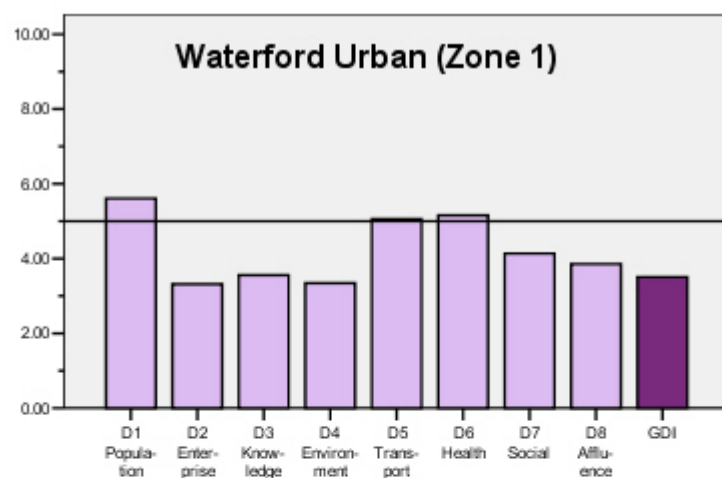
**Zones 1 and 2:** In Zone 2 only the environment and social Domain are above the national average. In Zone 1, the population Domain is relatively high but the area is weak on most other Domains.

**GDI trends:** the status of Waterford Zones 1 and 2 relative to the national average are worsening somewhat over time.

**Residents' perceptions:** residents of both Zone 1 and Zone 2 of the Waterford Gateway have similar perceptions of their Gateway. Both report themselves relatively satisfied with the Gateway urban core. These relatively positive perceptions relate to most Domains.

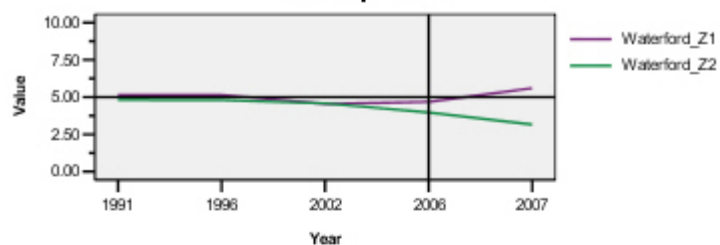
**Conclusions and implications:** Waterford, like Limerick, is an established city but shows a relatively low GDI score. However, unlike in Limerick, Waterford's Zone 2 is also below the national average Zone 2 GDI. So while Limerick is to a degree "saved" by its Zone 2, but Waterford is not. Like Limerick, Waterford's position is also long-standing and needs a trend shift across the whole range of Domains if it is to alter.

PREPARATION OF A GATEWAY DEVELOPMENT INDEX

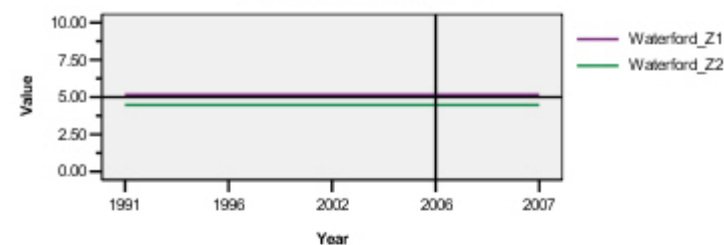


PREPARATION OF A GATEWAY DEVELOPMENT INDEX

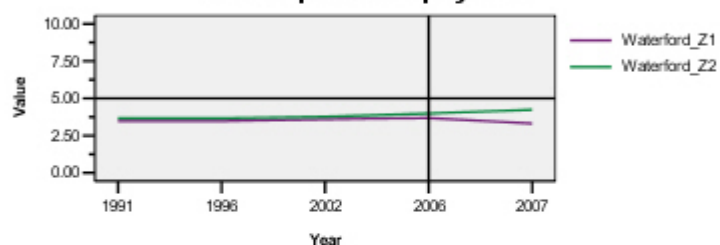
**D1 - Population**



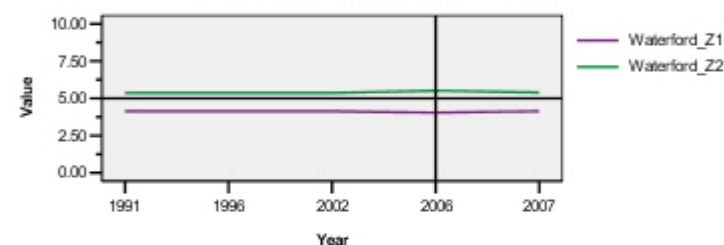
**D6 Health & Wellness**



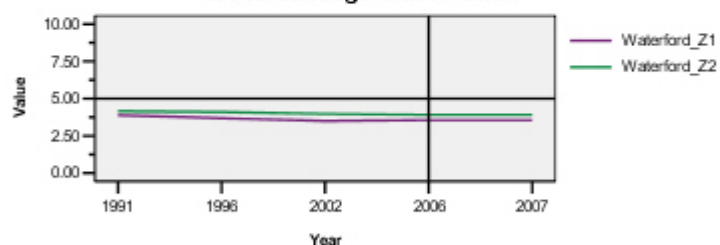
**D2 Enterprise & Employment**



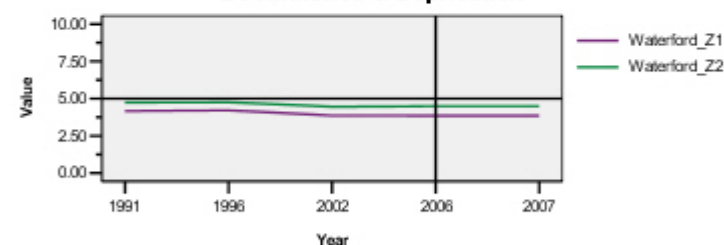
**D7 Social Facilities & Networks**



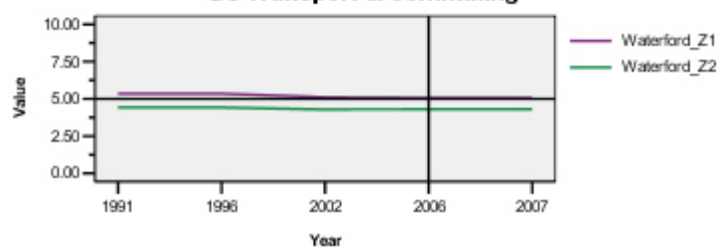
**D3 Knowledge & Innovation**



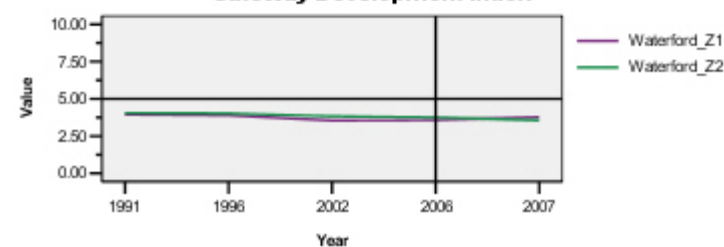
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## Dublin Gateway Development Index



**Overall GDI:** Dublin scores **5.4** on the GDI as a whole, significantly above the national average (5.0). It also, of course, plays a relatively large role in determining the level of that average.

**GDI by Domain:** Dublin also displays a strong performance by Domain, although less consistently so than Cork. The enterprise and knowledge Domains are well above the national average. Especially strong is Dublin's ability to retain residents who graduate from third-level education. This in turn reflects its status as a strong centre for knowledge-based enterprise.

Weaknesses are the social and health Domains, which are below the national average, reflecting relatively high crime rates and a large population relative to primary health provision.

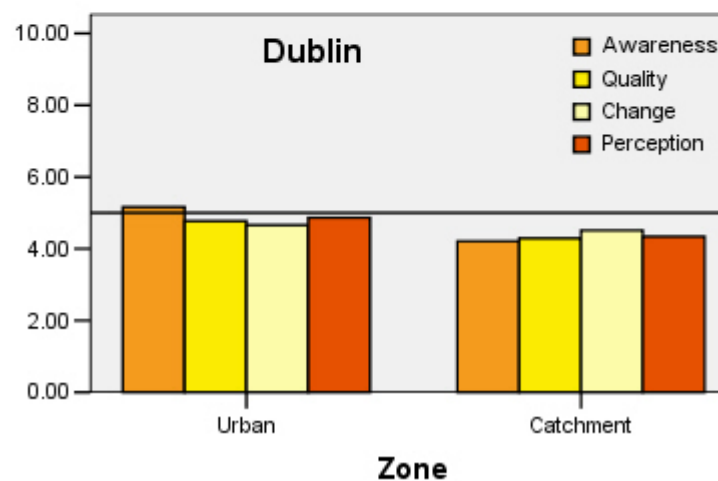
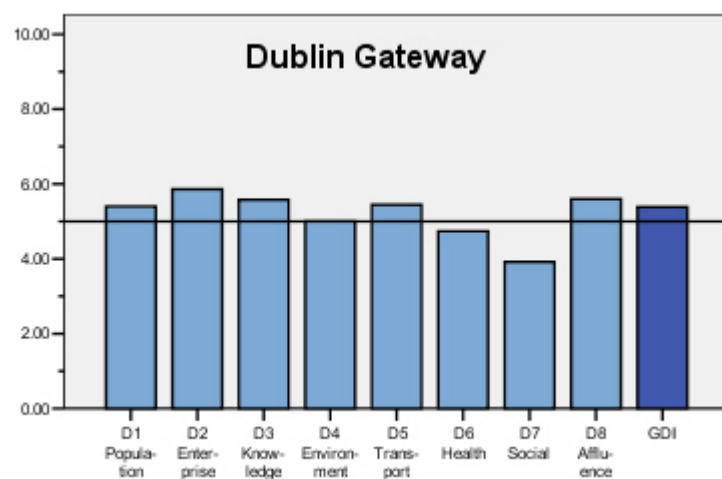
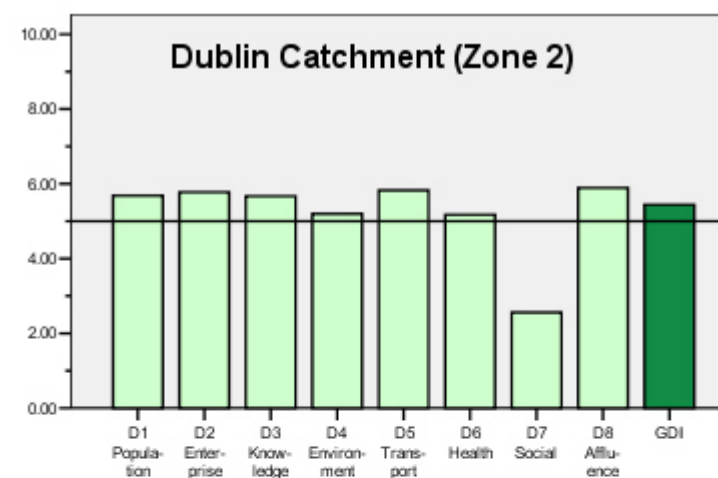
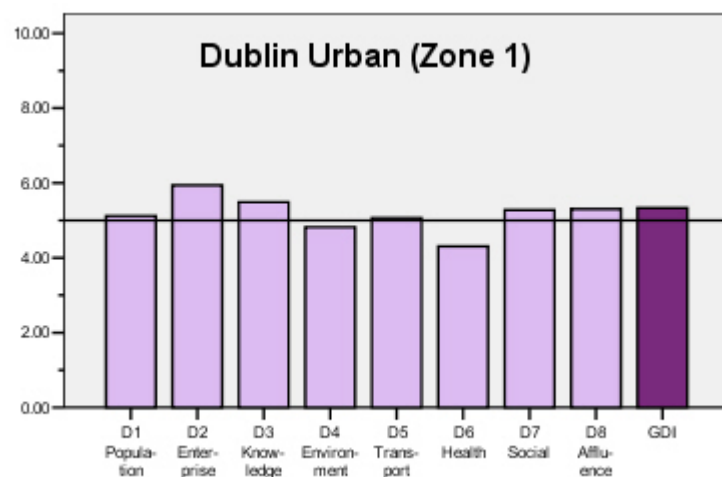
**Zones 1 and 2:** overall, the GDI performance of Zones 1 and 2 in Dublin are quite similar. However, there are significant differences in Domain scores within them. In particular, Dublin's Zone 2 reveals a quite poor performance in relation to the social Domain with relatively high crime rates and low levels of social participation. This reflects the fact that Dublin's Zone 2 has many urban areas akin to Zone 1 in smaller Gateways.

**GDI trends:** Dublin's Zone 1 has been around the national average over time, and has remained steadily at this level. Zone 2 is consistently just above the national average, although with some slight decline in the status over time.

**Residents' perceptions:** A contrast is evident in Dublin regarding the perceptions of Zone 1 and 2 residents (a feature shared with Cork). Dublin's Zone 1 residents have a perception of their Gateway which is broadly similar to the national average. Zone 2, in contrast, has a distinctly lower level of awareness and a lower perception of its quality. This gap probably reflects challenges in responding to the rapid development of some areas close to the City. Particularly low perceptions are held regarding areas of education, transport, and health. The latter two are consistent with the actual GDI scores.

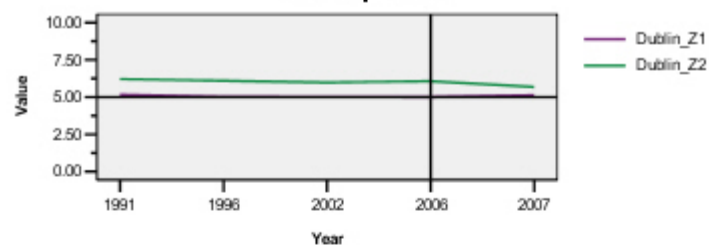
**Conclusions and implications:** overall, Dublin ranks third after Galway and Cork on the GDI Index calculations. A particular challenge facing Dublin is in attractiveness of the social Domain in Zone 2, including relatively high crime levels.

PREPARATION OF A GATEWAY DEVELOPMENT INDEX

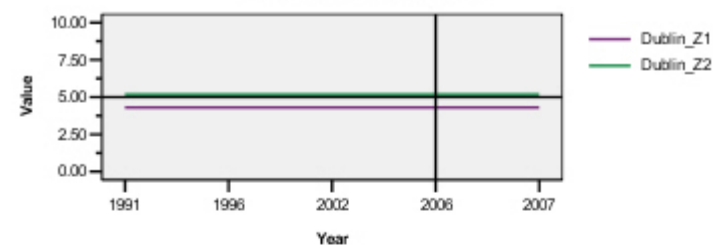


PREPARATION OF A GATEWAY DEVELOPMENT INDEX

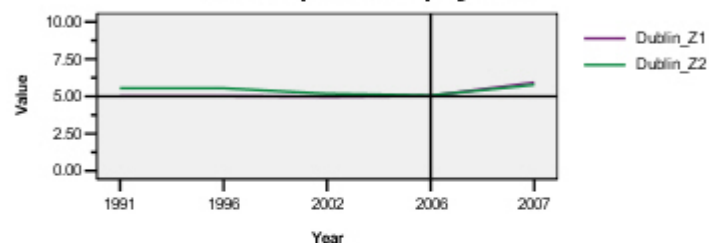
**D1 - Population**



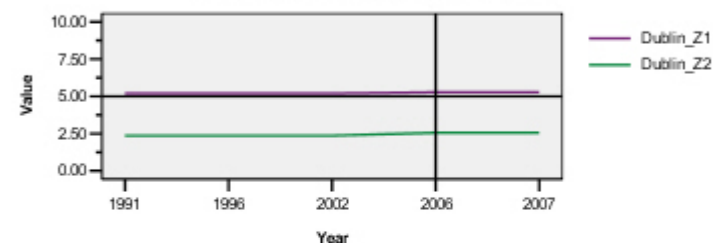
**D6 Health & Wellness**



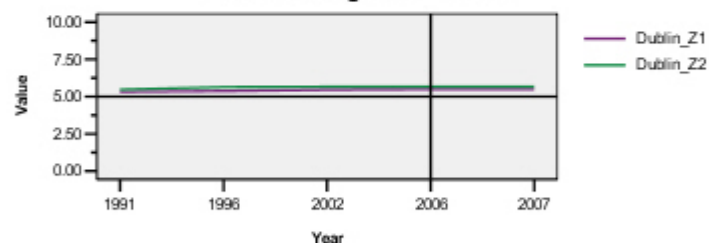
**D2 Enterprise & Employment**



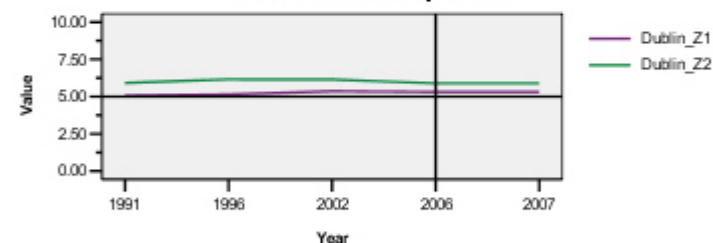
**D7 Social Facilities & Networks**



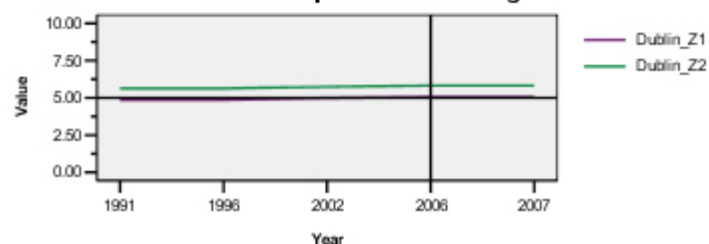
**D3 Knowledge & Innovation**



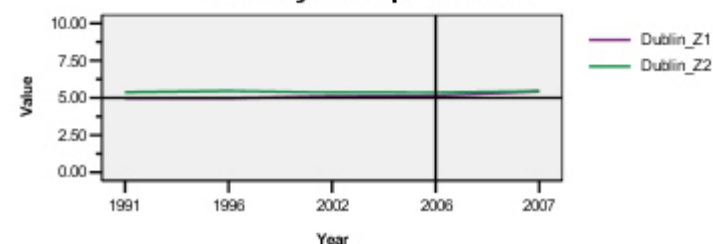
**D8 Affluence & Deprivation**



**D5 Transport & Commuting**



**Gateway Development Index**



## 5. Conclusions and Recommendations

### 5.1 Introduction

This Chapter sets out conclusions and recommendations drawn from the previous Chapters. The conclusions focus on the technical aspects of preparing and further developing the Index.

### 5.2 The Gateway Development Index – Lessons from Stages 1 and 2

A number of lessons can be drawn from the experience of the work programme that we have undertaken:

- the experience confirms that preparation and use of a Gateway Development Index is quite feasible and possible;
- preliminary results also confirm that the Index broadly conforms with expectations about both current status and past trends in individual Gateways. It would be a matter of concern if startlingly new counter-intuitive patterns were emerging. It is also evident that in addition to confirming existing expectations, an index can throw new light on a number of these;
- the project identified considerable interest of many public bodies in sharing spatial datasets and has demonstrated the potential of spatial datasets to improve our understanding of the performance of places over time. However, significant technical and operational obstacles remain in integrating new datasets and expanding the scope of the Gateway Development Index into, for example, the enterprise development area. For the future, ongoing and accelerated implementation of the EU INSPIRE Directive will considerably ease the obstacles described above and would be in line with the Government's objectives (such as in the recent Task Force Report on the Public Service) to support better data sharing between public bodies in developing better and evidence-supported policies;
- also evident is the fact that there is considerable interest and goodwill in many of the public sources of this data that it be utilised, and that any obstacles to this utilisation be overcome;
- in the short-term there are a number of specific areas for additional potential usable data which we feel can be usefully pursued immediately (in early 2009);
- more generally, activities of the kind involved in this process would be greatly eased if more progress could be made on the existing commitments (under the EU INSPIRE Directive) to make the databases of public bodies more readily available on a spatial basis. The progress made here with sources such as crime and health data demonstrates that, with leadership and encouragement, traditionally perceived obstacles can be overcome.

## 5.3 Potential Additional Short-term Sources

### 5.3.1 Immediate Potential

Potential additional data sources available in the short-term are:

- geo-coded data on local social infrastructure is potentially accessible from Fáilte Ireland. However, the organisation needs to undertake additional work and deliberation before it can take a definitive decision to release this data;
- in the health sector HSE data on two useful indicators – mortality and birth weights – are potentially available, the former in 2009.

### 5.3.2 Other Important Sources

There are also a number of other series of data that can be pursued in the slightly longer-term as they may have the potential to also provide useful additional or alternative information sources. These include:

- potential sources of local area or geo-coded economic output data. Possible sources here are ESRI, research being done by UCC for Atlantic Philanthropies, and the enterprise development agencies (although their coverage is only of grant-aided enterprise);
- the Local Authority Service Indicator system is also a source of data on local amenities and facilities;<sup>25</sup>
- additional knowledge-economy indicators may be available from third-level institutions.

## 5.4 Recommendations Regarding GDI Stages 3 and 4

- (1) this process has proven that the construction of a Gateway Development Index is feasible and that its findings can be considered to be both reliable and valuable. It is therefore recommended that the findings of this Index study and subsequent Indices should be fed into the NSS Monitoring System and adopted as a tool of analysis for evidence-based regional policy making across relevant Government departments, state agencies and other bodies;
- (2) subject to resource availability Stage 3 should commence early in 2009, rather than waiting until 2010. This is because short-term follow-up is desirable vis-à-vis items identified in Section 5.3.1 in order to maintain the momentum and “deliver” data sources that have already been activated, and also to avoid disappointment among organisations which have already gone to some trouble to support the GDI exercise;
- (3) the full underlying dataset (see Annex 2) should be updated at end-2009, again rather than waiting until 2010;

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<sup>25</sup> Local Government Management Services Board, *Local Authority Performance Indicators*, 2008.

- (4) while the perception survey provided valid complementary data to the Index, it is recommended that in the immediate rounds of updating, investment would probably be better made in drawing additional existing data sources into the process rather than conducting additional perception surveys;
- (5) the survey output from the present project (see Annex 1) has potential uses beyond the immediate composite use made here, and may constitute one or more separate deliverables for the Assemblies;
- (6) the focus on utilising existing large-scale, quality-assured public databases should remain the focus of data collection and utilisation. More ad hoc data gathering and sub-optimal index construction should probably be avoided as unnecessary;
- (7) means of external access to the GDI information beyond conventional written reports (such as this) should be considered, e.g. interactive online access. Essentially an Index and database of this variety is as much a resource as a one-off published product
- (8) there is a need to address the particular issues of the Border Region Gateways (Sligo, Letterkenny and Dundalk). Absence of Northern Ireland data from the GDI analysis to date runs the risk that the results for these Gateways, especially Letterkenny, may be distorted. However, addressing this issue requires both considerable data challenges and also issues regarding the spatial conceptualisation of these two Gateways;
- (9) the matter of the institutional capacity of Gateways is an important one – highlighted inter alia in the Gateway development literature. Means of monitoring this systematically is a matter which merits focused attention beyond the initial (and unsuccessful) attention it has been given here;
- (10) the commitment under the EU INSPIRE Directive should be addressed more dynamically by the responsible lead Department (DoEHLG), jointly with its relevant counterpart Departments and agencies, in the context of reinvigorated joint working on cross-departmental issues.

## Annexes

## **Annex 1 Survey Questionnaire and Results**

The survey of Gateway residents' perceptions of their Gateway has been described in the Main Report (see Section 2.3.5), and the results have been presented in summary form (see Chapter 4, esp. Section 4.2.4).

This Annex presents the questionnaire used, the full results by question, and the number of respondents by sampling point.

Responses to questions are shown separately for residents in Zones 1 (orange) and 2 (yellow) of the Gateway (urban core and catchment). It should be noted that in both cases the perceptions sought and reported on relate to Zone 1.

In the results of the question two types of scales are used:

- A scale 0-100% where numbers relate to the percentage of respondents who replied, e.g. "yes" to a question;
- A scale of 1-10 where numbers are the mean (average) of the 1-10 ratings sought from respondents in the question.

## Survey Questionnaire

### Perception Survey of Gateway Locations

Good morning, afternoon, evening etc. My name is ..... from Quota Search, an independent market research company, working on behalf of Fitzpatrick Associates. We are carrying out a survey of residents of this area and would be grateful for your help in answering some questions.

1	SCREENING QUESTIONS RESPONDENT	PLEASE HAND MAP TO	
1.1	Do you currently live in the pink or green areas on this map? (REFER TO MAP) If no – recruit substitute. Do not count towards quota	Yes ..... 1 No ..... 2	Continue Close
1.2	If yes, “in which one of the two areas (pink or green) do you live?” (REFER TO MAP)	Pink Area (Gateway)... 1 Green Area (wider area) ..... 2	

#### **PLEASE READ OUT TO YOUR RESPONDENT:**

**In the National Spatial Strategy and the National Development Plan the government has designated nine locations as “Gateways”. This means they should act as a lead location in stimulating economic and social development in their wider surrounding regions. The government is also committed to investing appropriately in these locations in order to help them to fulfil this role.**

2	Awareness of the “Gateway” idea		
2.1	Were you already aware that _____ is a designated “Gateway”?	Yes ..... 1 No ..... 0	Continue Continue

2.2	Do you see it as a good idea:	Yes	No	D/K
	(a) for the city/town itself?	1	0	9
	(b) for the surrounding region?	1	0	9
2.3	Do you think it is important?	1	0	9
2.4	Do you think it has had any practical significance to date?	1	0	9

**Read out – “PLEASE ANSWER ALL OF THE FOLLOWING QUESTIONS IN RELATION TO THE PINK ZONE”.**

**INTERVIEWER - POINT OUT THE PINK AREA ON THE MAP YOU HAVE HANDED TO YOUR RESPONDENT.**

3	Business and Employment in the Gateway (PINK ZONE)												
3.1	<b>SHOW RATING CARD AND READ OUT</b> On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate the Gateway (PINK ZONE) as a <b>READ OUT ↓</b>												
	I. Location for business	01	02	03	04	05	06	07	08	09	10	DK	
	II. Location for Employment	01	02	03	04	05	06	07	08	09	10	DK	

<b>4</b>	<b>Education, Skills, and Training Provision in the Gateway (PINK ZONE)</b>												
4.1	<b>SHOW RATING CARD AND READ OUT</b> On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate the provision of the following within the Gateway (PINK ZONE)? <b>READ OUT ↓</b>												
	1. Primary education	01	02	03	04	05	06	07	08	09	10	DK	
	2. Secondary education	01	02	03	04	05	06	07	08	09	10	DK	
	3. Third-level education	01	02	03	04	05	06	07	08	09	10	DK	
	4. Training	01	02	03	04	05	06	07	08	09	10	DK	
4.2	Over the last five years do you think the provision for the following Gateway [Pink Zone] has improved, stayed the same or declined? <b>READ OUT ↓</b>				Improved		Stayed the same		Declined		Don't know		
	1. Primary education				1		2		3		9		
	2. Secondary education				1		2		3		9		
	3. Third-level education				1		2		3		9		
	4. Training				1		2		3		9		
<b>5</b>	<b>Physical Environment in the Area in the Gateway (PINK ZONE)</b>												
5.1	<b>SHOW RATING CARD AND READ OUT</b> On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate the overall physical environment within the Gateway (PINK ZONE)?												
	Overall environment rating	01	02	03	04	05	06	07	08	09	10	DK	
5.2	Over the last five years, in your view, do you think the physical environment has improved, stayed the same or declined regarding.....?				Improved		Stayed the same		Declined		Don't know		
	<b>READ OUT ↓</b>												
	1. Transport Infrastructure				1		2		3		9		
	2. Traffic Congestion				1		2		3		9		
	3. Air Quality				1		2		3		9		
	4. Litter				1		2		3		9		
	5. ICT Generally				1		2		3		9		
	6. High Speed Broadband				1		2		3		9		

6	<b>Services in the Gateway (PINK ZONE)</b>											
6.1	<b>SHOW RATING CARD AND READ OUT</b> On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate the following services in the Gateway (PINK ZONE)? <b>READ OUT</b> ↓											
	1. public transport	01	02	03	04	05	06	07	08	09	10	DK
	2. health services	01	02	03	04	05	06	07	08	09	10	DK
	3. other public services	01	02	03	04	05	06	07	08	09	10	DK
	4. shopping	01	02	03	04	05	06	07	08	09	10	DK
	5. recreation	01	02	03	04	05	06	07	08	09	10	DK

6.2	Over the last five years do you think the following services have improved, stayed the same or declined? <b>READ OUT</b> ↓	Improv ed	Stayed the same	Decline d	Don't know
	1. public transport	1	2	3	9
	2. health services	1	2	3	9
	3. other public services	1	2	3	9
	4. shopping	1	2	3	9
	5. recreation	1	2	3	9

7	<b>Health and Well-being in the Gateway (PINK ZONE)</b>											
7.1	<b>SHOW RATING CARD AND READ OUT</b> On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate residents' level of general health/well-being in the Gateway (PINK ZONE)?											
	Health and Well-being	1	2	3	4	5	6	7	8	9	10	DK

7.2	Over the last five years, in your view, do you think health and well-being has improved, stayed the same or declined?	Improved	Stayed the same	Declined	Don't know
	Health and Well-being	1	2	3	9

8	Social Facilities/Supports in the Gateway (PINK ZONE)												
8.1	SHOW RATING CARD AND READ OUT On a scale of 1 – 10 where 1 means very negative and 10 means very positive how would you rate the level of the following social facilities available in the Gateway (PINK ZONE)? <b>READ OUT</b> ↓												
	1. Sport	1	2	3	4	5	6	7	8	9	10	DK	
	2. Entertainment	1	2	3	4	5	6	7	8	9	10	DK	
	3. Parks	1	2	3	4	5	6	7	8	9	10	DK	
	4. Libraries	1	2	3	4	5	6	7	8	9	10	DK	
	5. Arts/culture	1	2	3	4	5	6	7	8	9	10	DK	

8.2	Over the last five years do you think provision for the following social facilities has improved, stayed the same or declined? <b>READ OUT</b> ↓	Improved	Stayed the same	Declined	Don't know
	1. Sport	1	2	3	9
	2. Entertainment	1	2	3	9
	3. Parks	1	2	3	9
	4. Libraries	1	2	3	9
	5. Arts/culture	1	2	3	9

8.3	How would you rate the level of local social support/ networking in the Gateway (PINK ZONE) on a scale of 1-10 where 1 means very negative and 10 means very positive?	1	2	3	4	5	6	7	8	9	10	DK
-----	--	---	---	---	---	---	---	---	---	---	----	----

8.4	Over the last five years do you think this has improved, stayed the same or declined?	Improved	Stayed the same	Declined	Don't know
	Local social support/ networking	1	2	3	9

9	<b>Institutional Environment in the Gateway (PINK ZONE)</b>	Yes	No	D/K
9.1	Do you think there is identifiable leadership of the Gateway (PINK ZONE) as a whole?			
	(a) At local authority level	1	0	9
	(b) Other level e.g. community	1	0	9

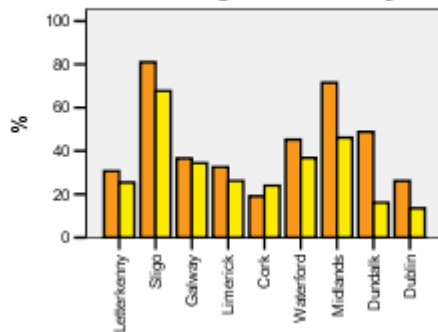
<b>10</b>	<b>Overall</b>												
10.1	On a scale of 1 – 10 where 1 = disagree completely and 10 =agree completely, do you agree or disagree with the following statements about the Gateway (PINK ZONE) READ OUT ↓												
1	This Gateway is an attractive place to live	1	2	3	4	5	6	7	8	9	10	DK	
2	This Gateway is an attractive place to work	1	2	3	4	5	6	7	8	9	10	DK	
3	This Gateway is a dynamic place	1	2	3	4	5	6	7	8	9	10	DK	
4	This Gateway is a place well equipped for the future	1	2	3	4	5	6	7	8	9	10	DK	

<b>Gender</b> Male 1      Female 2		<b>Respondent is:</b> Working full time ..... 1 Part time ..... 2 Unemployed..... 3 Student ..... 4 Full time in the home..... 5 Retired ..... 6 Record farmers as working full or part-time		<b>Occupation of C.I.E.</b> ..... ..... <b>Social Class</b> ABC1..... 1 C2 ..... 2 DE ..... 3 F ..... 4	
<b>Age</b> 16 – 24..... 1 25 - 44 ..... 2 45+ ..... 3					
Gateway No		Zone No		Area No	
Interviewer ..... Date.....					

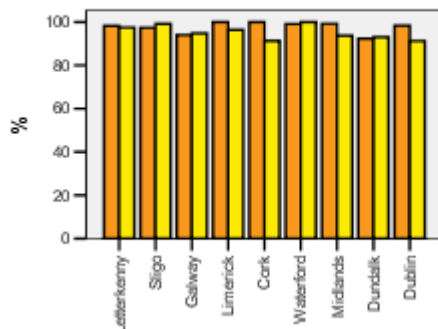
## Survey Results

### Q2: Gateway Awareness

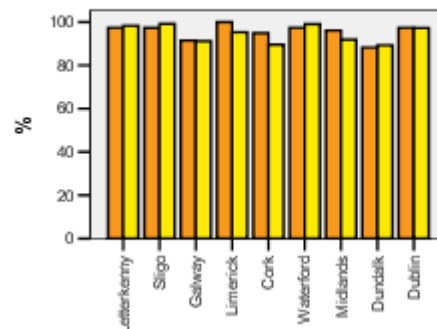
**Were you already aware that [your area] is designated Gateway?**



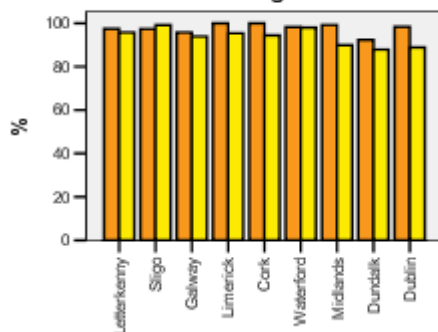
**Do you see it as a good idea for the city/town itself?**



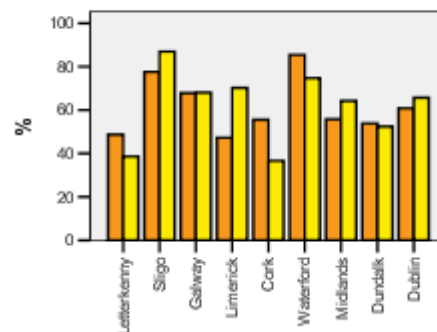
**Do you think it is important?**



**Do you see it as a good idea for the surrounding region?**

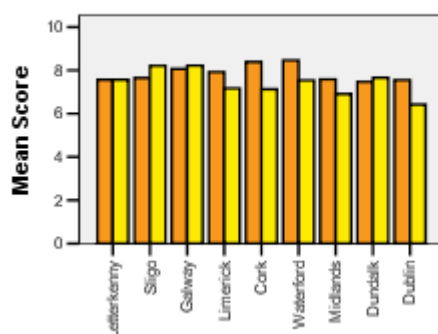


**Do you think it has had any practical significance to date?**

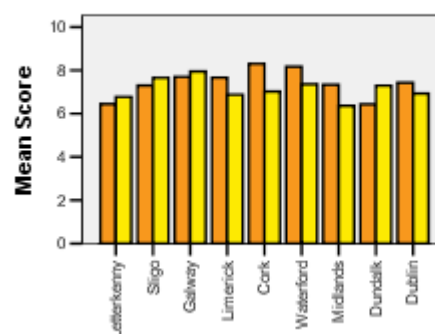


### Q3: Business and Employment

**Quality as location for business**



**Quality as location for employment**



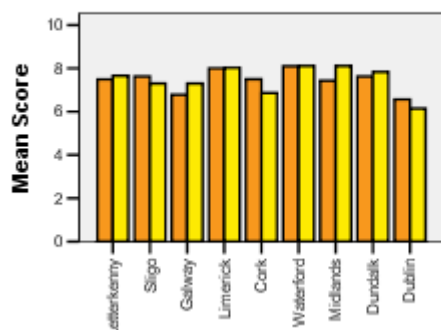
#### Note on interpreting the Survey Results:

Each of the following graphs shows either the percentages responding with yes or the average score given in response to the question asked.

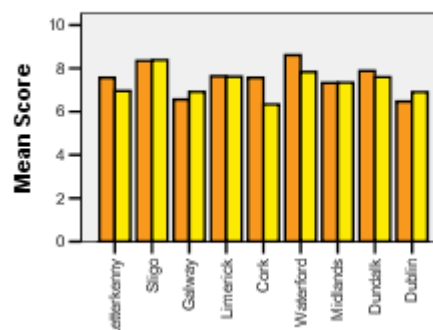
The results are shown for each of the Gateways' urban area (Zone 1 – left bar) and catchment area (Zone 2 – right bar).

## Q4: Education, Skills and Training

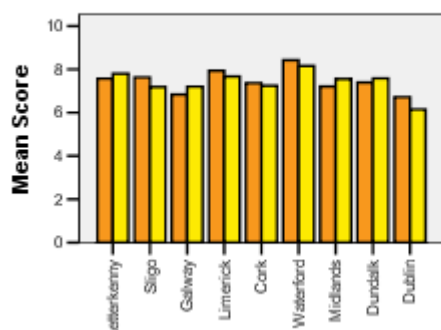
Quality of primary education



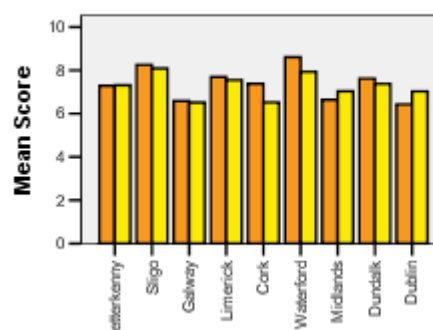
Change in primary education



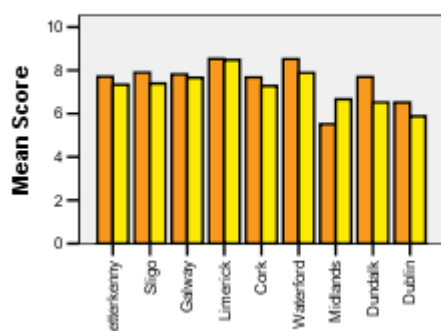
Quality of secondary education



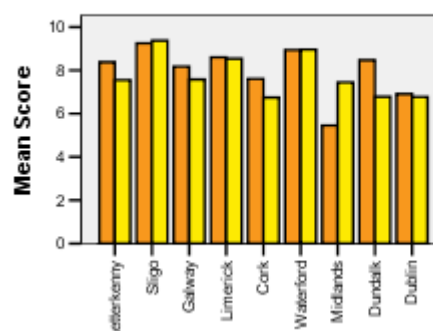
Change in secondary education



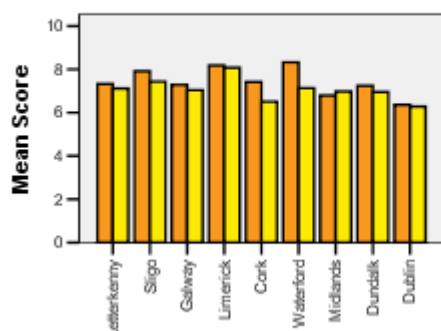
Quality of third-level education



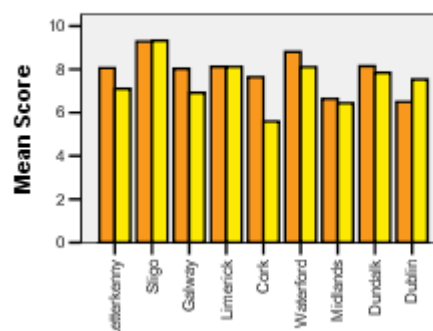
Change in third-level education



Quality of training

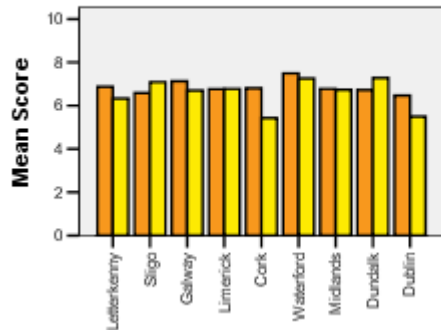


Change in training

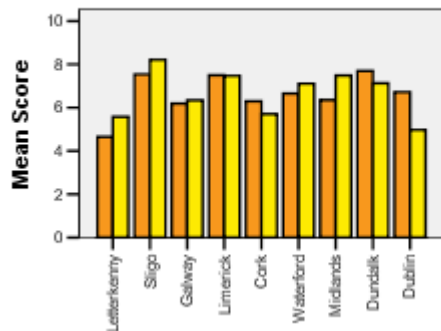


## Q5: Physical Environment – Level and Change

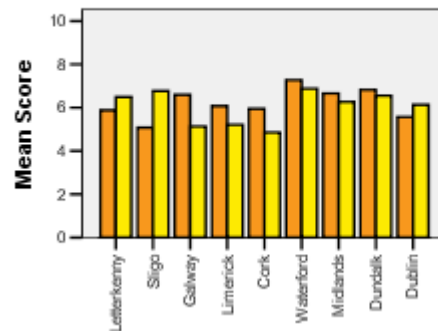
Overall environment rating



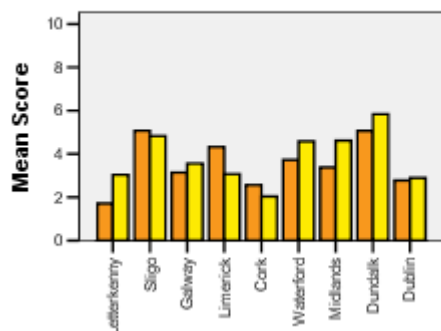
Change in transport infrastructure



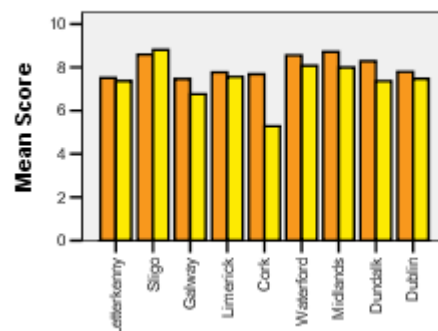
Change in litter



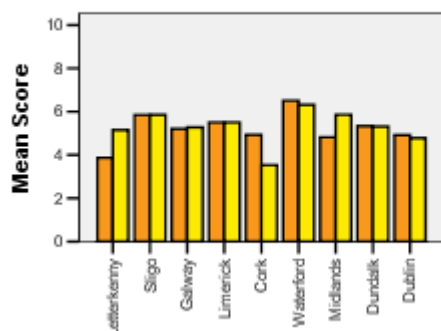
Change in traffic congestion



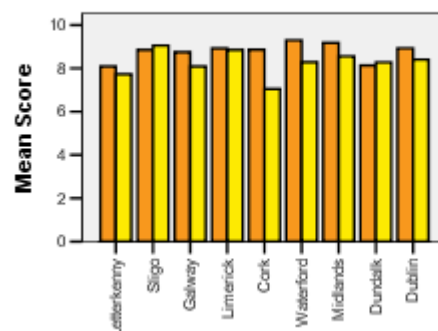
Change in ICT generally



Change in air quality

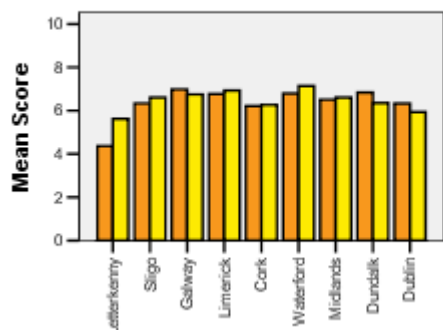


Change in high speed broadband

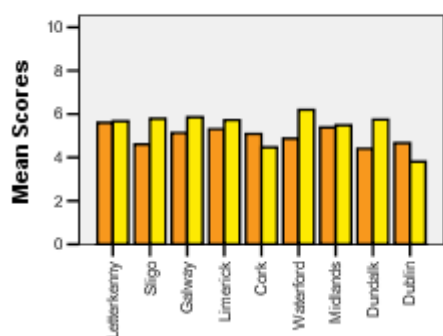


## Q6: Services - Level

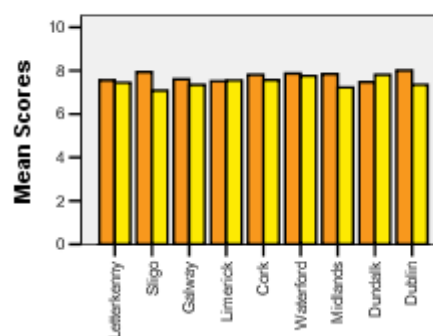
**Quality of public transport**



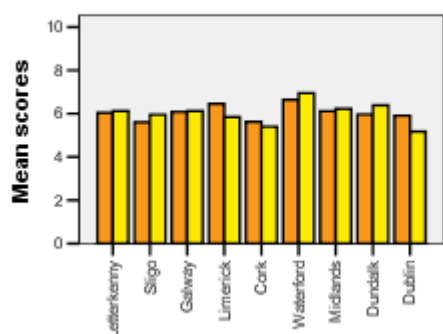
**Quality of health services**



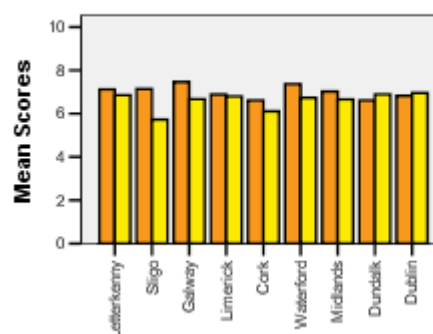
**Quality of shopping**



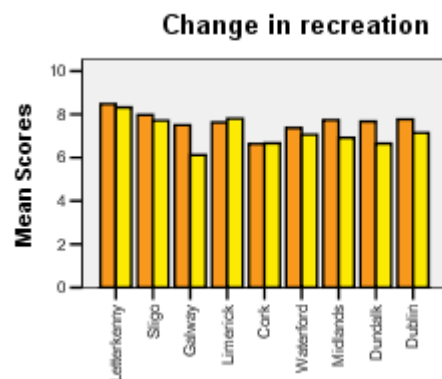
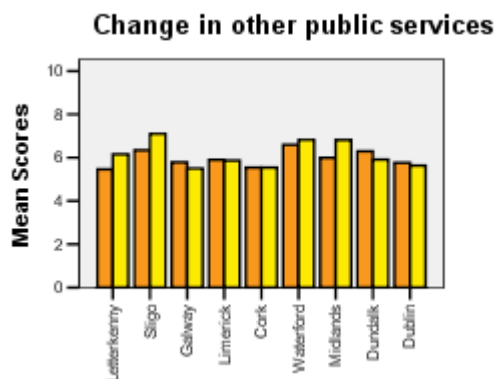
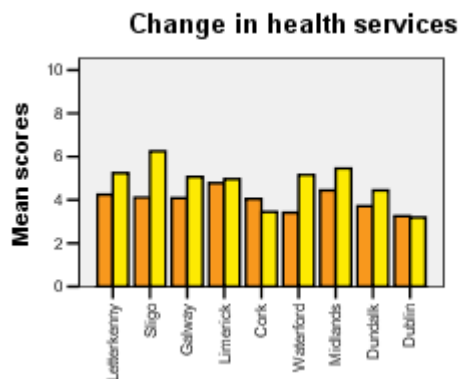
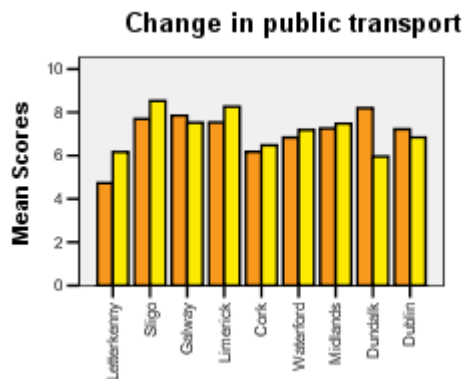
**Quality of other public services**



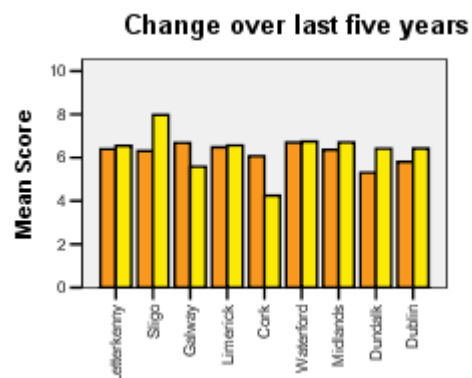
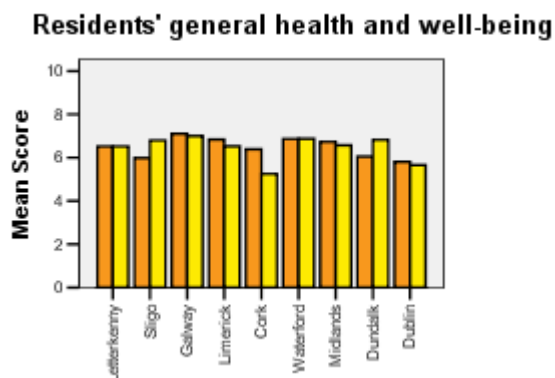
**Quality of recreation**



## Q6: Services - Change

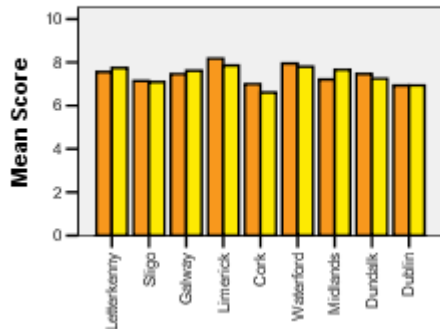


## Q7: Health and Well-being

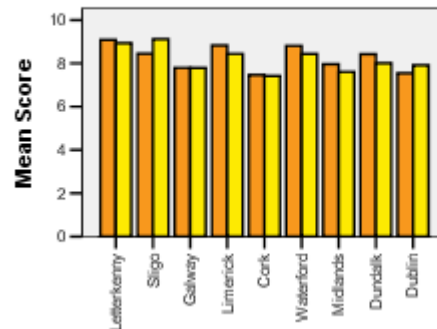


## Q8: Community Facilities – Level and Change

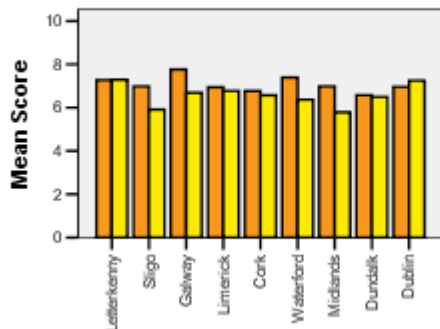
**Quality of sport facilities**



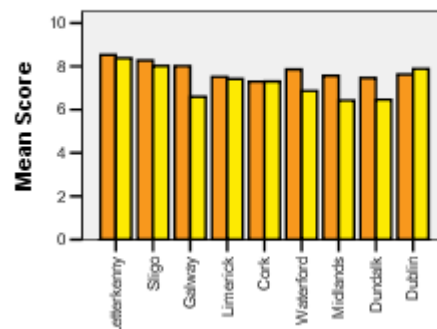
**Change in sport facilities**



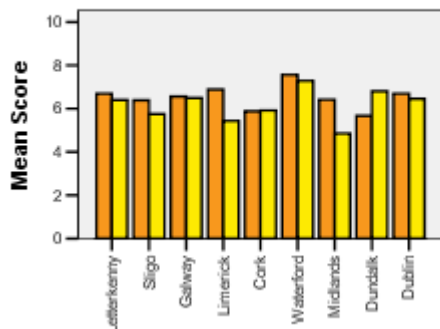
**Quality of entertainment**



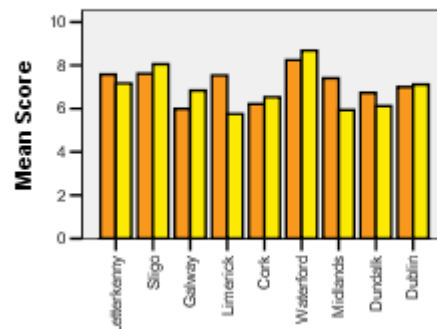
**Change in entertainment**



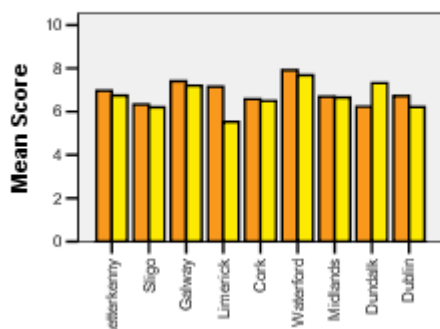
**Quality of parks**



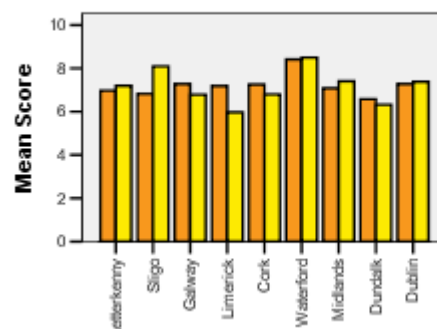
**Change in parks**

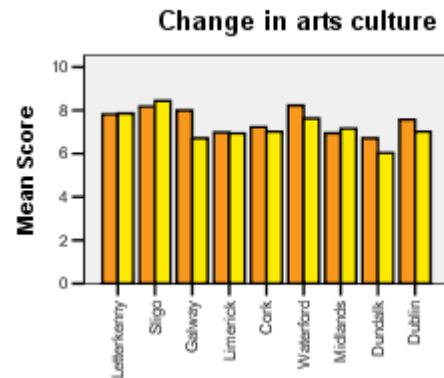
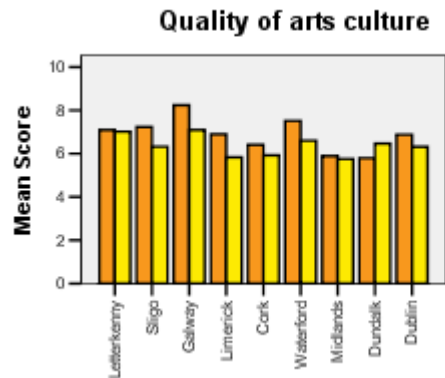


**Quality of libraries**

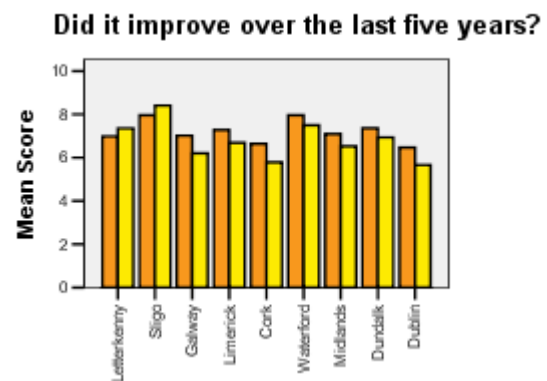
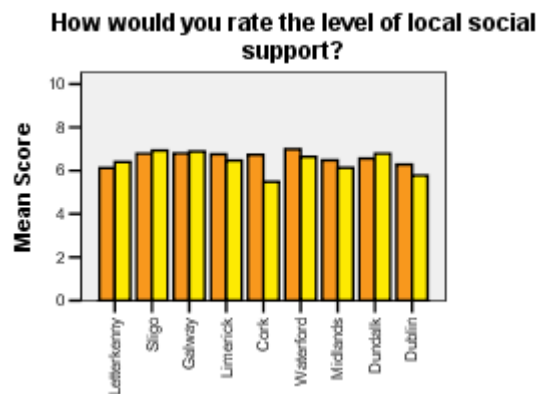


**Change in libraries**

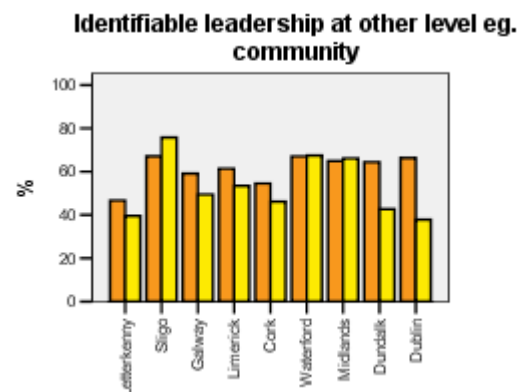
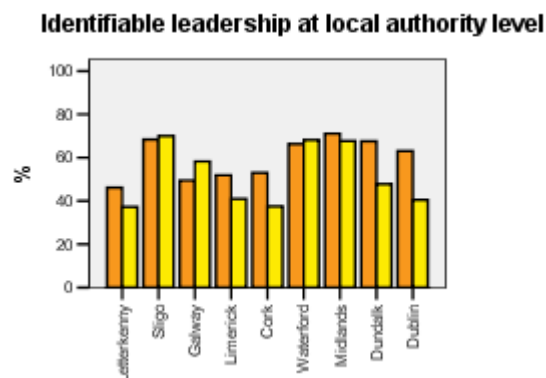




## Q8: Social Support – Level and Change

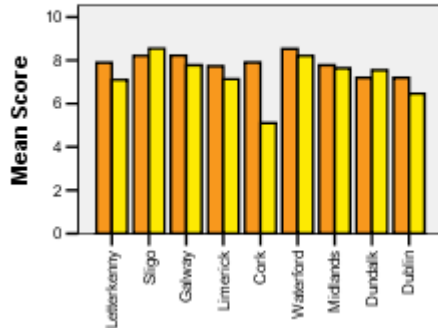


## Q9: Institutional Environment

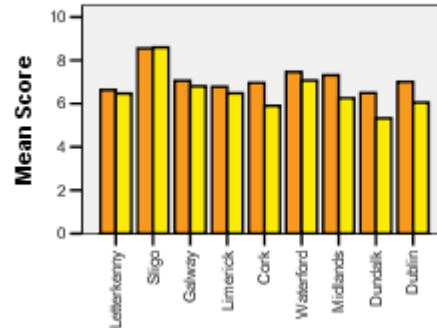


## Q10: Overall Attractiveness and Aggregate Measures

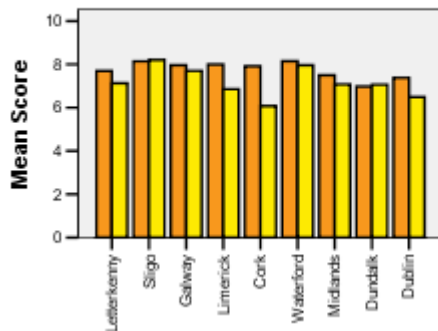
**This Gateway is an attractive place to live**



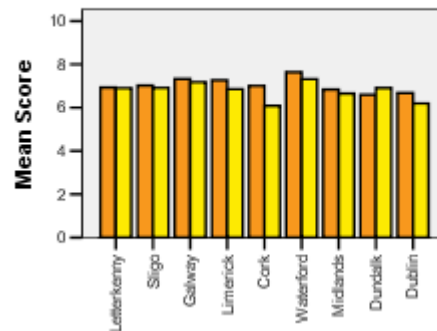
**Awareness of Gateway**



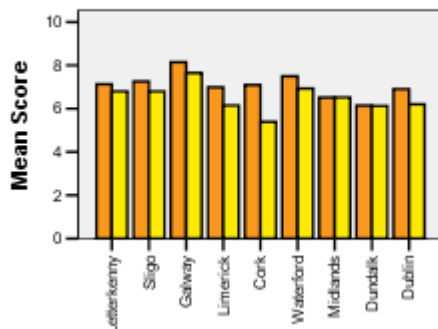
**This Gateway is an attractive place to work**



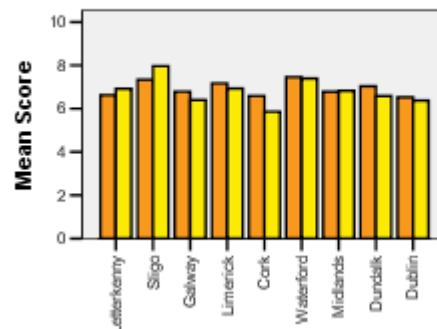
**Level of Gateway**



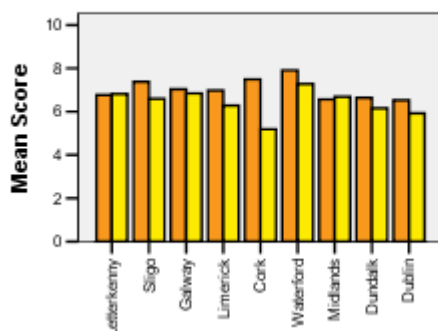
**This Gateway is a dynamic place**



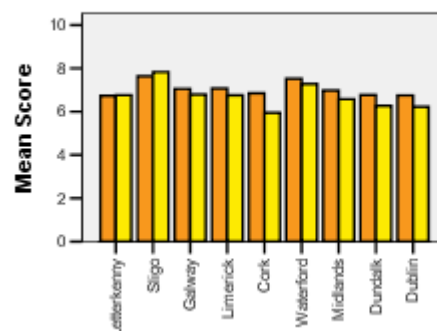
**Change of Gateway**



**This Gateway is a place well equipped for future**



**Overall Perception**



## Sample Points in Gateways and Zones

Gateway Zone - Town	Sample Points	Zone 1 Residents	Zone 2 Residents	Total
Letterkenny Zone 1	5	25	5	150
Letterkenny Zone 2 - Buncrana	1		25	25
Letterkenny Zone 2 - Ramelton	1		25	25
Letterkenny Zone 2 - Raphoe	1		25	25
Letterkenny Zone 2 - Convoy	1		25	25
Sligo Zone 1	5	25	5	150
Sligo Zone 2 - Strandhill	1		25	25
Sligo Zone 2 - Manorhamilton	1		25	25
Sligo Zone 2 - Ballymote	1		25	25
Sligo Zone 2 - Tobercurry	1		25	25
Galway Zone 1	5	25	5	150
Galway Zone 2 - Oughteragh	1		25	25
Galway Zone 2 - Athenry	1		25	25
Galway Zone 2 - Loughrea	1		25	25
Galway Zone 2 - Gort	1		25	25
Limerick/ Zone 1	4	25	5	120
Shannon/ Zone 1	1	25	5	30
Limerick/Shannon Zone 2 - Ballina	1		25	25
Limerick/Shannon Zone 2 - Castleconnell	1		25	25
Limerick/Shannon Zone 2 - Newport	1		25	25
Limerick/Shannon Zone 2 - Croom	1		25	25
Cork Zone 1	5	25	5	150
Cork Zone 2 - Macroom	1		25	25
Cork Zone 2 - Bandon	1		25	25
Cork Zone 2 - Carrigaline	1		25	25
Cork Zone 2 - Midleton	1		25	25
Waterford Zone 1	5	25	5	150
Waterford Zone 2 - Portlaw	1		25	25
Waterford Zone 2 - Tramore	1		25	25
Waterford Zone 2 – Dunmore East	1		25	25
Waterford Zone 2 – New Ross	1		25	25
Athlone Zone 1	2	25	4	58
Tullamore Zone 1	2	25	4	58
Mullingar Zone 1	2	25	4	58
Midlands Zone 2 - Moate	1		25	25
Midlands Zone 2 - Clara	1		25	25
Midlands Zone 2 - Daingean	1		25	25
Dundalk Zone 1	5	25	5	150
Dundalk Zone 2 - Carlingford	1		25	25
Dundalk Zone 2 - Irishtown	1		25	25
Dundalk Zone 2 - Tallanstown	1		25	25
Dundalk Zone 2 - Castlebellingham	1		25	25
Dublin Zone 1 - City Centre Northside	1	25	5	30
Dublin Zone 1 - City Centre Southside	1	25	5	30
Dublin Zone 1 - Blanchardstown	1	25	5	30
Dublin Zone 1 - Tallaght	1	25	5	30
Dublin Zone 1 - Dun Laoghaire	1	25	5	30
Dublin Zone 2 - Swords	1		25	25
Dublin Zone 2 - Leixlip	1		25	25
Dublin Zone 2 - Celbridge	1		25	25
Dublin Zone 2 - Greystones	1		25	25

## Annex 2 Detailed Data Sources by Domain

### Explanatory Note

The accompanying matrix shows the eight GDI domains and the Sub-Domains and individual indicators within these. The columns in the matrix are as follows:

- Column 1 – Domain/indicator: the domain, sub-domain (2-digit) and indicator (3-digit) data.
- Column 2 – Variables Used: this is the actual statistic used to represent the sub-domain/indicators.
- Column 3 – Source: this is the source of the variable used.
- Column 4 – Scale source: this gives the nature of the data in spatial terms. ED = electoral division; XY = geo-coded, county = county-level data.
- Column 5 – Scale indicator: this gives the Zones for which we can calculate the indicator.
- Column 6 – Year: this gives the year of the most recent statistics available.
- Column 7 – Trend Data: this gives the previous years for which data is available, or proxy of this.
- Column 8 – Frequency: this is the frequency with which the indicator will be updated.
- Column 9 – Comment: this gives the status of the indicator within the present report.

### Colour codes in matrix

- Heavy green line = Sub-Domain;
- Light green line = Indicator;
- Pink = indicators which may become available in 2009 and hence are included in the framework but are not yet available at the time of completion of this report.

### Use of Geodirectory Data

The Geodirectory, is the source of a number of the data series used. It is important as an up-to-date source of information between the five-yearly Census of Population. It provides location (XY) coordinates for every private residence in the Republic of Ireland. It can thus easily be aggregated to any spatially defined area, including the Gateway Zones. As of 2008, the Geodirectory distinguishes between primary residences and holiday homes. This is an important prerequisite for a more reliable indicator of the number of permanent private households.

There could still be a potential over-estimate of the number of households in an area, if there was a built-up of newly constructed but yet uninhabited residences. However, in normal circumstances this is unlikely to be sustained over long periods. Also, the comparative approach used here means this may cancel out across broad areas if it is similarly occurring elsewhere. However, it will be important to re-scale the Geodirectory data after each Census so as to re-align the data to the census-based number of households.

<b>DOMAINS AND INDICATORS</b>									
<b>Ind. No.</b>	<b>Domain/Indicator</b>	<b>Variables Used</b>	<b>Source</b>	<b>Scale Source</b>	<b>Scale Indicator</b>	<b>Year</b>	<b>Trend Data</b>	<b>Frequency</b>	<b>Comment</b>
<b>1</b>	<b>Population</b>								
1.1.1	Population Growth (ctrl)	Population Change 2002-2006	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
1.1.2	Population Growth	Population Change 2005-2008	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2007	2005-2008	annually	done
1.1	Relative Population Growth	Population Change	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2007	2005-2008	annually	done
1.2.1	Age Vibrancy	Age Dependency Rate	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
1.2	Relative Age Vibrancy	Age Dependency Rate	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
1.3.1	Population Scale (ctrl)	Population Share	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
1.3.2	Population Scale	Population Share	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2007	2005-2008	annually	done
1.3	Population Scale	Change in Population Share	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2007	2005-2008	annually	done
<b>2</b>	<b>Enterprise &amp; Employment</b>								
2.1.1	New Firm Formation	VAT Registrations	Revenue Commissioners	County	Gateway Proxy	2007	2005-2007	annually	done
2.1	New Firm Formation	VAT Registrations per 1,000 Lab/Force	Revenue Commissioners	County	Gateway Proxy	2007	2006-2007	annually	done
2.2.1	Quality of Sectoral Base (ctrl)	% of Services Employment	Census	ED	Zones 1, 2, 3	2007	1996-2006	5 yearly	done
2.2.2	Quality of Sectoral Base	% of Services in Companies	Kompass (GAMMA)	XY > ED	Zones 1, 2, 3	2007	no	annually	done
2.2.3	Quality of Sectoral Base	% of Services in Companies	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2008	no	annually	done
2.2	Quality of Sectoral Base	% of Services in Companies	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2008	no	annually	done
2.3.1	Unemployment Rate	Live Register	CSO/DSFA	Local Area Office	Gateway Proxy	2007	potentially	annually	done
2.3	Unemployment Rate	Live Register per 100 Lab/Force	CSO/DSFA	Local Area Office	Gateway Proxy	2007	potentially	annually	done

Ind. No.	Domain/Indicator	Variables Used	Source	Scale Source	Scale Indicator	Year	Trend Data	Frequency	Comment
<b>3</b>	<b>Knowledge &amp; Innovation</b>								
3.1.1	Labour Force Quality	% Third-Level Education	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
3.1	Labour Force Quality	% Third-Level Education	Census	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
3.2	Graduate Admission	No. of Third-Level Admissions per Cohort	HEA	Institution	Gateway Proxy	2004	potentially	annually	done
3.3	Graduate Retention	Proportion of Grads finding job in County	HEA	County	Gateway Proxy	2004	no	occasionally	done
3.4	Third-Level R&D	R&D Earnings per Zone 1 Population	HEA	Institution	Gateway Proxy	2007	no	on request	done
<b>4</b>	<b>Natural &amp; Physical Environment</b>								
4.1	River Water Quality	River Water Quality Indicator	EPA	XY > ED	Zones 1, 2, 3	2006	yes	annually	done
4.2	Drinking Water Indicators	Drinking Water Indicator	EPA	XY > ED	Zones 1, 2, 3	2007	yes	annually	done
<b>5</b>	<b>Transport &amp; Connectivity</b>								
5.1.1	Green Transport Usage*	Proportion not using car	Census	ED	Zones 1, 2, 3	2006	1996-2006	5 yearly	done
5.1.2	Travel-to-Work Times*	Average drive times	Census	ED	Zones 1, 2, 3	2006	2002-2006	5 yearly	done
5.1.3	Public Transport Availability*	Accessibility Index Score	Pobal/Haase	ED	Zones 1, 2, 3	2006	no	no	done
5.2.1	Retail Activity	Retail Outlets per 100 Households	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2007	no	annually	done
5.2	Retail Activity	Retail Outlets per 100 Households	Geodirectory (GAMMA)	XY > ED	Zones 1, 2, 3	2008	no	annually	done
5.3	IT Connectivity	PC, Internet access	Census	ED	Zones 1, 2, 3	2006	2002-2006	2002-2006	done
* Used individually, i.e. not aggregated to 5.1									

Ind. No.	Domain/Indicator	Variables Used	Source	Scale Source	Scale Indicator	Year	Trend Data	Frequency	Comment
<b>6</b>	<b>Health &amp; Wellness</b>								
6.1	Mortality	Mortality Rates	HSE, HIU	County	Gateway Proxy	2007	no	no	available in 2009
6.2	Birth Weight	Average Birth Weight	HSE, HIU	County	Gateway Proxy	2007	no	no	liaison ongoing
6.3	Primary Health Care	No. of GPs per capita	HSE, HIU	XY > ED	Zones 1, 2, 3	2007	no	no	done
<b>7</b>	<b>Social Facilities &amp; Networks</b>								
7.1	Social Facilities	No. of Facilities for Local Population	Fáilte Ireland	XY > ED	Zones 1, 2, 3	2008	no	no	liaison ongoing
7.2	Crime	No. of Serious Crimes per capita	CSO/Garda Siochana	Stations	Zones 1, 2, 3	2007	2003-2007	annually	done
7.3	Community Involvement	Community Involvement	Census	ED	Zones 1, 2, 3	2006	no	5 yearly	done
<b>8</b>	<b>Affluence &amp; Deprivation</b>								
8.1.1	Demographic Growth	Measures of Deprivation	Haase & Pratschke	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
8.1.2	Social Class Composition	Measures of Deprivation	Haase & Pratschke	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
8.1.3	Labour Market Strength	Measures of Deprivation	Haase & Pratschke	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done
8.1	Affluence and Deprivation	Measures of Deprivation	Haase & Pratschke	ED	Zones 1, 2, 3	2006	1991-2006	5 yearly	done

**INDICATORS NOT INCLUDED IN GDI**

<b>9</b>	<b>Residents' Perception</b>								
9.1	Awareness	7 Indicators	GDI Survey	Zones 1, 2	Zones 1, 2	2008	no	no	done
9.2	Level	22 Level Indicators	GDI Survey	Zones 1, 2	Zones 1, 2	2008	no	no	done
9.3	Change	22 Indicators of Change	GDI Survey	Zones 1, 2	Zones 1, 2	2008	no	no	done
9.4	Residents' Perceptions	Combination of above	GDI Survey	Zones 1, 2	Zones 1, 2	2008	no	no	done

## Explanatory Note on Time-Series Data

Years of time series indicators on which the past GDI (1991-2006) and new Baseline GDI (2007) are based.

Domain	Indicator	Indicator Name	GDI 1991	GDI 1996	GDI 2002	GDI 2006	GDI 2007
		Scaling Factor	x2	x2	x2	x2	x2
D1 - Population	D1.1	Population Change	1991	1996	2002	2006	2008
	D1.2	Age Vibrancy	1991	1996	2002	2006	2006
D2 – Enterprise & Employment	D2.1	New Firm Formation	2006	2006	2006	2006	2007
	D2.2	Quality of Sectoral Base	1996	1996	2002	2006	2007
	D2.3	Unemployment	2007	2007	2007	2007	2007
D3 – Knowledge & Innovation	D3.1	Labour Force Quality	1991	1996	2002	2006	2006
	D3.2	Graduate Admissions	2004	2004	2004	2004	2004
	D3.3	Graduate Retentions	2004	2004	2004	2004	2004
	D3.4	Third Level R&D Earnings	2007	2007	2007	2007	2007
D4 – Environment	D4.1	River Water Quality	2007	2007	2007	2007	2007
	D4.2	Drinking Water Quality	2007	2007	2007	2007	2007
D5 – Transport & Communication	D5.1.1	Non-Car-Based Commuting	1996	1996	2002	2006	2006
	D5.1.2	Commuting Times	2002	2002	2002	2006	2006
	D5.1.3	Public Transport Accessibility	2006	2006	2006	2006	2006
	D5.2	Retail Activity	2008	2008	2008	2008	2008
	D5.3	Broadband Availability	2006	2006	2006	2006	2006
D6 – Health & Wellness	D6.3	Primary Health Care	2007	2007	2007	2007	2007
D7 – Social Facilities & Networks	D7.2	Crime	2003	2003	2003	2006	2007
	D7.3	Community Involvement	2006	2006	2006	2006	2006
D8 – Affluence & Deprivation	D8.1	Demographic Growth	1991	1996	2002	2006	2006
	D8.2	Social Class Composition	1991	1996	2002	2006	2006
	D8.3	Strength of Labour Market	1991	1996	2002	2006	2006

Key:      2006 Valid Year Indicator      2006 Substitute Indicator      2007 Change in Data Source, which forms baseline for future indicator



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