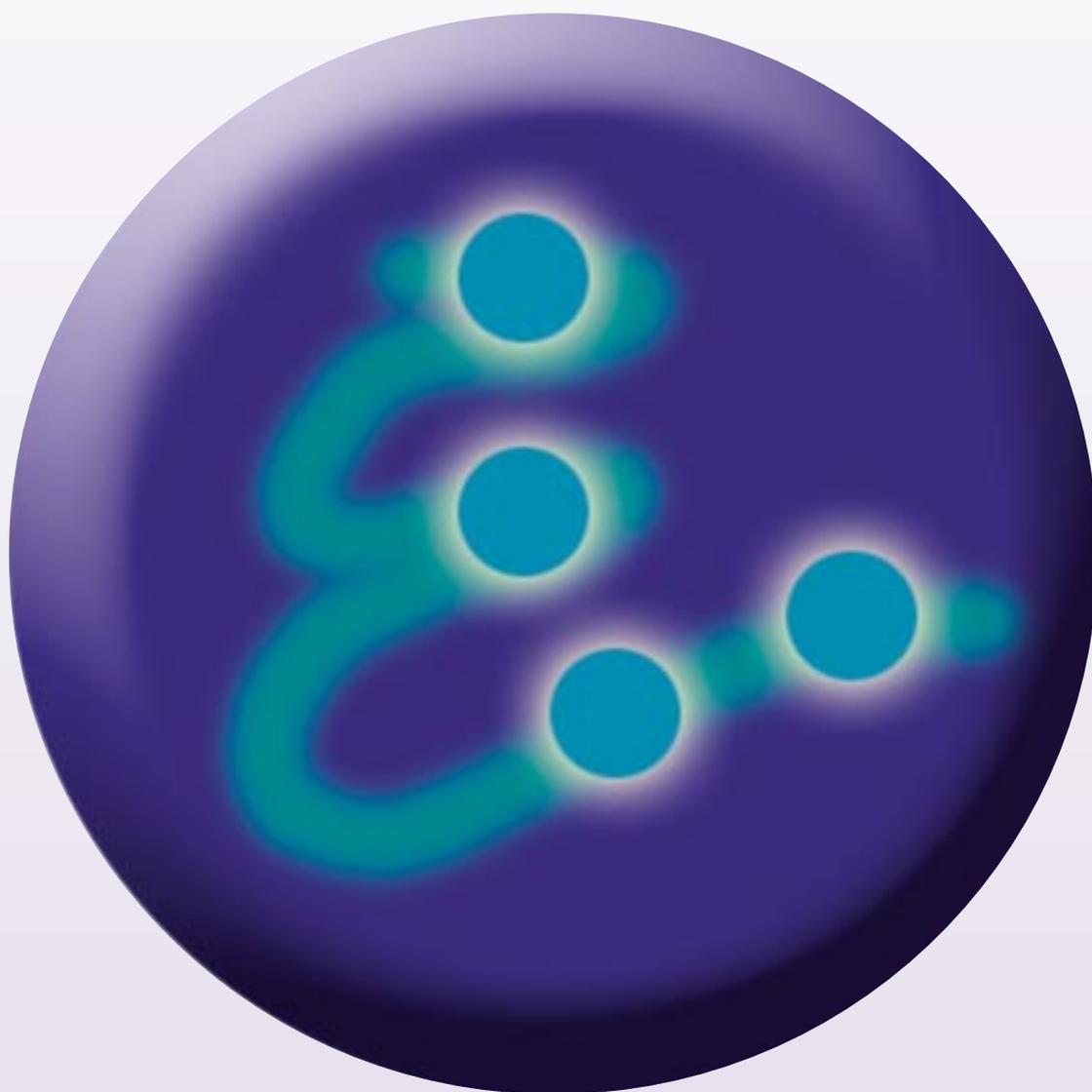


ATLANTIC GATEWAYS INITIATIVE



achieving critical mass

C O N T E N T S



CHAPTER	PAGE
Foreword	2
Overview	3
Section 1: Atlantic Gateways initiative	9
Section 2: Current Realities and Trends	15
2.1 Population	16
2.2 Economic growth	18
2.3 Spatial development trends	18
2.4 Institutional issues	22
2.5 Regional planning guidelines	22
2.6 Infrastructure	23
Section 3: Turning Concept into Reality	31
3.1 Main findings	32
3.2 Policy priorities	33
3.3 Timetable for action	35
3.4 Atlantic Gateways: what each city region should do differently	39
3.5 What Government should do differently	41
3.6 Private sector investment	41
3.7 Moving forward	41
3.8 Conclusion	44
Appendices	45
A. National Spatial Strategy	46
B. Polycentricity	47
C. Spatial trends in Ireland and the Atlantic Gateways	53
D. Economic issues	59
E. Institutional issues	65
F. Regional Planning Guidelines	70
G. Infrastructure	72
H. Study report participants	75

Foreword by the Minister for the Environment, Heritage and Local Government



I welcome the publication of this Atlantic Gateways report. The project was directed by my Department and Shannon Development, in collaboration with the Regional Authorities of the West, Mid-West, South-West and South-East Regions, and the Southern & Eastern Regional Assembly. Private sector participants were also involved. This feasibility study explores the mechanisms necessary for turning the Atlantic Gateways concept into reality. The concept is an important step in the implementation of the National Spatial Strategy. It is further evidence of the value of the Strategy as a framework for a wide variety of public and private organisations to help achieve more balanced regional development.

In the context of continuing strong growth in the Greater Dublin Area, as evidenced by the recent preliminary population data for the 2006 Census, the challenge for us is to find a way in which the other main cities in the country can work together to present a competitive range of attributes and attractions to complement what has been achieved along the eastern coast of Ireland and, in particular, in the Greater Dublin Area.

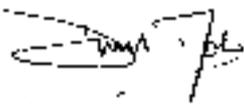
While I acknowledge the excellent work already undertaken in each of the gateway cities of Cork, Galway, Limerick and Waterford to create strategic plans for their future development under the NSS, this project demonstrates that collaborative efforts to combine the powers of attraction of these gateways can produce a coherent and viable solution to create the critical mass necessary for future economic development in the Atlantic cities and their hinterlands. The study explores how the vision of the four gateways can become an increasingly interconnected and developed network of co-operating and complementary cities, which can in turn enhance the development potential of all four gateways and invigorate development in a wider sub-regional context.

As the report states, co-operation and competition are fundamental features of all aspects of economic, social, political and development life. The central issue from the Atlantic Gateways' perspective is how best these different processes should be managed to achieve maximum gains within the overall area.

To help achieve these critical masses, it is essential that the targeted development of the gateways is supported by national, regional and local measures. The Government's commitment to align and prioritise regional investment under the next National Development Plan for the period 2007-2013 with the National Spatial Strategy is a very positive step, and should place the NSS at the heart of capital infrastructure decisions over the next seven years.

The long term success of the Atlantic Gateways concept depends ultimately on all partners in the region – both in the public and private sectors – driving forward cohesively to deliver on the promise of the NSS. Delivery of the National Development Plan will be a good starting point, as it aims to transform the internal connectivity of Ireland in physical and information technology terms. The NSS has delegated interpretation of the national spatial framework to regional and local authorities. Reasonable and coherent frameworks have been put in place and must be matched now by delivery – delivery of critical mass in the gateways, promotion of the hubs and county towns as well as the sustainable development of rural areas.

I would like to thank all those who have contributed to the development of the Atlantic Gateways process and I would encourage them to continue their efforts to realise the potential in the four cities and to turn the concept into a reality. I look forward to working with the various partners in this process.



Dick Roche TD
Minister for the Environment, Heritage and Local Government

September 2006





ATLANTIC GATEWAYS

WHAT IS THE CONCEPT?

*The challenge:
to rival the
most
competitive
city region
corridors and
accelerate
regional
growth.*

The challenge: to rival the most competitive city region corridors and accelerate regional growth.

Today, the Republic of Ireland sustains one of the most dynamic economies in Western Europe and the world. A key economic engine within Ireland's recent success is the critical mass, competitiveness and quality of life in and around its capital – Dublin. A key policy question that has developed in recent years is what role other parts of Ireland can and should play in both complementing and counterbalancing the dynamism of the eastern part of Ireland so that Government's objective for more balanced regional development can be met.

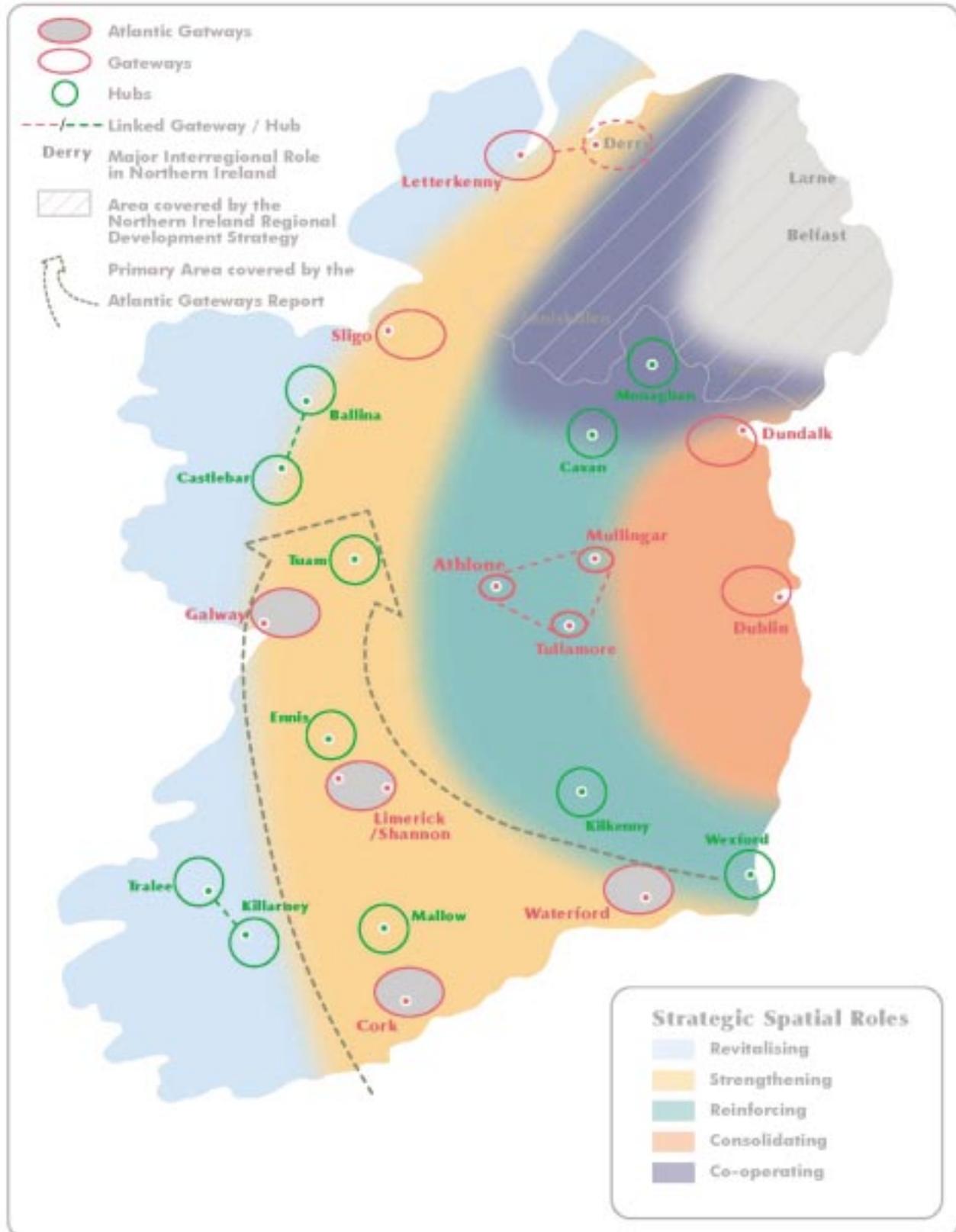
The National Spatial Strategy (NSS) published in 2002 provides the strategic planning framework for the future development of Ireland to address the question outlined above. (see Appendix A) The NSS establishes a framework within which strategically placed large urban centers, essentially the cities of today and in the future, are to be strengthened in order to drive their wider regional economies. Larger towns or hubs as well as other key county towns, villages and rural areas have particular roles identified for them in the NSS.

The NSS particularly notes that the rapid growth of the main cities and surrounding regions of Cork, Galway, Limerick and Waterford points to their possible role in driving the development of their hinterlands and their combined potential to provide a strong counterbalance to Dublin capable of acting at the national and international levels, both individually and collectively.

The NSS emphasises that a process of strengthening the critical mass of the existing gateways of Cork, Limerick, Galway and Waterford both individually and collectively, to complement Dublin's successful national spatial role, offers the most immediate prospects of establishing more balanced patterns of development over the next few years. (Figure 1)



FIGURE 1 - The National Spatial Strategy & the Atlantic Gateways



This feasibility study explores how the message of the NSS can be implemented in reality and confirms that the four reasonably proximate regional cities of Cork, Galway, Limerick and Waterford, situated on the western and southern coasts of Ireland, present the most immediate prospects for Ireland to develop the type of critical mass present in the Dublin region, to complement it and lead the drive towards more balanced regional development across the western and southern parts of the island of Ireland, complementing the dynamic east coast corridor between Dublin and Belfast.

The purpose of this feasibility study is to explore the concept of linkages between the "Atlantic" gateways above. The project was directed by the Department of Environment, Heritage and Local Government, (DEHLG) and Shannon Development, in collaboration with the Regional Authorities of the West, Mid West, South West and South East Regions, and the Southern & Eastern Regional Assembly. Private sector participants were also involved. Technical support was provided by FGS Consulting. The study has been prepared alongside a separate DEHLG and Forfas report on the development possibilities together with implementation and infrastructure priorities within the nine gateways identified in the NSS.

The feasibility study has three main aims:

- Elaborate the basic Atlantic Gateways initiative;
- Locate the Atlantic Gateways initiative in the context of Ireland post-2006;
- Explore the mechanisms of turning the concept into reality.

This study is thus one step in the development of a process through which the Atlantic Gateways might be implemented as a key objective in securing the National Spatial Strategy with suggestions for further steps.

An Atlantic Gateways Steering Group has prepared the feasibility study based on:

- (1) An analysis of the Atlantic Gateways strengths, assets and current plans for public and private investment;
- (2) Identification of the potential for a more collaborative approach to the development of the gateways building on, and adding value to, the very substantial efforts already being made in the cities and the regions through the implementation of Regional Planning Guidelines and strategic development frameworks for the cities; ¹
- (3) Extensive consultation with key stakeholders nationally and within the gateways and their wider regions;
- (4) A need to be ambitious but realistic in relation to how the development potential of the Atlantic Gateways will be activated so as to realise the Government's objective of creating more balanced regional development.

The feasibility study has both general conclusions and practical recommendations:

General Conclusions

- All current indications are that Ireland will continue to be a fast developing country into the future. On a business as usual basis, current projections indicate that most development is likely to gravitate around the eastern seaboard part of the island, concentrated on the Dublin/Belfast corridor. In the face of this challenge, the Atlantic Gateways concept is about taking decisive steps and actions to forge an alternative scenario where the island of Ireland will have, in the period to 2020 and beyond, not one but two rapidly growing major metropolitan corridors along both the east and west/south coasts offering to society and to investors a wider range of areas on the island where economic opportunity, services and environmental quality are to the highest standards.
- In the world of the future, competitive and successful places will be the ones that establish strategic alliances among the key local stakeholders in their development as well as strategic alliances with neighboring places. Within the context of the Atlantic Gateways concept, this means positioning the local economic offer of the individual cities within the strengths of the wider Atlantic Gateway region.

1. Such as the Land Use, Transportation Strategies for each city.

- Given that the Atlantic Gateways regional economy is only slightly smaller than that of the Greater Dublin Area then, if the Gateways economy can continue to grow faster than that of the Greater Dublin Area, there is a real potential to create more balanced regional development in Ireland;²
- There is generally a good degree of fit between the Atlantic Gateway concept and current statutory plans and investment strategies such as the new strategic frameworks within the gateways and plans for new road, public transport and communications networks between the gateways;
- To position the Atlantic Gateways as a new economic corridor, there needs to be a shift in mindset across key actors at local, regional and national levels towards developing and articulating a new consensus about development possibilities and priorities across and throughout the corridor;
- The Atlantic Gateway corridor has the potential, in the longer term, to expand and include wider areas. While there needs to be a focus on accelerating the growth of the four city regions that make up the Atlantic Gateways, this needs to be linked to the potential and vital roles of intervening rural and urban areas between the gateways in completing the economic chains that sustain strong, competitive and innovative regional economies. A vital element of achieving the Atlantic Gateways concept will be targeted investment in inter-gateways connectivity under the next NDP/NSRF³.
- The Atlantic Gateway concept has also the further potential, in the longer term, to take in a much wider spatial context, that of an "Atlantic Arc" that would encapsulate the present Atlantic Gateways corridor to include points northwards to Mayo, Sligo and Derry/Letterkenny.
- Some additional investments that build on the NDP but go beyond it, particularly in the aspect of inter-gateway connectivities, are becoming apparent and it will be vital for the Atlantic Gateway concept that such investment issues influence the macro investment agenda beyond the current NDP;
- Implementation of the Atlantic Gateways concept will be best achieved through a phased approach, building on sequentially putting in place key component strategies and infrastructure investment, and within an overall process of consultation, interaction and co-operation.
- While there needs to be a focus on accelerating the growth of the four city regions that make up the Atlantic Gateways, this needs to be linked to the potential and vital roles of intervening rural and urban areas between the gateways in completing the economic chains that sustain strong, competitive and innovative regional economies.

Practical Recommendations

- The Atlantic Gateways initiative is a big project, which involves many sectors and interests. It will require both immediate and sustained commitment and resources in order to bring the opportunities and potentials to fruition that so clearly exist in the area.
- A visible identity should be established and used in the identification and marketing of the Atlantic Gateways involving for example a logo, agreed marketing strategy, web page with a wide range of links and promotional events and literature;
- Connections between enterprises in the Atlantic Gateways area should be promoted, for example through regional trade fairs encouraging a process whereby goods and services move along the production supply-chain between business located in the Atlantic Gateways Area as much as between these businesses and businesses outside the Area;

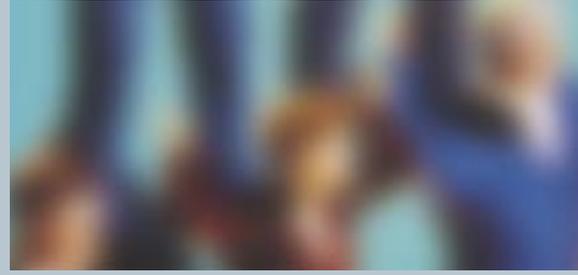
2. For example, an extra 1% per annum increase in the combined economic output of the Atlantic Gateways could potentially mean an increase in national economic output of some €6billion per annum after 10 years. (see appendix D)

3. National Development Plan and National Strategic Reference Framework for EU funds

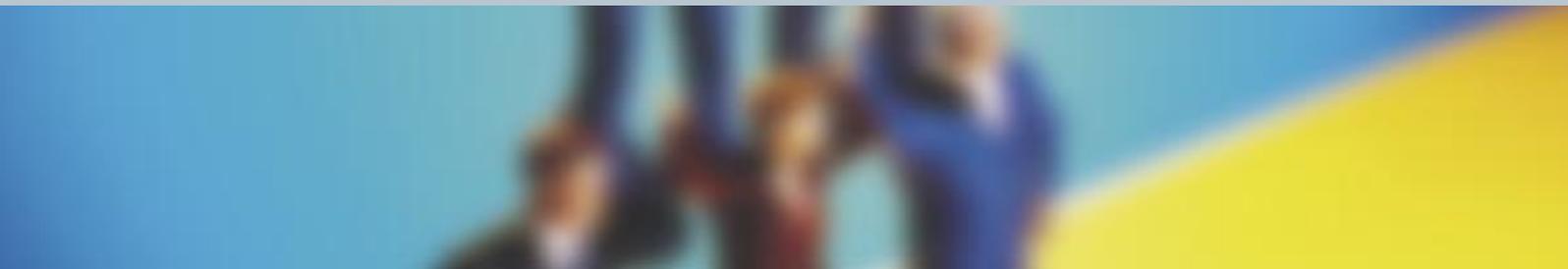
- The Atlantic Gateways concept needs to be driven by a task force drawn from relevant existing agencies, authorities and government departments supported by dedicated resources, support and international expertise and charged with further development and promotion of the concept at local, regional, national and international levels; implementation of the concept needs to be closely integrated with implementation of the Regional Planning Guidelines;
- There needs to be a future research programme delivered through the various third level universities and institutes amongst the Atlantic Gateways that would be focused at exploring issues related to any part of the Atlantic Gateways Area. Joint funding proposals would help to secure additional resources for the area bodies and potential EU funding through the Territorial Co-Operation Programmes present strong possibilities.
- Implementation of the Atlantic Gateways concept must take place on a step by step rather than big bang process, focusing initially on building awareness and acceptance of the concept followed by further development and extension of the concept.
- Implementation of the Atlantic Gateways concept should be strongly linked to the ongoing process of implementing the National Spatial Strategy, including the associated reporting arrangements.



s e c t i o n o n e



**THE
ATLANTIC GATEWAYS INITIATIVE**



- The development potential of the four Atlantic Gateways is potentially enhanced through a collaborative approach to development;
- The Atlantic Gateway concept is a long term initiative whose initial phases should be about developing and creating awareness of its potential, while laying out transport infrastructure and other critical enabling elements followed by practical co-operation around marketing and branding;
- Present travel times between the gateways present significant practical and mental blocks to envisioning the Atlantic Gateways development potential. These travel times will improve.

The Atlantic Gateways initiative aims to establish greater levels of connectivity and synergies between Cork, Galway, Limerick and Waterford across areas such as economic development, physical infrastructure as well as social and cultural development. The basic premise of the concept is that by co-operation in relevant areas, the development potential of all of the four gateways will be enhanced. This enhanced development potential would help to create a higher level of critical mass and a more self-sustaining growth impetus complementing the Greater Dublin Area and the Dublin/Belfast Corridor. In so doing the Atlantic Gateways will promote more balanced regional development.

Key concepts in the initiative are:

- Connectivity
- Co-operation and competition
- Development potential
- Critical mass
- Polycentricity
- Medium to long term
- New economic space
- Spatial dimension
- Practical implications

Connectivity: The links that underpin connectivity are many, including physical, economic, financial, administrative, social or political factors. In practice the links would embrace transport routes, information linkages, formal and informal business alliances, informal or formal governance arrangements, connections between people and sporting links. The links may occur across a variety of dimensions. They may be transient or relatively permanent, involve more or fewer people or businesses, be nested within frameworks of other links, be formalised or informal. The initiative would seek to establish a pattern of connectivity that is:

- rich in terms of the number of links;
- multi-faceted with different types of linkages;
- strong with some key stable linkages.

Co-operation and competition: Cooperation and competition are fundamental features of virtually all aspects of economic, social, political and development life. The central issue from the Atlantic Gateways perspective is how best these different processes should be managed to achieve maximum gains within the overall area.

Development potential: The Atlantic Gateways initiative is based on a multi-faceted view of development, beyond mere physical development in the form of roads or buildings. However, it is intended at this stage to focus on physical infrastructure, governance and economic development issues. If progress can be made on these three fronts, then a platform will be created to build actions into other dimensions of development.

Critical mass: In an economic development context, "critical mass" is based on the idea that through a set of actions designed to lift the performance of an area, the combination of such actions gets to a point where the process of development not only starts to sustain itself but to accelerate. The Atlantic Gateways initiative works on the understanding that the closer the connectivity across the four cities, as well through the hinterlands between the Gateways, the greater the propensity for internally-generated growth. Through this, the Atlantic



Gateways will become key drivers of future growth. The essence of critical mass is thus high density and variety of linkages between the gateways, fostering internally-generated growth.

Polycentricity: Polycentricity is the term used to describe a situation where two or more cities have activities which complement each other and where there is some level of co-operation between the cities to function like a larger urban entity (i.e. 'punch above their individual weights'). This is precisely one of the core ideas at the heart of the Atlantic Gateways initiative. Polycentricity has received increasing academic and policy attention at a European level in recent years, with emerging findings and recommendations. The principles underlying polycentric development have a resonance here: the experience gained in Europe and elsewhere will be invaluable in advancing the Atlantic Gateways initiative in the future. Recently published European research and policy development documents have recommended several approaches:

- Cities should be encouraged to co-operate and join forces. This would involve improving co-operation across administrative boundaries, including a greater level of political commitment to support polycentric approaches and initiatives;
- Physical infrastructure between cities is a priority area for improvement, especially physical connectivity;
- The 'mental distance' between cities can be a significant obstacle and needs to be overcome, particularly by expanding the number of linkages across a wider range of sectors;
- Strategic planning is a key requirement.

Polycentricity is discussed in more detail in Appendix B.

Medium to longer term: The Atlantic Gateways initiative should be commenced in the immediate future and pursued in a sustained manner into the longer term. For now, the emphasis needs to be on awareness and capacity building to help the gateways see strategic benefits in areas of collaboration that are appropriate and to develop an awareness and buy-in to the concept at national level as well in relation to public investment and policy. Over time more significant impacts at a national scale and international level should become apparent. The Atlantic Gateways initiative is therefore a big and long-term project.



New economic space: The Atlantic Gateways initiative suggests the creation of a new "economic corridor" initially and necessarily focused around the gateways and the areas between the gateways but over time expanding outwards to adjacent areas, where interaction between the Gateways stimulates an area of new economic linkages and trade. Several national benefits can accrue from this approach.

Expanded markets

The logic here is based on the familiar themes of the benefits of trade. Geography and tradition combined mean that much commercial activity in the Gateways is conducted internally within the separate Gateways. Thus, when businesses or households are sourcing goods or services, there is a tendency to look within Gateways, potentially limiting their scope. However, as with any group of towns, regions or countries, trade between previously separate entities leads to benefits. By developing this view to embrace the Gateways, expanded markets will arise with the associated benefits such as increased choice and competition.

Complementary facilities

All areas require a range of facilities if they are to compete as business locations. In many instances, cities can provide complementary facilities of benefit throughout the Atlantic Gateways. For example, improved transport connections in the future between the Atlantic Gateways, as envisaged by Transport 21, could encourage market-driven and private-sector influences towards a shared market area, emulating the critical mass of the Dublin/Belfast corridor;

Combined strengths

In trying to attract investment, a city will set out its strengths based on the services and facilities it has to offer. By acting in combination with another city, the range of services and facilities offered can be expanded, thereby increasing the attractiveness of both cities.

Sharing best practice

As with all layers of government, benefits can be derived by learning from others how common issues and problems have been successfully approached. The Atlantic Gateways initiative could facilitate this between the Gateways on a more structured basis.

Spatial dimension: Four spatial concepts underpin the Atlantic Gateways initiative, forming the basis for the Atlantic Gateways 'development area'.

Major urban nodes

The four cities are the major urban nodes, including their built-up urban areas and immediately surrounding districts.

Catchments

Each city has an area of direct daily influence that extends considerably beyond the node boundary. These catchments, without sharp boundaries, are broadly the areas containing 90% of the daily commuting, about 45 minutes travel time.

Development corridors

A development corridor is the area along, and adjacent to, a transport route linking two urban nodes. The relatively good accessibility afforded by the transport route, together with the passing traffic, generate economic potentials along the corridor, i.e. Galway-Limerick, Limerick-Cork, Limerick-Waterford and Cork-Waterford corridors.

Regions

The regions in the Atlantic Gateways context are the four city-centred regions, namely, the West (Galway), the Mid West (Limerick), the South West (Cork) and the South East (Waterford). The key point about the regional scale is that the regions include areas beyond the catchments and the corridors.

It needs to be emphasised that the Atlantic Gateways concept needs to be viewed as a dynamic and moving concept over time with the potential, having started with the gateways themselves and intervening areas, to grow outwards to areas such as the west and northwest, to Kerry, to the midlands and southeast as other areas are lifted and actively participate in the development of the metropolitan corridors of the Atlantic Gateways.

Practical implications: If the Atlantic Gateways initiative was to be adopted and pursued vigorously, some examples of what might take place are set out below. It should be noted that these are merely examples and do not constitute in any way a definitive set of projects or actions. Hopefully, in a vibrant Atlantic Gateways initiative, a full list of all the cooperative ventures would be considerably longer and more widely embedded across the whole of the economic and social fabric of the Gateway areas.

- A visible identity should be established and used in the identification and marketing of the Atlantic Gateways involving for example a logo, agreed marketing strategy, web page with a wide range of links and promotional events and literature;
- Connections between enterprises in the Atlantic Gateways area should be promoted for example through regional trade fairs encouraging a process whereby goods and services move along the production supply-chain between business located in the Atlantic Gateways Area as much as between these businesses and businesses outside the Area;
- The Atlantic Gateways concept needs to be driven by a task force drawn from relevant existing agencies, authorities and government departments supported by dedicated resources and international expertise and charged with further development and promotion of the concept at local, regional, national and international levels, closely integrated with the Regional Planning Guidelines;
- There needs to be a future research programme delivered through the various third level universities and institutes amongst the Atlantic Gateways that would be focused at exploring issues related to any part of the Atlantic Gateways Area. Joint funding proposals would help to secure additional resources for the Area bodies; potential EU funding through the Territorial Co-Operation Programmes present strong possibilities.
- Implementation of the Atlantic Gateways concept must take place on a step by step rather than big bang process, focusing initially on building awareness and acceptance of the concept followed by further development and extension of the concept.
- Implementation of the Atlantic Gateways concept should be strongly linked to the ongoing process of implementing the National Spatial Strategy, including the associated reporting arrangements.

s e c t i o n t w o



CURRENT REALITIES AND TRENDS



- The Atlantic Gateways together present the main opportunity in the regions through which to complement the economic strength and critical mass of Dublin.
- Recent population trends indicate that the Atlantic Gateways will have to grow faster than Dublin to maintain a balanced national distribution of population.
- There are indications that population and development corridors are building up between parts of the Atlantic Gateways.
- The income and output per capita gap between Dublin and the Atlantic Gateways regions has remained over the past several years.
- There are extensive plans in place for infrastructure within and between the gateways, particularly in the areas of transport, energy and communications

The aim of this section is to identify trends and current situations in key areas that impact on the Atlantic Gateways initiative.

2.1 POPULATION

The tables below provide an indication of some of relevant population data.

Table 2.1: Population, 2002

Place	City and suburbs*	45 Minute travel catchment**
Cork	186 239	337 917
Limerick	86 998	326 279
Galway	66 163	175 836
Waterford	44 594	267 359
Total 4 Cities	383 994	1 107 391 ⁴
Dublin	1 004 614	1 423 512

Sources: CSO ⁵* ** ESPON (European Spatial Planning Observatory Network)

The data above is drawn from the Central Statistics Office and the European ESPON report. Equivalent data from the 2006 census was not available at the time of publication. These provide the necessary independent and comparative statistics by which the different sizes can be shown on the same basis. Separate data, such as the regional planning guidelines and land use studies, provide important complementary material but may not be strictly comparative. For example, the Cork Metropolitan Area (city/suburbs and adjacent towns - a different definition to those used in the table above) has over 252,000 population.

Several conclusions may be drawn from the above data.

Looking at Table 2.1, the large size of Dublin compared to the other existing gateways is immediately evident. The population of Cork, the second largest city in the Republic, as defined by the CSO (both city council and contiguous urban areas) is 19% of the corresponding population for Dublin, highlighting a wide gap in the population ranking of Ireland's two largest cities. The other three gateways of Limerick, Galway and Waterford are also

4. Note: Combined Atlantic Gateway population does not exist within a single 45 minute travel radius rather four separate 45 min travel catchments that will overlap to various degrees over time.

5. Populations for each of the gateways above are for city and environs as defined by CSO.

considerably smaller than Dublin, but also in a lower size-band to Cork. Cork, in fact, is equal in population to the other three gateways combined. These discrepancies in size have fundamental implications for gateway policies in Ireland. With such differences in size, the competitive strengths are not equal and it is therefore extremely unlikely that individual gateways, apart from Cork, will be able to produce a substantial momentum, complementary to Dublin, on their own.

A further key point is the fact that the total population in the combined catchments of the four Atlantic Gateway cities is relatively close to that of Dublin. However it needs to be emphasized that, whereas there is a population of some 1.4 million people within a 45 minute travel radius from the centre of Dublin, the travel radius catchments of the four Atlantic Gateways are separate though overlapping. The catchments of the Atlantic Gateways are thus distributed over a considerable distance and do not have a concentration of population like mono-centred city regions such as Dublin which is an important factor in securing effective critical mass. Hence the importance of promoting linkage and networks between the Atlantic Gateways is immediately evident.

POPULATION GROWTH

Table 2.2 below shows the Atlantic Gateways and Dublin in terms of population growth.

City and suburbs	1996	2002	Change	% Change
Cork	179 954	186 239	+6285	+3.5
Limerick	79 137	83 147	+4010	+5.1
Galway	57 363	66 163	+8800	+15.3
Waterford	42 540	44 594	+2054	+4.8
Total 4 Cities	358 994	380 143	+21149	+5.9
Dublin	962 692	1 004 614	+41922	+4.4
State	3 626 087	3 917 203	+291116	+8.0

Source: CSO

Table 2.2 highlights that most of the Atlantic Gateways (Cork, Limerick and Waterford) grew in relative terms as fast as Dublin over the last census period, indicating that they have the capability of producing growth rates at least matching that of the capital. The exception was Galway, with rates of increase three times that of any of the other centres. The challenge for the Atlantic Gateways is clear. It is not enough for the Gateways to grow only as fast as Dublin. The implication is that the Atlantic Gateways, to provide a serious alternative to Dublin, must grow at rates substantially in excess of the national capital. Only by doing this will the Gateways secure the more balanced development vision envisaged by the NSS.

Latest data from the Preliminary Results of the 2006 Census of Population confirm the continued dominance of the Greater Dublin Area (GDA). Viewed historically, the GDA has played a very prominent role in the national population.

Area	Population (,000)					
	1961	1971	1981	1991	2002	2006
GDA	906	1,062	1,320	1,351	1,535	1,661
Ireland	2,818	2,978	3,443	3,526	3,917	4,235
GDA as % of Ireland	32.2	35.7	38.3	38.3	39.2	39.2

Source: CSO Census of Population

During the 1960s and 1970s, the GDA grew much faster than the rest of the country, levelling off with similar growth rates in the 1980s, followed by some increases in share in the 1990s, and stabilising in 2002/06. The GDA thus persists in maintaining its dominant position. Furthermore, the GDA has strengthened its role by spilling over into adjoining counties. This trend confirms the urgency of ensuring complementary growth elsewhere.

2.2 ECONOMIC GROWTH

Details of the economic strengths and weaknesses of the Atlantic Gateways compared to the Greater Dublin Area are set out in appendix D. Key features of the Atlantic Gateways include:

Strengths: The Atlantic Gateways employ the same number of people as the Greater Dublin area, with some strong growth rates of Gross Value Added (GVA), as exemplified by the South West

There are four distinct major urban nodes in the Atlantic Gateways into which economic activity is focused, providing a variety of bases from which growth can be stimulated.

Weaknesses: The Atlantic Gateways area economy covers a large geographical area compared with the Greater Dublin Area, with less economic integration. There is no single focal point in the Atlantic Gateway area. With similar economic structures in the four Atlantic Gateway regions, there are weaker opportunities for complementary economic development.

Opportunities: The relatively large size and growth momentum of the Atlantic Gateways confirm potential for critical mass.

Threats: Relative dependence on the manufacturing sector in the Atlantic Gateways, in contrast to the services concentration in the Greater Dublin Area, makes the area more susceptible to wage-cost competition from abroad. Variations in growth of GVA within the Atlantic Area may cause unbalanced growth into the future.

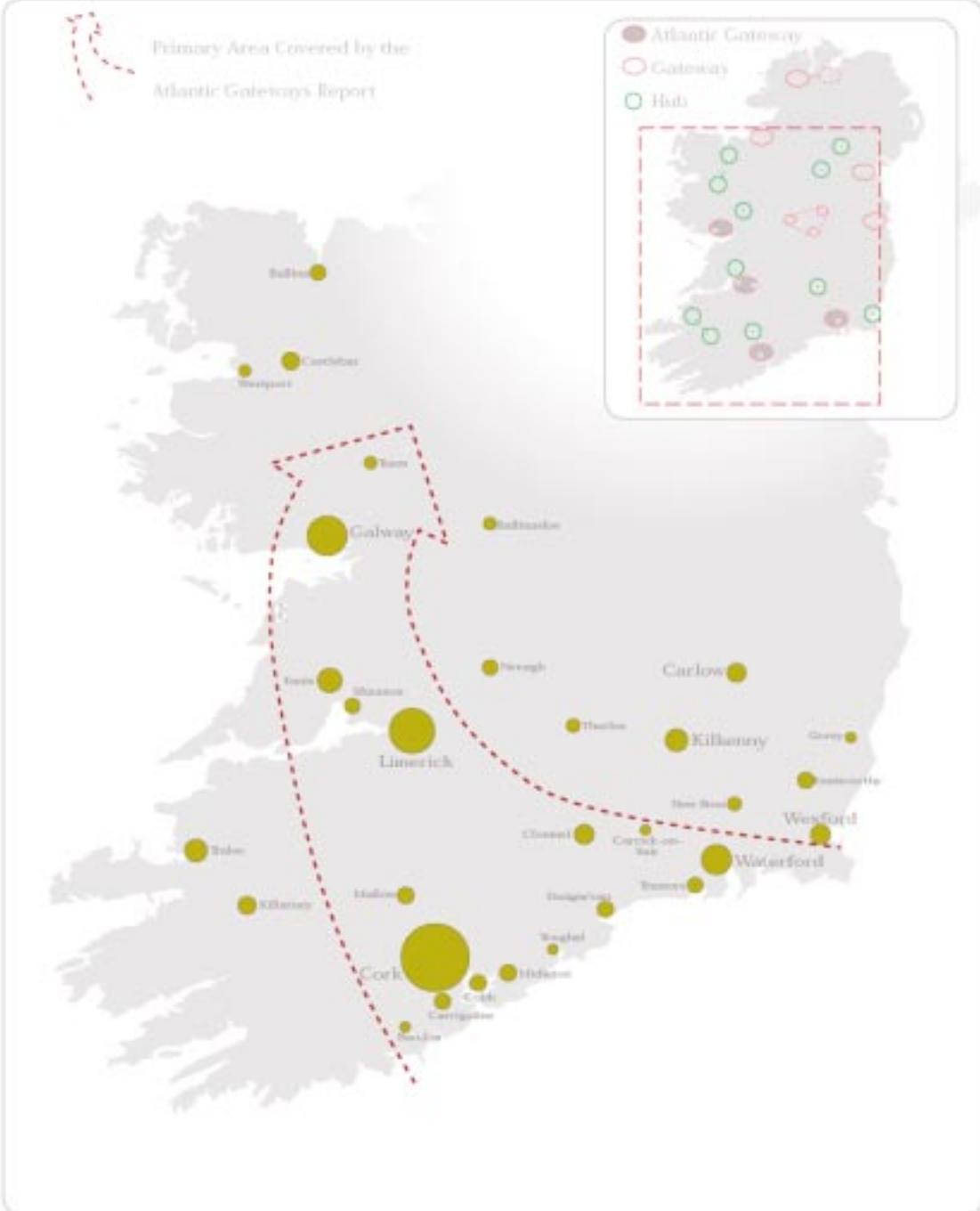
2.3 SPATIAL DEVELOPMENT TRENDS

Turning to the cities and towns across the Atlantic Gateways and their intervening areas, Figure 2 illustrates the urban hierarchy in the area..

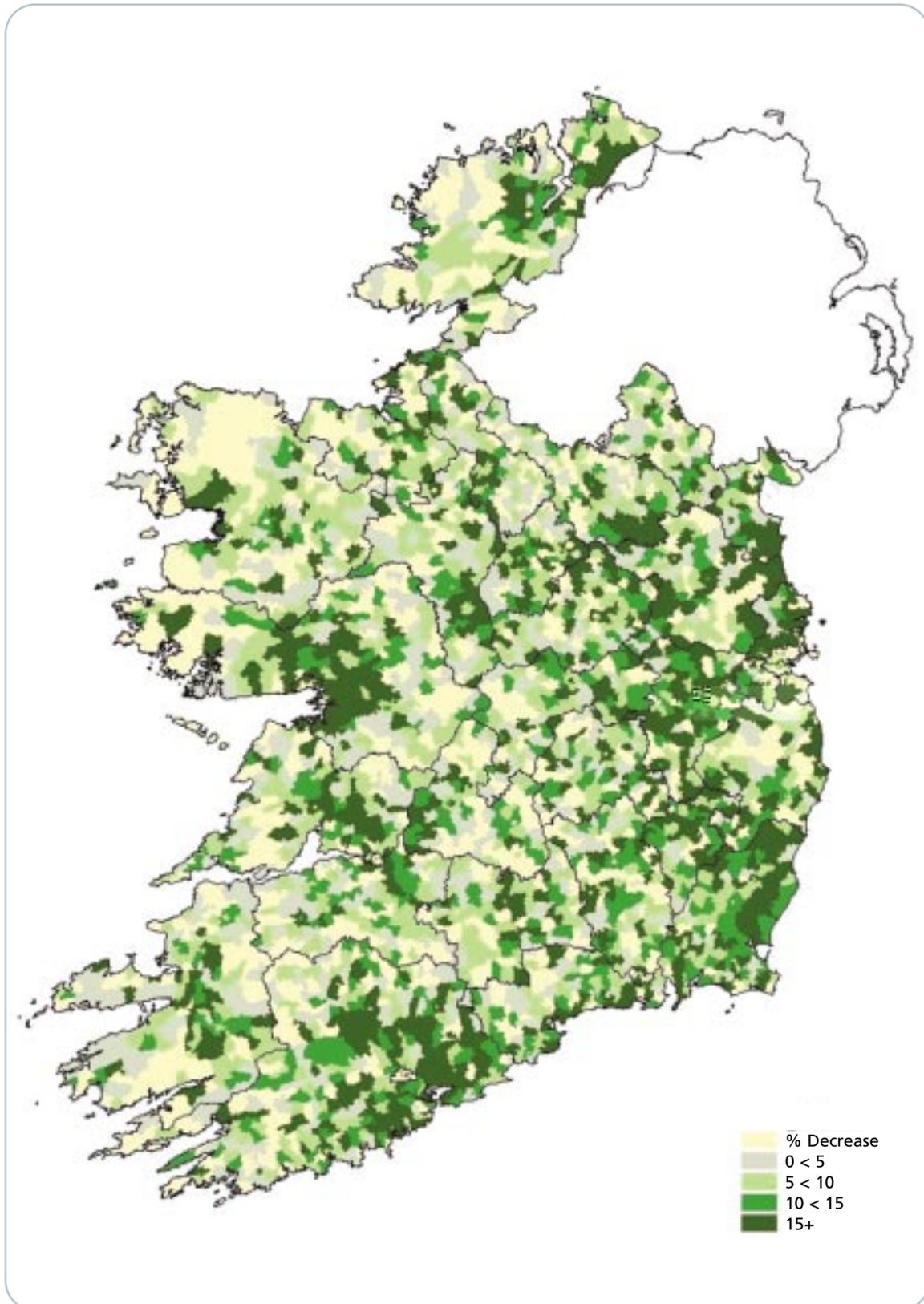
The characteristics of the Atlantic Gateways need to be viewed within a national spatial context. A map illustrating population change patterns across Ireland between 2002 and 2006 is outlined following. Looking at this map, and other data sources, a number of key points are evident, detailed further in Appendix C. Dublin has an extensive spatial spread ('urban footprint') and it is very substantially larger than any of the other urban-centred areas in the country.

Cork, as the second city, is the obvious next most spatially distinct centre outside of Dublin, with a significant footprint into the surrounding areas. A strong corridor, supported by new rail links, is developing from Cork towards Waterford. Limerick/Ennis/Shannon also stands out as a distinct contiguous urban area, while Galway is clearly the major centre in the west with a relatively extensive footprint into the surrounding county area notably to the west and east. A significant population corridor is apparent between Limerick and Galway. The pattern of population distribution in the South East is different from that found in the other Atlantic Gateway areas, with a predominance of strong and large towns with no single centre as prominent in the region as in other regions.

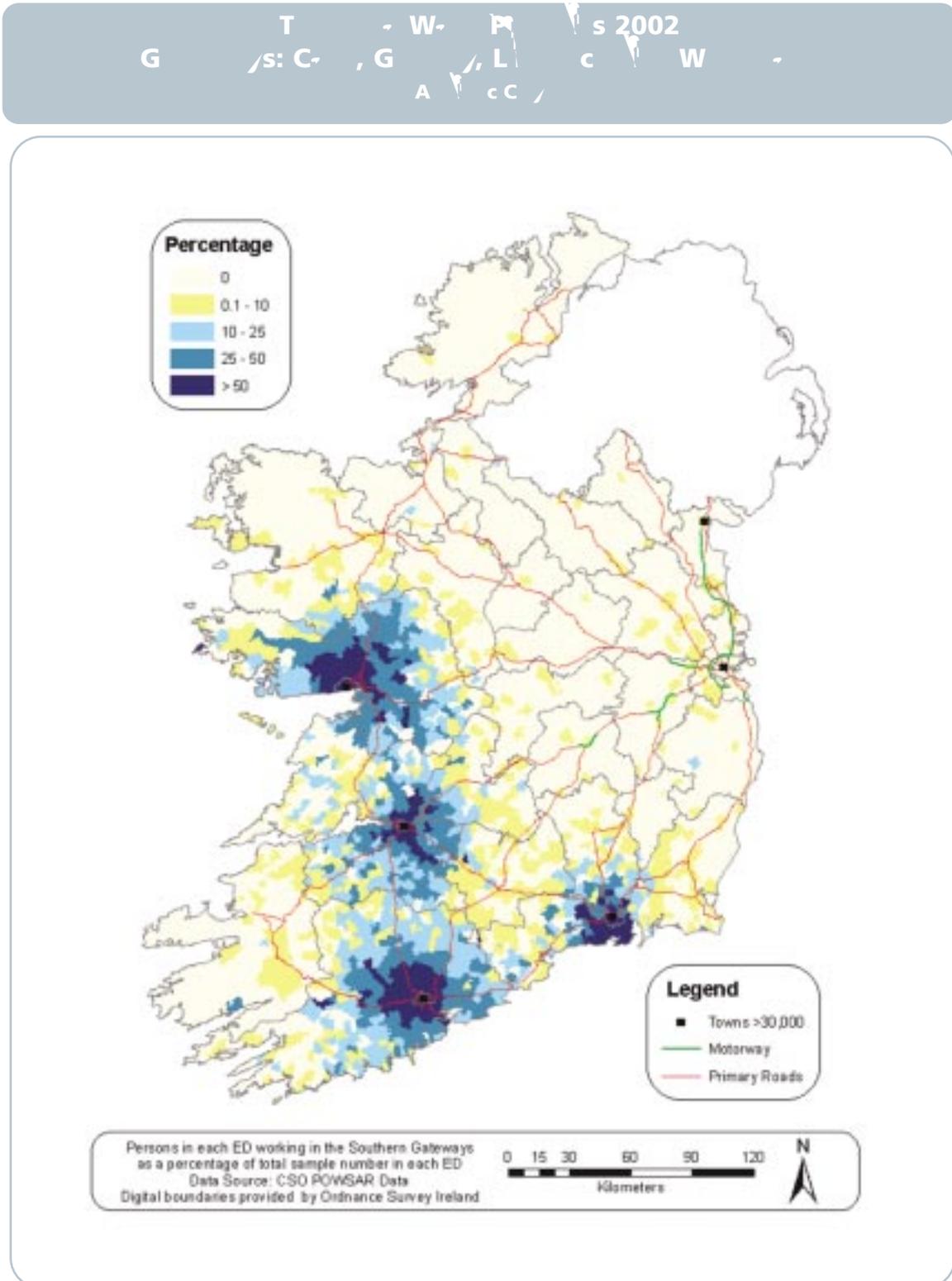
FIGURE 2 - Atlantic Gateways and Adjoining Areas: Relative population 2002 of cities and towns over 5000 population



Percentage Change in Population of Electoral Divisions 2002 - 2006



The map following on travel-to-work illustrates journey to work patterns for the Atlantic Gateways based on the 2002 census returns. Key trends show that there are very distinct travel catchments extending out from Cork, Limerick and Galway, and that these are beginning to form a linear continuum. However, in the South East region, travel-to-work patterns are less extensive.



Source: NIRSA, NUI Maynooth (2005)

2.4 INSTITUTIONAL ISSUES

A number of recent measures confirm that structures and initiatives can develop at the scale of the Atlantic Gateways. Appendix E gives more detail

Atlantic University Alliance (AUA)

The alliance was founded in 1997, aimed at pooling the expertise and resources of the three universities in the Atlantic Gateways (NUI Galway, University of Limerick and University College Cork) and making them available for the benefit of indigenous SMEs in the area. The Alliance is a voluntary association and has operated successfully since its inception. A Forfas study concluded that the initiative has resulted in technology transfer from the individual universities to small companies. For example the Technology Transfer Initiative that takes place within the AUA framework has supported over 80 projects in three years and involved over 400 firms in the various stages of the programme. The AUA has also helped to inform the approach to joint research collaboration and to focus applications for future funding.

Atlantic Technology Corridor (ATC).

The ATC is an informal industry-led alliance that aims to create a vibrant technology cluster to drive the economy along the Limerick/Galway corridor. It was formed in 2003 and comprises important technology companies, the Universities of Limerick and Galway and is supported by Shannon Development. Research by the ATC has indicated that there are 270 ICT and medical technology companies employing 22 000 people in the corridor area. ATC has identified infrastructure deficits (particularly air, road, rail and telecoms) and has identified development objectives, including the promotion of Limerick/Galway as a single entity.

Western Region Marketing Alliance

This alliance is an informal group comprising regional tourism interests on the western seaboard. The main aim of the Alliance is to market the whole of the Irish western seaboard to attract both domestic and overseas visitors. The Alliance is particularly active producing brochures, developing a web site, undertaking an advertising campaign in the UK, promoting electronic marketing initiatives and adopting a co-operative approach to overseas trade and consumer shows. The Alliance members raised €500 000 funds from within their own budgets and received an equivalent amount from Tourism Ireland.

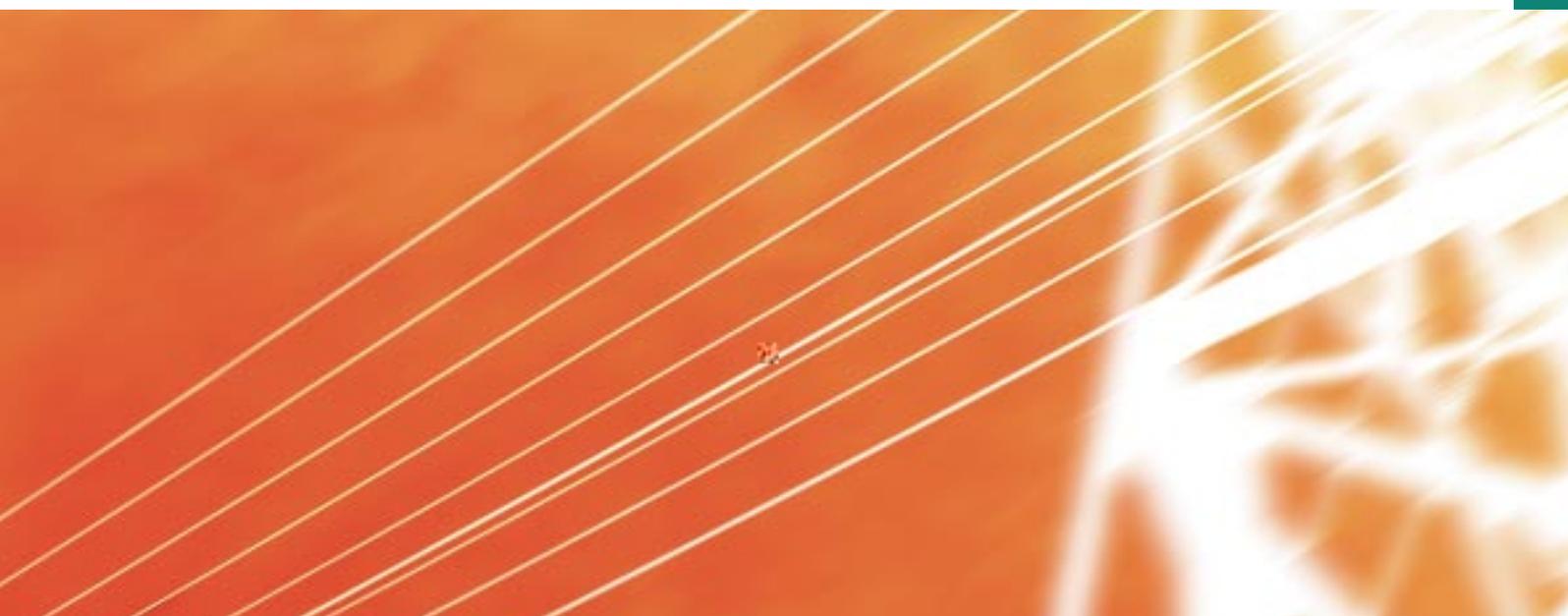
The three case studies of the Atlantic University Alliance, Atlantic Technology Corridor and the Western Alliance suggest several conclusions that might inform future policy for the Atlantic Gateways:

- All were voluntary and informal entities, arising from local and regional effort, reflecting strong commitment from the partners;
- The partners are still in competition, very actively in many cases, but have agreed to cooperate in special areas of mutual interest;
- External bodies, especially national-level authorities, have facilitated and resourced the collaborations;
- Public/private partnerships are of central importance, with the private sector taking a very significant lead role in many cases;

These four ingredients: voluntarism, collaboration with competition, national support and public/private partnership would seem to provide the strategic building blocks for similar ventures for the Atlantic Gateways.

2.5 REGIONAL PLANNING GUIDELINES

The NSS called for the preparation of Regional Planning Guidelines made by Regional Authorities under the Planning and Development Act 2000 and to act as a regional level policy context within which statutory development planning policies would be set at local levels. The Regional Planning Guidelines, published by the regional authorities in 2004, provide the statutory planning and policy framework for future developments in the Atlantic Gateways. A significant feature of each of the four sets of RPG's for the Atlantic Gateways (Mid West, South West, West and South East) is that they each identify the potential of the Atlantic Gateways concept and



advance various ways that such potential might be activated, notably around co-ordinating land use planning policies across the areas between the Atlantic Gateways so as to promote planning across regional boundaries and optimise development opportunities. Appendix F gives further detail.

2.6 INFRASTRUCTURE

Considerable progress is being made in relation to infrastructure development across the Atlantic Gateways and their intervening areas. Further details are set out in Appendix G.

Roads (See Figure 3)

Government policy for improvement of national roads, as outlined in Transport 21, provides for the development of five major inter-urban routes: Dublin/Border, Dublin/Galway, Dublin/Cork, Dublin/Limerick and Dublin/Waterford. The aim is to upgrade these to motorway or high quality dual carriageway standard. Improvement programmes for many other national primary routes are also a priority. Most significantly, there are also active projects under way to strengthen connectivity between the Atlantic Gateways, specifically the Atlantic Corridor (Letterkenny to Waterford), thus helping to develop combined critical mass of the four centres.

A good example of how this connectivity between the Atlantic Gateways is already being achieved in practice is through the expressway inter-urban coach service of Bus Eireann, a service already strengthened by road improvements.

Rail (See Figure 4)

The Strategic Rail Review (2002) recommended that the focus of the railways into the future should be as a predominantly passenger railway with several features: an effective mass urban transit operation in Dublin; regular quality commuter services between Dublin and adjacent towns; and a good mix of quality intercity radial and 'fit for purpose' non-radial routes.

Significantly, the Review included an upgrade to the Cork suburban scheme linked to an aggressive land use development strategy (CASP) in the recommended rail investment strategy. Separate studies have also been undertaken of other potential projects, such as the western rail corridor and the Limerick/Shannon link. Transport 21 has confirmed the re-opening of the Western Rail Corridor on a phased basis, the upgrading of the suburban rail service in Cork and the feasibility study of the Shannon rail link.

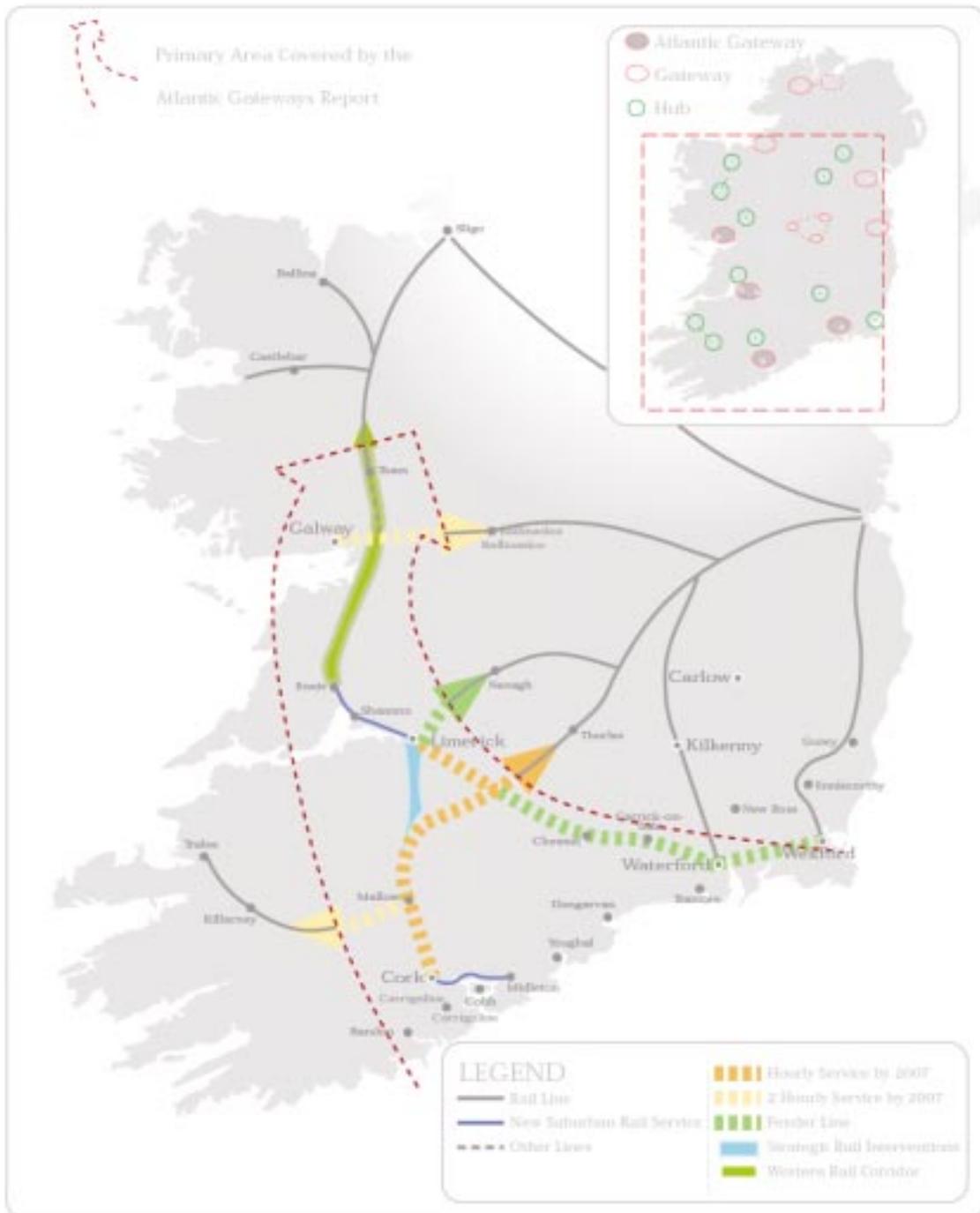
Energy Grids (See Figure 5)

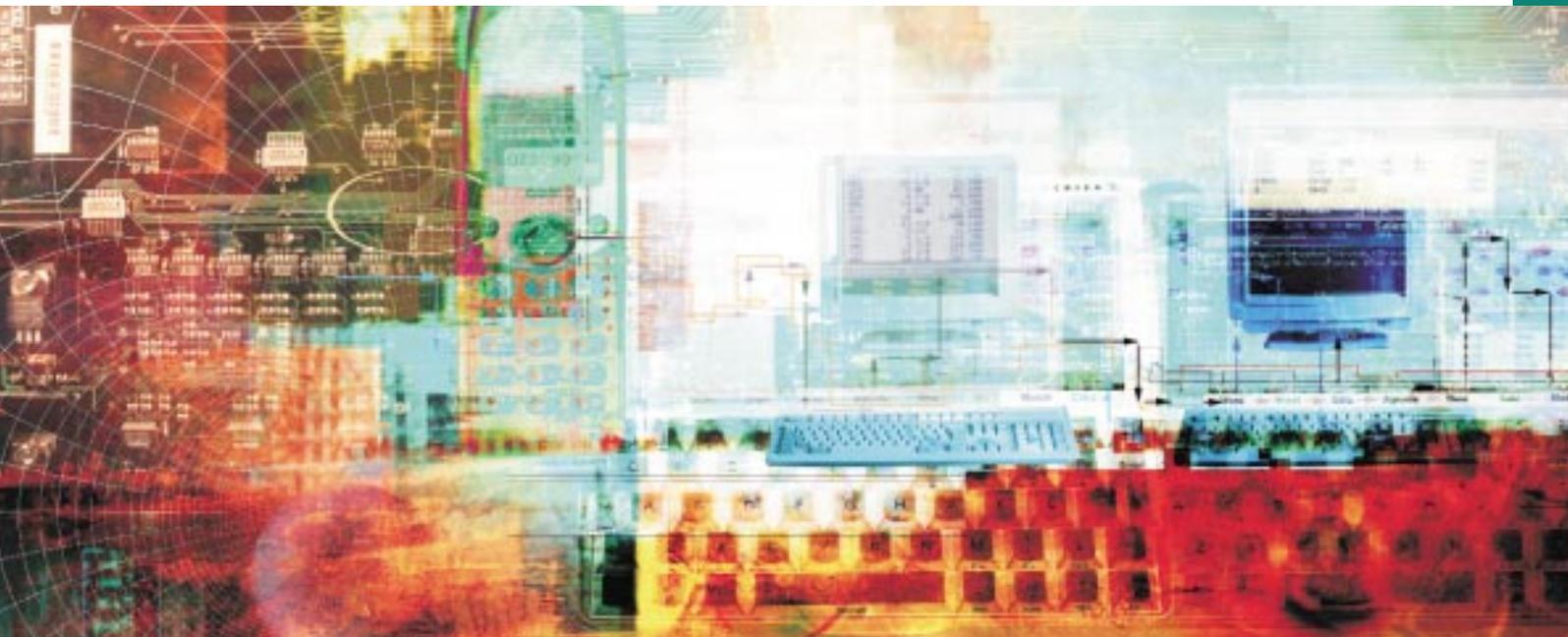
An extensive network of energy grids serves and interconnects the Atlantic Gateways.

FIGURE 3- Infrastructure Plans: Current, Committed & Indicative Roads to 2014



FIGURE 4 - Atlantic Gateways: Existing, Planned & Potential Rail Network





Broadband

The Government's National Broadband Strategy aims to develop the broadband infrastructure and services to support the transition of the Irish economy from one based in the past on the production and distribution of physical goods to one based on the production and application of knowledge. All of the Atlantic Gateways and many intervening towns and rural areas have broadband access. The Government-led and local authority-driven Metropolitan Area Networks initiative involves the construction of high-speed fibre-optic rings linking the key business districts in main towns and cities across the country within a partnership with local and regional government organisations, including the Atlantic Gateways. The County and Group Broadband Schemes promote the roll-out of broadband to smaller town and rural communities.

Ports and Airports (See Figure 6)

Looking across the networks of ports and airports in and or near the Atlantic Gateways, what is striking is the range of domestic and international destinations, representing a key asset with which to position their international potential and connectedness. While Dublin offers an even greater range and frequency of services, as congestion in Dublin becomes more of an issue and as land-side access to facilities amongst the Atlantic Gateways from their regions and other parts of the country are enhanced (e.g. such as the new terminal and ancillary facilities at Cork airport and a possible rail link to Shannon Airport), there is the potential to develop credible national level and complementary facilities to those on offer in Dublin. Regional airports have strong and vigorous local management and will play a key role in developing services.

Social Infrastructure

The area of social infrastructure is a necessarily broad one, encompassing education, health and community care, amenity and sporting facilities as well as entertainment, artistic and cultural facilities. It is an increasingly accepted fact amongst analysts of regional development issues and trends that the array of social infrastructure that a region can deploy is becoming a major factor in their distinctiveness, attractiveness and competitiveness. Over time, as standards of physical infrastructure level out, it may be that the social infrastructure offer of a region may become the defining element of regional competitiveness. A key goal and driver of growth in the Gateways should be the accelerated investment in recreational sporting and cultural facilities, to increase their relative attractiveness as places in which to live and work.

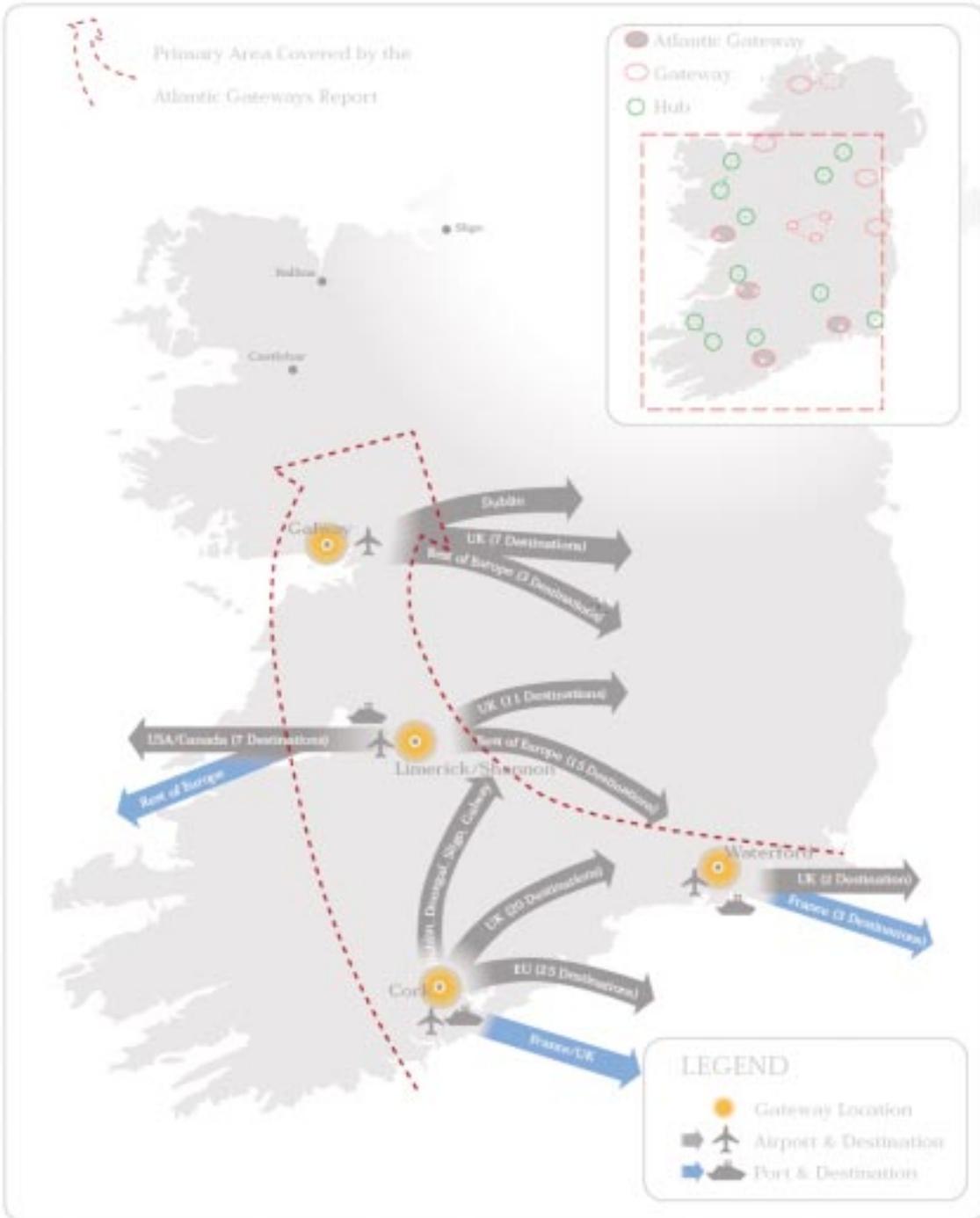
Across the Atlantic Gateways and their intervening areas, a very wide range of social infrastructure is available that was too extensive to examine in detail in this report. However, joint action, promotion and collaboration within aspects of social infrastructural provision may well be a potential area for implementation of the recommendations of this report.

Research and Innovation

In the future, the more competitive regions will be the most innovative regions. A strong presence in gateways of the third and fourth level sectors will have a critical role in developing and extending high level skills, value added functions and capacity for innovation in those gateways and their wider regions through higher education for school leavers, continuing education for adults and support for research and development by companies. The Atlantic Gateways have a vibrant third level educational and research capability. Cork, Limerick and Galway contain universities and Institutes of Technology as well as other 3rd level institutions are present in all of the AG's. With existing universities in the other Atlantic Gateways, in order for Waterford and the South-East to develop critical mass and participate meaningfully in the Atlantic Gateways project, it is recognised that consideration of and action on the merits of establishing a university in the region (currently the subject of a formal application) will be an essential element. Additionally, in the Atlantic Gateway context, the individual innovation capabilities of the AG cities can be bolstered through collaboration and networking as exemplified by the case study of the Atlantic University Alliance.



FIGURE 6 - Infrastructure Plans, Port/Airport Links



section three



TURNING CONCEPT INTO REALITY



- The Atlantic Gateways have the capacity to accelerate additional growth by working in networks rather than by working in isolation.
 - A transformation in thinking and new approach to planning needs to be adopted.
 - The Atlantic Gateways initiative can add significant value to existing programmes.
 - Key policy priorities must be to strengthen the gateways and boost employment, linking the gateways between themselves and with the world, with a regional dimension and macro-level thinking, leading to sustainable communities in the corridors and surrounding areas.
 - A timetable for action in multi-annual stages - immediate, up to 2013 and 2014-2020 – needs to be adopted
 - Key challenges will be to secure critical mass of the Atlantic gateways, strengthen connectivity and mobilise resources.
- This chapter summarises the main research and workshop findings;
 - Outlines the policy priorities for the Atlantic Gateways;
 - Identifies the main implementation actions;
 - Sets out a timetable for action.

3.1 MAIN FINDINGS

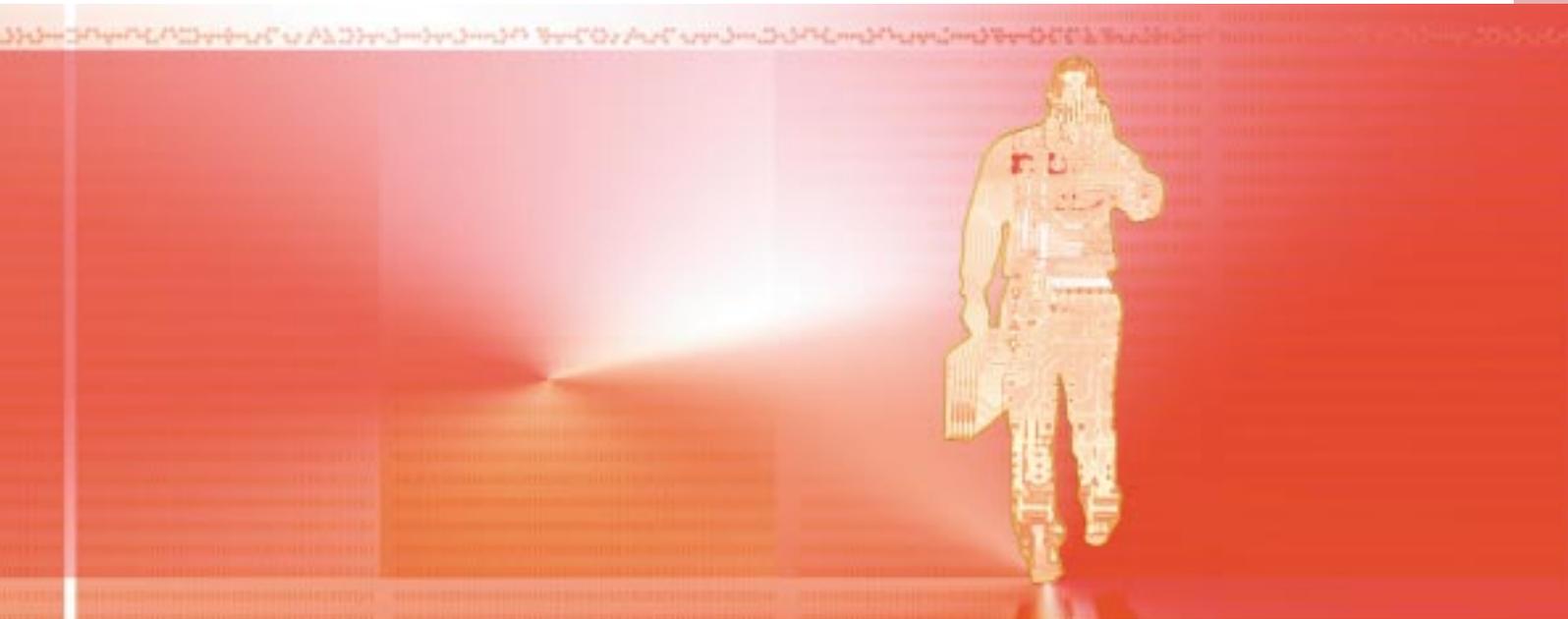
To support the development of the Atlantic Gateway concept research and consultation was carried out.

In terms of analyses carried out, the main findings were that:

- The future capability of the Atlantic Gateways to accelerate growth on the western and southern seaboard to complement Dublin is critical to the balanced territorial development of the island of Ireland.
- Ireland's economy could substantially benefit from a high growth rate in the Atlantic Gateways, yielding national benefits in terms of expanded markets and shared strengths between the gateways.
- Internationally, the idea of "polycentricity" has won wide acceptance, with new policies being developed in Europe where cities, towns and wider rural areas can achieve far more by working in networks than by working in isolation.
- Looking at population and development trends in and between the Atlantic Gateways, it is increasingly apparent that development corridors are opening up in Cork/Waterford, Cork/Limerick and Limerick/Galway.
- Current actions under the NDP, the NSS, Transport 21 and by the individual gateway authorities represent major progress, with the completion of the Regional Planning Guidelines, infrastructure plans, developments within gateways and some new collaborative initiatives already under way.

A central part of the Atlantic Gateways initiative was a series of three consultation workshops, attended by over 50 people on average at each, exploring and examining the many complex issues facing the Atlantic Gateways. Participants are listed in Appendix H. The main findings from the workshops include the following.

- (1) For the Atlantic Gateway concept to work, **a transformation needs to take place in how the individual Atlantic Gateway cities and their regions are viewed**, by themselves as well as by the private sector and government departments and agencies. This transformation is about seeing the gateways in terms of their cumulative potential as well as in terms of their individual identities. Promoting such combined potential would involve (i) the individual gateways thinking about themselves as part of a distinctive and dynamic economic zone in a national and international context, (ii) the gateways working to develop an identity and



branding (iii) the gateways, with the support of Government, implementing the concept through projects and activities with short, medium and longer term perspectives.

- (2) All participants were agreed that, as the Atlantic Gateway concept is fundamentally about better linkages between the gateways, **a new approach to planning for and delivering world class infrastructure links between the gateways is critical**. Access is central, connecting the gateways to each other will be vital in enabling the market to function effectively, attracting foreign direct investment, sustaining a burgeoning domestic enterprise sector and enabling people and enterprises establish their own links and networks. Connecting the gateways to Dublin must be however the immediate priority because of the national role played by Dublin as the capital and in terms of its role as an international air and sea gateway to and from Ireland to other parts of the world. Therefore delivering on existing commitments under the NDP, for example, the five main interurban road links between each of the Atlantic Gateways and Dublin, is an essential starting point. Through better linkages between the gateways and intervening towns and rural areas there must also be a strong social dimension to the Atlantic Gateways: cross-fertilisation between third-level educational institutions, access to services and amenities in both urban and rural areas for people, and a strong cultural and entertainment dimension.
- (3) Many participants came from different locations and backgrounds and within this context, it was agreed that **existing difficulties in planning for the Atlantic Gateways in terms of their collective potential need to be overcome**. Understandable as the focus of authorities, agencies and people on their own areas might be, building up within these authorities an appreciation of a wider regional "macro development agenda" is critical.
- (4) Many of the workshop participants highlighted their work in bolstering the performance of the gateways and intervening urban and rural areas through existing plans and programmes. **The Atlantic Gateways project must therefore add value to these existing initiatives**. The focus of any future implementation of the Atlantic Gateways must be on mobilising potential around issues of mutual interest to the gateways, with each of the Atlantic Gateways having their own legitimate objectives and priorities.

3.2 POLICY PRIORITIES

Taking the findings of this report in relation to the Atlantic Gateway concept, current trends and realities and the research and consultation carried out, to move the concept forward, a set of 10 policy priorities should be advanced within an agreed timeframe.

These policy priorities can be further developed within a new process of implementing the Atlantic Gateway concept.

- (1) **Strengthening the Gateways:** The starting point for the Atlantic Gateways is to make real progress towards realising the individual development potential of the various gateways, implementing existing sound strategies for their development. They have, or are in the process of developing, ambitious development frameworks responsive to the NSS agenda. The gateway authorities need to redouble efforts to complete and implement these frameworks and they need to be assisted by the relevant Government Departments and agencies.
- (2) **Boosting employment:** Each of the gateways' plans for population growth is dependent on a competitive and innovative local business environment. Promotion of knowledge-based economic clusters in each gateway, and collaboration between appropriate learning centres to enhance the collective knowledge base of the Atlantic Gateways, is where comparative advantage will increasingly lie in the future as infrastructure qualities between regions even out.

Initiatives such as the Atlantic University Alliance are a good start and need to be continued, broadened and deepened. Other aspects that could be examined include the strengthening of regional innovation and skills transfer capacity by developing inter-firm linkages and third level facility – enterprise linkages, as recommended most recently in the Enterprise Strategy Group's report "Ahead of the Curve".

- (3) **Linking the Gateways:** Transport 21 will deliver substantial transport improvements between the gateways and Dublin. For example, four out of the five major NDP inter-urban road corridors will link Dublin to Cork, Limerick, Waterford and Galway. This will put motorways/high quality dual carriageways between Dublin and these cities by 2010. Links between the Atlantic Gateways will also be improved under Transport 21, such as the Atlantic Corridor, illustrated by the proposed dual carriageway between Galway- Limerick- Cork. Key priorities emerging from this report within the Transport 21 framework are:
 - The establishment of a continuous dual carriageway-standard road link from Galway to Cork;
 - The development of the N24 Waterford – Limerick corridor as part of a pan-European import/export corridor linking Europe to the future Atlantic "motorway of the sea" using the deepwater Shannon Estuary ports and links via Rosslare, South Wales, the UK to the European mainland;
 - Improvements to the N28 Cork Ringaskiddy and works on the N25 improving access from the Atlantic Gateways corridor to Cork airport and port and international car ferry and freight facilities at Cork.
 - Intercity-type rail connections between Galway and Cork by re-opening the part of the western rail corridor between Ennis and Athenry, including the possibility of integrating Shannon Airport and the Galway – Limerick rail corridor;
 - The reopening of the Cork/Midleton rail line and the enhancing of commuter rail facilities between Charleville and Midleton, servicing the Mallow hub, the Cork gateway and the quickly developing and expanding East Cork corridor towards Waterford.
 - Phased expansion of passenger services on the Waterford – Limerick rail line.
- (4) **Linking the Atlantic Gateways to the world:** International accessibility is vital to regional and local competitiveness and innovation capacity. A good way to support this is to improve land-side access to ports and airports by road and or rail, widening their catchments and markets and attracting new service providers, particularly through better links to the national motorway network unfolding under the NDP and planned under Transport 21.
- (5) **A regional dimension to the Atlantic Gateways:** All of the relevant Regional Planning Guidelines acknowledge the need to deliver balanced regional development and commit to its implementation. This will provide for the pursuance of the Atlantic Gateways initiative by the Regional Authorities within the established implementation framework

- (6) **Capacity for macro-level thinking:** Implementation of the Atlantic Gateways initiative is fundamentally supported by the authorities in the Gateways. The message of the Atlantic Gateways should be furthered through regular communication and information dissemination exercises such as an annual "Atlantic Gateways Seminar" where the authorities themselves and interested stakeholders, facilitated by the Department of Environment, Heritage and Local Government, would share their experiences in the development of the gateways, common areas of concern and explore the potential for collaboration.
- (7) **A corridor and gateway approach:** Proposals to activate the development potential of the gateways must include a "whole-corridor" approach as outlined in the Regional Planning Guidelines, where the development potential of urban centres and rural areas between the gateways is included in considerations about the Atlantic Gateways.
- (8) **Sustainable communities:** Real housing choice, affordability and true quality of life are increasingly influencing personal choices in a more mobile labour market context. The Atlantic Gateways could be promoted by highlighting innovative, high quality and affordable housing and living options in the manner of the "Move West" campaign being promoted by the Western Development Commission, and the "Head South West" programme in the South West Region
- (9) **A city network within a remarkable setting:** Each of the gateway cities is situated within nationally and internationally renowned natural settings. This natural environmental quality will be an increasingly important determinant of competitiveness into the future. As recommended in the Regional Planning Guidelines, an overall policy framework for the management of these natural settings and other natural environments in the intervening areas between the Atlantic Gateways should be prepared in order not only to identify important areas whose careful management is essential, but also to identify where strategic developments, such as in tourism, might sustainably harness the development potential of such areas.
- (10) **Marketing:** Finally, learning from other polycentric development initiatives, such as the Triangle Region in Denmark, the attributes and potential of the Atlantic Gateways should be presented at a European and global level, highlighting the infrastructure progress to be made and harnessing the competence of the existing agencies.

In summary, moving the Atlantic Gateways idea from a concept to a proposal being implemented in practice will involve activities in three key action areas:

Mobilisation: developing a better awareness about the shared interests of the individual Atlantic Gateways through conferences, events and various exchanges.

Boosting critical mass: which is essentially about what needs to happen at the gateway level

Enhancing connectivity: taking a broader perspective on future plans for better transport links between the gateways

3.3 TIMETABLE FOR ACTION

Various actions need to be undertaken in the short, medium and longer term to support the Atlantic Gateway concept.

In the short term, the focus needs to be on developing the concept further, boosting awareness at local, regional and national levels of its potential as well as delivering on existing plans and strategies at those levels.

In the medium and longer terms, the focus needs to shift towards developing linkages between the gateways, physically first and then in other softer areas.

An action agenda can be structured into three distinct phases and associated priorities in the period to 2020 and beyond.

Phase 1 – now

Critical mass: Priorities should include: (1) Initiating real implementation of the four Gateway development frameworks, including targeted interventions to unlock the potential for accelerated economic, population and housing growth in the gateway cities. (2) The preparation of exploratory development frameworks for the corridors between the Atlantic Gateways, as appropriate.

Connectivity: The key priority in this period is the delivery of the Transport 21 programme of connectivity improvements between the gateways and Dublin and partially between the gateways themselves. Additionally, work should be advanced on a plan for access improvements to the Atlantic Gateway ports and airports.

Mobilisation: The Regional Planning Guideline implementation structures provide the obvious framework and structure encompassing the Regional and Local Authorities and the Department of the Environment Heritage and Local Government as the lead authority in implementing the NSS, for promoting an "Atlantic Gateway Forum". This Forum would continue the progress made in this project in highlighting the potential of the Atlantic Gateway concept through practical workshops, information seminars and work groups linked to key business interests and would be structured into two interconnected consultative and implementation panels.

Figure 7 shows in schematic form what the spatial development priorities might be in phase 1.

Phase 2 – 2007 to 2013

Critical mass: Within this phase, the gateway development frameworks will be coming up for review. In this regard it will be important to ensure that the reviewed regional planning guidelines and updated frameworks are responding to longer term population, housing and employment trends. With the gateways performing more strongly at this phase, close attention should be paid to ensure that the development potential of intervening urban and rural areas to accommodate structured population growth is being harnessed, aligned with strategic transportation and rail corridors;

Connectivity: Building upon the Transport 21 investment in major interurban road and rail network improvements between the Atlantic Gateways and Dublin, the priority should begin to shift in focus to enhancement of roads and public transport linkages between the Atlantic Gateways, particularly the Atlantic Corridor, through targeted interventions aimed at existing bottlenecks and substandard links;

Mobilisation: Regional planning guidelines/NSS implementation should provide a structured input to the identification and monitoring of delivery of investment priorities post-2007. This will also support and provide inputs for any mid-term review of the Regional Planning Guidelines. Effective marketing of the Atlantic Gateways will be essential. Policy frameworks for intervening rural areas should be prepared. Further strengthening of public/private partnerships in alliance with business interests would also be recommended. Figure 8 presents some spatial development priorities that would be the focus for efforts in Phase 2.

FIGURE 7 - Gateways & Main Directions for Growth



Phase 3 – 2014 - 2020

Critical mass: In this phase, the longer term vision for the gateways individually set at the beginning of the process should be taking shape and at this point with transportation links much improved between the gateways, it will be vitally important to review/update and implement sub-regional development strategies for the extended journey to work areas that will extend out from the gateways along these enhanced transport networks to ensure compact urban form and sustainable transport patterns.

Additionally in this phase, consideration should be given to how the Atlantic Gateway concept might be extended, northwards to Mayo and the gateways of Sligo and Letterkenny/Derry, westwards to areas such as Kerry and eastwards, particularly to the Midlands.

Connectivity: With good links in place between the Atlantic Gateways and Dublin and between the Gateways themselves, it will be vitally important that more outlying rural areas containing key assets such as tourism, leisure and recreation spaces have been effectively connected into the gateways through "fit for purpose" road and public transport networks, such as good quality regional and local road systems and rural bus networks. Transport 21 will provide the critical framework for this to be achieved. In phase 3, most of the Transport 21-related improvements in connectivity between the Atlantic Gateways should be in place. Building on such achievements, it should be possible in this phase and subsequently to consider further enhancements such as the reinstatement of the direct rail link between Limerick and Cork (Charleville-Patrickswell).

Mobilisation: The Atlantic Gateway Forum should continue to maintain and develop awareness of the Atlantic Gateway concept, providing structured input to the identification and monitoring of delivery of longer term investment priorities and linked to the implementation arrangements for the National Spatial Strategy.

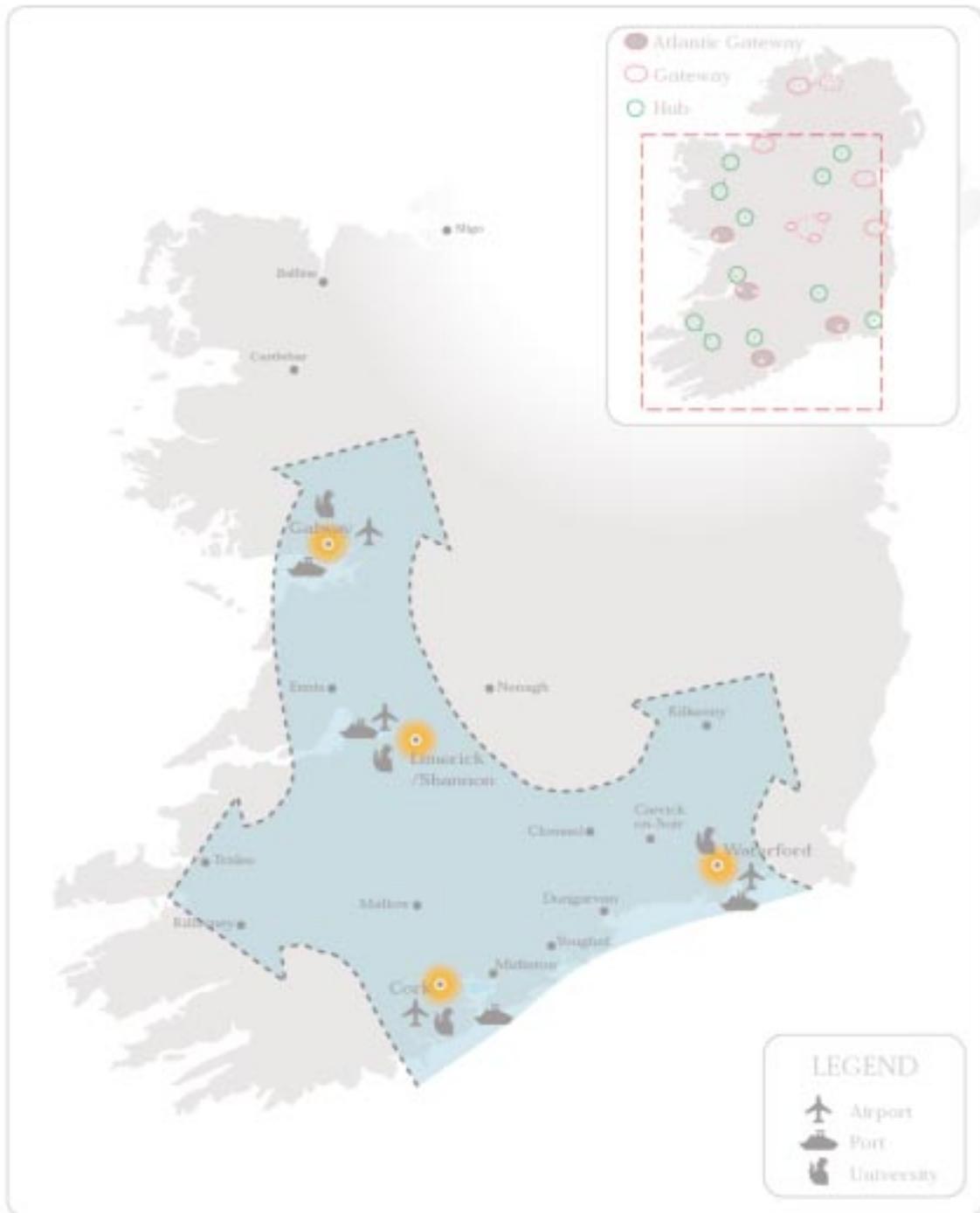
Figure 9 presents an indicative schematic illustration of the more integrated Atlantic Gateways in the future.

3.4: ATLANTIC GATEWAYS: WHAT EACH CITY REGION SHOULD DO DIFFERENTLY

This report has found that the regional and local authorities covering the four Atlantic Gateway cities need to have a much stronger collaborative role in advancing their shared interests and strengthening their local economies and the wider combined economies of the cities. To this end, each of the city regions should:

- Vigorously pursue the implementation of the city region planning strategies prepared since the NSS with, as appropriate, dedicated implementation resources;
- Prepare a highly focused investment priorities strategy targeted at investments that would leverage substantial lifts in residential, commercial and employment activity that would have high internal rates of return and have the capacity for substantial private finance. Such a priorities strategy would obviously need to build on existing plans;
- Take a combined approach in influencing the determination of longer term investment priorities that would be mutually beneficial such as the transport links between the Atlantic Gateways;
- Participate in the Atlantic Gateways Forum to exchange experience and perspectives, raise issues and maintain progress in implementing the Atlantic Gateways initiative.

FIGURE 9 - Atlantic Gateways: Phase III
Ireland's Second Metropolitan Corridor.



3.5 WHAT GOVERNMENT SHOULD DO DIFFERENTLY

It is Government policy to fully implement the National Spatial Strategy. With the emphasis in the Strategy on the role of the regional cities as Ireland's best prospects in the medium term for achieving substantial progress towards more balanced regional development, it is clear that for the Atlantic Gateway concept to work, Government must:

- Deliver the commitments promised under the NDP;
- Shift focus after the current NDP planning period to include enhancement of connectivity between the gateways, including the next generation of structural fund programmes;
- Match locally proposed public and private investment with truly additional public investment to help realise the collective growth potential of the Atlantic Gateways;
- Facilitate and support capacity building initiatives such as the Atlantic Gateways Forum and linking this forum to the NSS implementation structures;

3.6 PRIVATE SECTOR INVESTMENT

Accelerating development, population and economic growth in the gateways will ultimately depend on the buy-in and confidence of the private sector in the Atlantic Gateway concept and follow on investment in development activity, in entrepreneurship and in public private partnerships. The private sector is playing and will continue to play the key role in transforming the individual Atlantic Gateways through strategic planning frameworks such as CASP in Cork, the Galway Planning and Land Use Study, the Limerick Riverside City initiative and Waterford PLUTS.

With the private sector having a key role in shaping and delivering the Atlantic Gateway concept, it automatically follows that private sector participation within the concept's implementation arrangements is vital so that the investment community and public authorities can work alongside each other in monitoring progress and developing individual initiatives.

3.7 MOVING FORWARD

Implementation of this Atlantic Gateway feasibility study offers an opportunity to build on the positive momentum developed in the process so far and take forward a key proposal in Ireland's National Spatial Strategy. It is vital that the process in the future enables the emergence of a pan-regional macro development agenda.

To ensure that the process "hits the ground running", but adds value to existing structures without duplication, it is proposed that:

A vehicle to drive the Atlantic Gateways concept forward be established drawn from the existing authorities and agencies in the region, to be known as the Atlantic Gateway Forum. This Forum would have two main elements – (i) a wide consultative forum drawn from key stakeholders across the gateways and their regions and (ii) a tightly drawn Implementation Team built around the existing Atlantic Gateway committee and with the active involvement of the local authorities, the DEHLG and other key interests including the private sector. Both the consultative forum and the implementation team would be closely integrated with the regional planning guidelines.

The consultative forum would be aimed at establishing a panel of key interests that would both influence the implementation team, providing the broad strategic direction and serve as an authoritative group with whom implementation activities and ideas could be presented and developed.

The Implementation Team would be responsible for:

- Providing leadership in the progression and implementation of the concept;
- Ensuring that the Atlantic Gateways project has a national and international profile;

- Acting as an emissary for the implementation of Atlantic Gateways with national stakeholders such as the Department of Finance and other regional and local stakeholders.
- Enabling and facilitating co-operation between various authorities and agencies operating in and or concerned with the Atlantic Gateways.
- Enhancing awareness of and consensus about the potential of the Atlantic Gateway concept.

Implementation would follow certain principles e.g.:

Emphasising **long term thinking**, looking to long-term trends and opportunities while seeking, where possible, "quick wins";

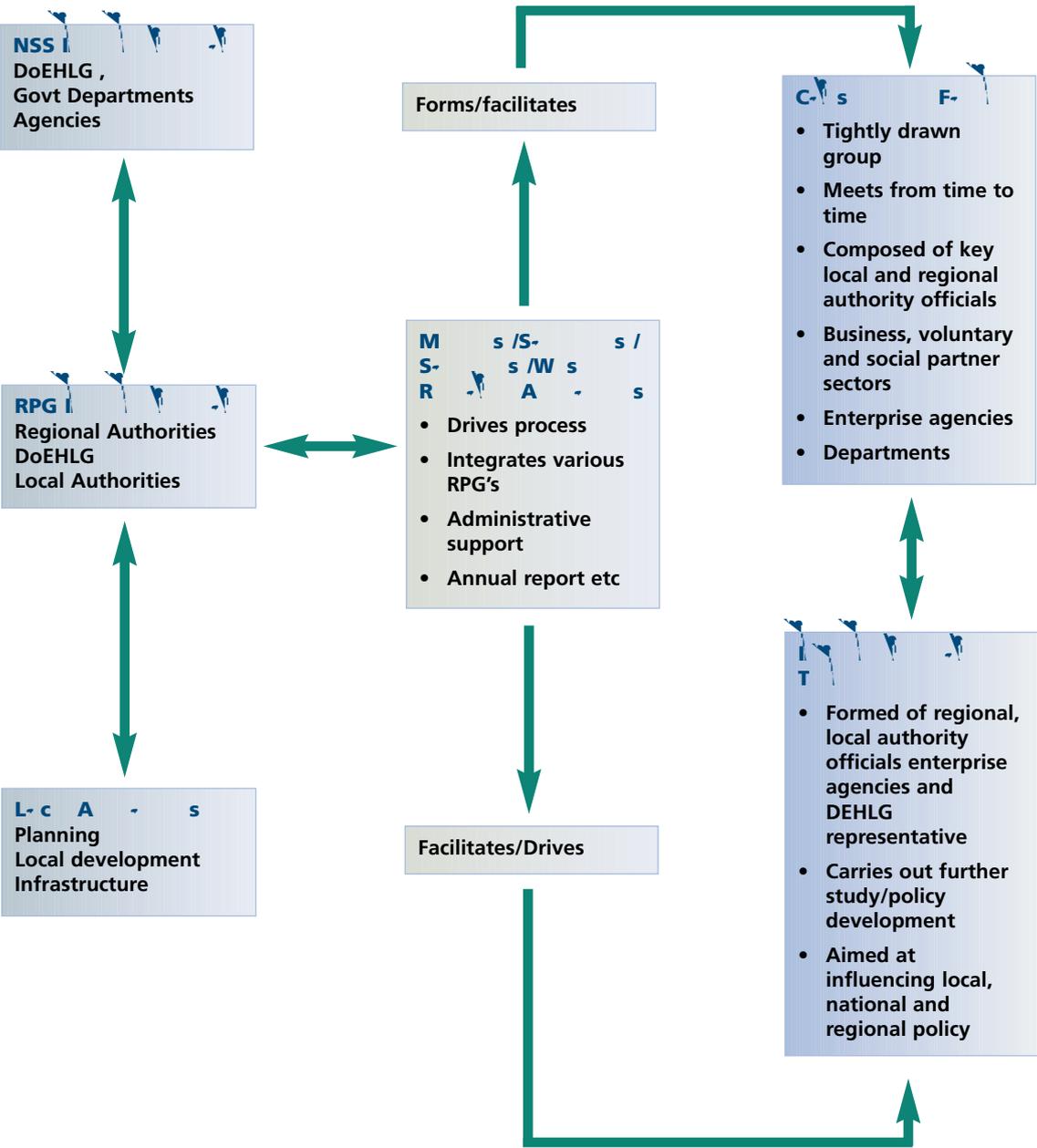
Adopting **integrated solutions** that bring the urban and rural dimensions of the Atlantic Gateway concept together;

Working in **partnership** with other stakeholders, exchanging information, developing awareness and consensus about what needs to be done.

Due to the level of work that would be likely involved, it is proposed that the development agencies, together with the regional and local authorities and DEHLG, explore the possibility of pooling their collective resources to support and animate the project. This could include, for example, an annual series of Atlantic Gateway seminars ongoing research and EU comparison studies. Potential funding streams in this regard may include future EU trans-national programmes.

While the Implementation Team can provide back-up, individual initiatives will be the responsibility of the relevant bodies such as the local and regional authorities and the development agencies.





3.8 CONCLUSION

All current indications are that Ireland will continue to be a fast developing country into the future. On a business as usual basis, current projections indicate that most development is likely to gravitate around the eastern seaboard part of the island, concentrated on the Dublin Belfast corridor.

However, the Atlantic Gateway concept is not a business as usual scenario. The concept is about taking decisive steps and actions to forge an alternative scenario where the island of Ireland will have in the period to 2020 and beyond, not one but two rapidly growing major metropolitan corridors along both the east and west/south coasts offering to society and to investors a wider range of areas on the island where economic opportunity, services and environmental quality are to the highest standards.

In the world of the future, competitive and successful places will be the ones that establish strategic alliances among the key local stakeholders in their development as well as strategic alliances with neighboring places. Within the context of the Atlantic Gateways concept, this means positioning the local economic offer of the individual cities within the strengths of the wider Atlantic Gateway area.

This feasibility study has indicated very clearly that the Atlantic Gateways area is one of the key elements to delivering the Government's objective of more balanced regional development as presented in the NSS. It is one of the key elements because:

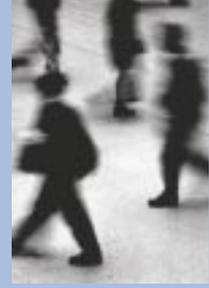
- The combined population of the Atlantic Gateways area is substantial in relation to the population in the Greater Dublin Area,
- The combined economies of the four Atlantic Gateways regions is only slightly less than that of the Greater Dublin Area and measured in terms of increase in the value of economic production (GVA), the four Gateways regions economy grew faster than that of the Greater Dublin Area over the seven year period up to 2002
- Key infrastructure programmes (e.g. national roads and rail) will deliver significant benefits within the Atlantic Gateways area in the coming years
- Local initiatives involving collaborative efforts (e.g. the Atlantic University Alliance and the Atlantic Technology Corridor) have evolved and are indicating positive results
- Regional Planning Guidelines are in place, which provide a broad framework within which development can be encouraged and guided.

Looking ahead into the future, the key issue for now is how best to realise the potential which has been mentioned above. Clearly a number of critical actions need to be put in place, including

- The key local stakeholders (local authorities, business, the academic sector, development organizations, non-governmental organizations etc) adopting a collaborative approach to a wide variety of development issues.
- Further increases in the connectedness between the main Gateway cities, and between the cities and their hinterlands
- Strengthening the necessary collaboration arrangements to build the momentum which is necessary to carry the initiative forward.

Finally, the Atlantic Gateways initiative is a big project, which involves many sectors and interests. Furthermore it will require both immediate and sustained commitment and resources in order to bring the opportunities and potentials to fruition that so clearly exist in the area.





APPENDICES

APPENDIX A: THE NATIONAL SPATIAL STRATEGY

The National Spatial Strategy (NSS) provides a strategic framework for future planning in Ireland.

The NSS has highlighted the major economic transformation that Ireland has undergone in the recent past, with unprecedented progress across key economic indicators, benefiting all regions of the country. While the positive impact is evident, the imbalance between regions in the distribution of economic progress is evident. This includes congestion in the Greater Dublin Area, rapid growth of other major urban centres and implications of these trends for the smaller towns and villages and rural areas.

The NSS aims to provide for the first time in Ireland an explicit overall national framework for dealing with spatial issues, within a sustainable national economic and budgetary context and within an island of Ireland perspective, which can contribute to the enhancement of national competitiveness and a high quality environment.

Within each of the regions, regional planning guidelines have recently been completed with regional strategies, giving effect to the recommendations of the NSS. This has been led by the Regional Authorities.

The Gateways

The NSS notes that rapid growth of the main cities and surrounding regions of Cork, Galway, Limerick and Waterford points to their possible role in driving the development of their hinterlands and their potential to provide strong counterbalance to Dublin, both individually and collectively. The NSS suggests a targeted approach based on the focused strengthening of a small number of urban centres, the key to counterbalancing the eastwards pull of the Greater Dublin Area and the Dublin-Belfast corridor, and lifting the level of development of entire areas. Balanced national growth and development need to be secured with the support of a small number of nationally significant centres, whose location and scale support the achievement of the type of critical mass necessary to sustain strong levels of growth in the regions.

Linkages for Critical Mass

Increasing interaction is emerging between Dublin and Belfast. This is a significant asset for the whole of Ireland, according to the NSS, in line with the European-wide trend of increased co-operation between cities to enhance competitiveness. The interaction has major potential benefits for the whole of the island of Ireland, according to the NSS.

The NSS also emphasised that strengthening the critical mass of the existing gateways of Cork, Limerick, Galway and Waterford to complement Dublin's successful national spatial role offers the most immediate prospects of establishing more balanced patterns of development over the next few years.

This concern for linkage and complementary actions between towns suggests potential for a gateway network, according to the NSS. The NSS recognised that the existing gateways of Cork, Galway, Limerick and Waterford are strategically located in different parts of the country, with considerable potential for further development and expansion. The NSS suggested future possibilities for combining the complementary strengths of the cities and expanding such interaction to achieve a critical mass strong enough to balance the type of critical mass that has been achieved by Dublin.

APPENDIX B: POLYCENTRICITY

Background

"Polycentricity" as a planning and development challenge has been attracting increasing international attention in recent years. Polycentricity occurs when two or more cities have functions that complement each other and, even more so, if the cities co-operate with each other in order to be able to act jointly as a larger city. Policies for polycentricity stimulate the functional division of labour, as well as the flows and the level of cooperation between neighbouring cities. Polycentric development in regions helps to counterbalance the dominance of the national centres.

These were the observations of a recent report published by ESPON, the European Spatial Planning Observatory⁷. ESPON has been established to address spatial development and planning from a European point of view: diagnosing trends, examining territorial patterns and developing policy instruments.

Polycentricity is opposite to "monocentricity", where service provision and territorial management competence is increasingly concentrated in a single centre. Polycentricity is also opposed to urban sprawl, in which the structure of secondary centres is diluted in a spatially unstructured continuum. Polycentricity is about promoting the balanced types of urban networks that are most beneficial from a social and economic point of view.

Urban complementarities are important, according to ESPON. Two or more cities can complement each other functionally by offering the citizens and companies in their conjoined hinterlands access to urban functions that could usually only be offered by higher-ranking cities. Rather than competing to build up the same urban functions, ESPON recommend that cities should co-operate by joining existing assets, in particular assets that are complementary.

The idea of polycentric development puts an emphasis on the development of specialised regional competences, where synergy and strength are sought and developed through networks of specialists, suppliers, specialised education and labour markets. Much of this is contained in abilities and competences that are tacit and informal, thus difficult to codify or reproduce elsewhere.

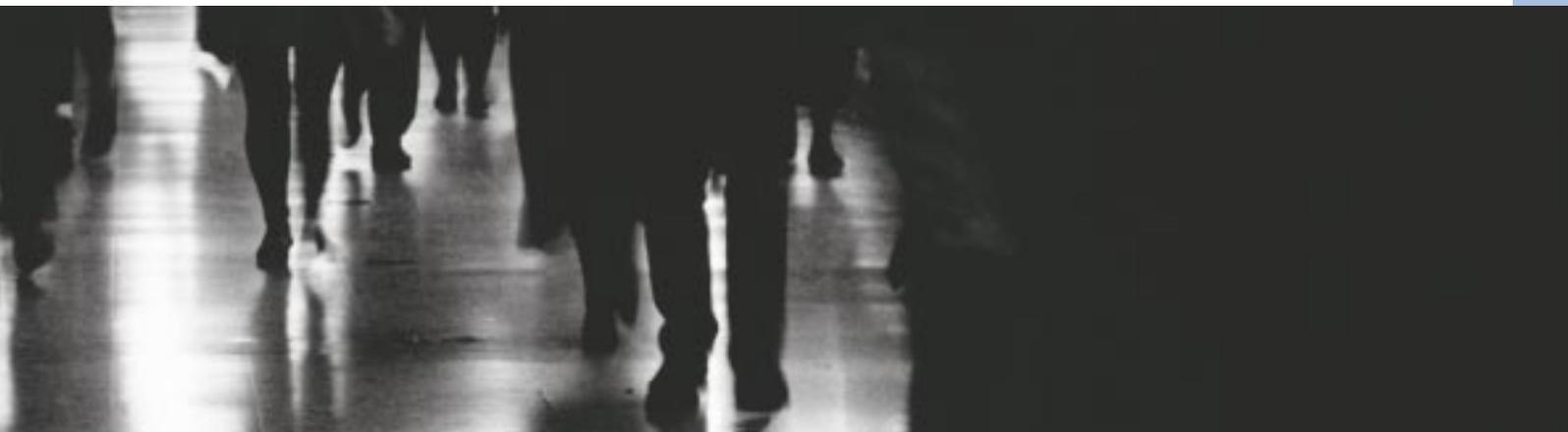
Areas of Specialisation

In terms of promoting polycentricity, ESPON reviewed seven areas of functional specialisation which could be significant.

Population

The mass of an urban area is measured in terms of population. The demographic weight of an urban system constitutes the most important factor for both private and public sector investments of certain services and facilities. Demographic factors also correspond to human resources i.e. being able to tap into a labour force that is large enough to offer sufficiently diversified skills. Functional links between urban areas can thus help to support a more significant labour market area.

7. Potentials for polycentric development in Europe (ESPON, 2004)



Transport

The connectivity between urban areas constitutes one of the central factors of polycentricity. Any sharing of economic functions cannot be really effective unless accompanied by transport infrastructure and good accessibility. Transport patterns in Europe tend to be monocentric, focused on main cities and transport hubs. Development of transport services between lower-tiered centres can be instrumental in promoting polycentricity, thus helping to counteract the larger cities.

Tourism

Tourism can be a strong force in polycentricity, particularly led by the private sector. Some urban areas tend to be strong in tourism, but not in other functions, particularly in the Alps and the Mediterranean. A number of regions have grown considerably under the influence of polycentric approaches to tourism.

Manufacturing

Manufacturing industrial regions have been in decline for some time, and certainly since the emergence of structural change in the service industries. Nevertheless, they continue to act as strong backbones of the economy in many regions. However, many industrial urban areas trade globally, in that the whole world is their market area. These global relationships define the character of these industries. Such global relationships may militate against local linkages and polycentricity.

Knowledge

The knowledge function, in terms of the number of students and higher education institutions, is an important factor affecting polycentricity. In all countries the capital city is the most important node in this regard. Thus, knowledge can make existing main centres even more strong. However, ESPON also found that the higher education structures in most countries still favoured a polycentric pattern, with considerable future potential for polycentric systems built around knowledge networks.

Decision-making in the private sector

The capacity of an urban system is not solely dependent on its level of competitiveness and demographic weight, but also on its actual economic attractiveness to private investors. Business decision-making functions locate in places with good accessibility and that are close to business services. Future growth is expected to take place particularly in private sector services. Shared business services offer significant potential as instruments of polycentricity.

Decision-making in the public sector

Administrative functions have a significant role to play in polycentricity. Administrative cities have a strong public sector service role. The strong hierarchy of urban systems in Europe is related to the development of administrative functions, but also requires support from other commercial and development functions as well. Public administration and polycentricity go hand-in-hand.



The ESPON report also examined whether polycentricity could be developed by building upon functional specialisation between towns. Could neighbouring cities develop a polycentric integration? This could be achieved, for example, if neighbouring cities shared common travel-to-work areas so that people living in the area could enjoy the shared services of two or more cities. If such common sharing were possible, then development of a common critical mass could be an important feature of urban development throughout Europe. But, very significantly, ESPON concluded that opportunities for this type of sharing were heavily concentrated in the core of Europe. In the core, cities were very large and close together in central urban regions with major potential for polycentricity. Examples include the Ruhr in northern Germany and the Randstad (Rotterdam, Amsterdam, the Hague) in the Netherlands.

However, in the periphery, distance was greater between cities, and their size was relatively smaller. Hence, possibilities for polycentricity are substantially weaker in the peripheral regions. This did not mean that

polcentricity policies were inappropriate in the periphery: they could still be very important. But ESPON did point out that the market and spatial forces favouring polycentricity were much stronger in the core areas of Europe than the periphery.

P- / c T - P- c s

Issues in policy delivery of "government" and "governance" was seen by ESPON to be central to the development of polycentric regions. Government focuses on formal hierarchies of power and official procedures while governance is about networks and complex relationships: self-organisation among mutually interdependent actors. Approaches based on governance principles are essential to the success of polycentric urban regions, according to ESPON.

In the polycentric urban region, which is made up of a number of towns and cities which are historically and politically independent, actors are drawn not only from formal institutions of government, but they are also spread among public, private and voluntary sectors. In addition, the action cuts across the boundaries of different political and administrative jurisdictions. Moreover, policy objectives for polycentric strategies are highly complex, dependent on a wide range of actors in the public and private sectors, involving inevitably a high degree of fragmentation.

Key issues are thus around collective action and consensus-building.

- The major ingredient is the capacity to act collectively, measured by several factors: large number of civic organisations; high levels of inter-institutional interaction; a culture of collective representation which unifies individual interests; a strong sense of common purpose together with a shared set of cultural norms and values.
- Consensus building requires the foundations of "capital": intellectual capital (knowledge), social capital (teamwork and partnership), political capital (capacity to take action) and material capital (financial resources). All these aspects of capital need to come together for successful consensus.

The concept of partnership has come to occupy a central place in territorial policies. Partnerships between the public and private sector are now commonplace as vehicles for development and regeneration. Policymakers now talk in terms of the 'partnership economy' and the need for collaboration, co-operation and programmes of joint action between the public and private sectors.

Partnerships provide several benefits that would not otherwise be produced. Synergy can be created by pooling resources. Furthermore, additional resources can be attracted from the national system, greater than if the partners worked in isolation. Budgets can be enlarged by input from the private sector. Public-private partnerships can also unlock complex land ownership patterns, as well as promoting image and identity of places. Partnerships can help to build confidence and reduce risks for development strategies.

A survey of partnerships by ESPON found that most partnerships did not have the executive power to implement their objectives. However, they can certainly influence the policy-making processes and they often seek implementation by making recommendations to the decision-making bodies. Furthermore, some seek to implement their strategies by lobbying, through undertaking studies and specific programmes, or through conducting some specific responsibilities.

Added value of partnerships includes development of strategy, orienting partners towards specific projects, networking and advocacy. Capacity building and place promotion are other important functions of partnerships.

Weaknesses of partnerships were found to be most commonly in poor financial resources, lack of political commitment and limited experience of the partners in joint working.

ESPON pointed to a number of examples of partnerships in polycentric urban regions including:-

In Germany, the Kommunalverband Ruhrgebiet (Ruhr Communal Association) includes 53 municipalities in a formal

partnership dating back to the 1920s, originally established to co-ordinate the growth of the mining industry, now working in planning, urban development, industry and infrastructure.

In Portugal, the Association of Municipalities in the Lima River Valley was formed in 1994 to create a critical mass of resources in the area, promoting co-operation and complementarities between inland and coastal districts, mountain and valley areas and different urban functions



In the UK, the "Northern Way" provides a significant example of emerging polycentricity policies⁸.

This initiative stems from the Sustainable Communities Plan, launched by the office of the Deputy Prime Minister in the UK in 2003. The plan set out a long-term programme of action for delivering sustainable communities in both urban and rural areas of England. It aims to tackle housing supply issues in the South East, low demand in other parts of the country and the quality of public spaces.

Its initial focus was on the four major growth areas in and around the South East of England, including the major area of development along the Thames known as Thames Gateway. The Sustainable Communities Plan is now evolving to consider in more detail other parts of England. In doing so it is driving inter-regional work by the regional development agencies (RDAs) and Regional Planning Bodies (RPBs) in the North, the Midlands and the

Points to note in particular:

- Integrated approach: Links are not just between cities but city regions; the whole of the North should benefit, including rural areas; and there are links between economic development and housing policies
- The report reviewed the experience of other countries that have tried to take an inter-regional approach to growth: the Ruhr and Rhine/Maine in Germany, the Randstat in the Netherlands and the Oresund/Malmö/Copenhagen areas of Sweden and Denmark. The report also noted the need for strong regional leadership: bold development plans defining investment priorities, governance decisions at the right level (region wide at the regional scale; city regions at the city region level), major transport infrastructure and flagship renaissance projects, and effective promotion of the region.
- The strategy aims to improve access to airports and seaports for companies in the North to Ireland and continental Europe and also to relieve congestion in the south of England.
- The strategy aims to invest in link roads between the city regions to complement investment plans within the regions.
- Airports are considered both from the point of view of improving access to them but also reserving land sites around them for economic activities.
- The strategy calls for a national ports transport strategy and makes a connection between improving ports and the EU Highways of the Sea initiative.



The ESPON report recommends that cities should be encouraged to co-operate and join forces, with the aim of improving their ranking in the national urban systems. Economic integration between cities should be promoted and urban policies should focus on the development of linkages between cities.

There are several areas where co-operation can be fruitful. Physical infrastructure (road, rail) improves links and reduces travel time between the centres. Investment in transport infrastructure can increase integration over a large area. Soft infrastructure (e.g. culture, education) can contribute to the functional specialisation of cities and stimulate the division of labour between them.



Strategic planning and co-operation between cities are often the key issues at this level. The mental distance between neighbouring cities may in some cases be more important to overcome than the actual physical distance. The integration of larger city regions demands co-operation from a large number of stakeholders in the public as well as the private sector, i.e. good governance.

Governance aspects are a major challenge. Urban co-operation has to be dealt with within the framework of governance, as city governments cannot integrate urban relationships on their own. Further diversification of decision-making is influenced by the fact that partnerships between public bodies, as well as those between public and market actors, are increasingly necessary for urban and regional regeneration.

The key challenge of governance for polycentricity is then to create the conditions that allow collective action to take place. New opportunities are opened up, as are new challenges due to the diversification of the interests involved. Even though most governance partnerships do not hold executive power, they may become very influential. This is due to their ability to communicate their goals and strategies to a wider public, and thus influence decision-making processes.

To this end, national governments are urged to improve the framework for local governance. This includes more robust policy frameworks and greater political commitment to support polycentricity approaches.

Strategic planning is a key instrument of inter-city governance and co-operation. The process of strategic planning can help to transform governance policies into formal decision-making processes. Strategic planning is a critical tool to build the consensus for polycentricity policies between cities.

APPENDIX C: SPATIAL TRENDS IN IRELAND AND THE ATLANTIC GATEWAYS

Population Density

The map following of "population density of electoral divisions" shows the distribution of total population according to the 2002 Census.

The large relative size of the Dublin region is immediately evident. Clustering around Dublin Bay, the Dublin region extends north and south to Drogheda and Wicklow, with extended developments in south Meath and north Kildare. Significant areas of restricted development can be seen around Dublin airport and the Wicklow mountains. A strong pattern of neighbouring and commuting towns is also visible outside the continuous built-up area around Dublin, such as Naas, Newbridge, Kildare, Trim and Navan.

Outside Dublin, the major centre is obviously Cork, with a strong pattern of development around Cork Harbour, particularly pronounced towards the west and the north, including Mallow (hub) Blarney, Ballincollig and Carrigaline, with a distinctive eastern development towards Midleton. Expansion areas outside Cork are evident east towards Youghal, north to Mallow and west towards Macroom and Bandon. The existence of a substantial Cork Metropolitan Area outside the immediate city is clear.

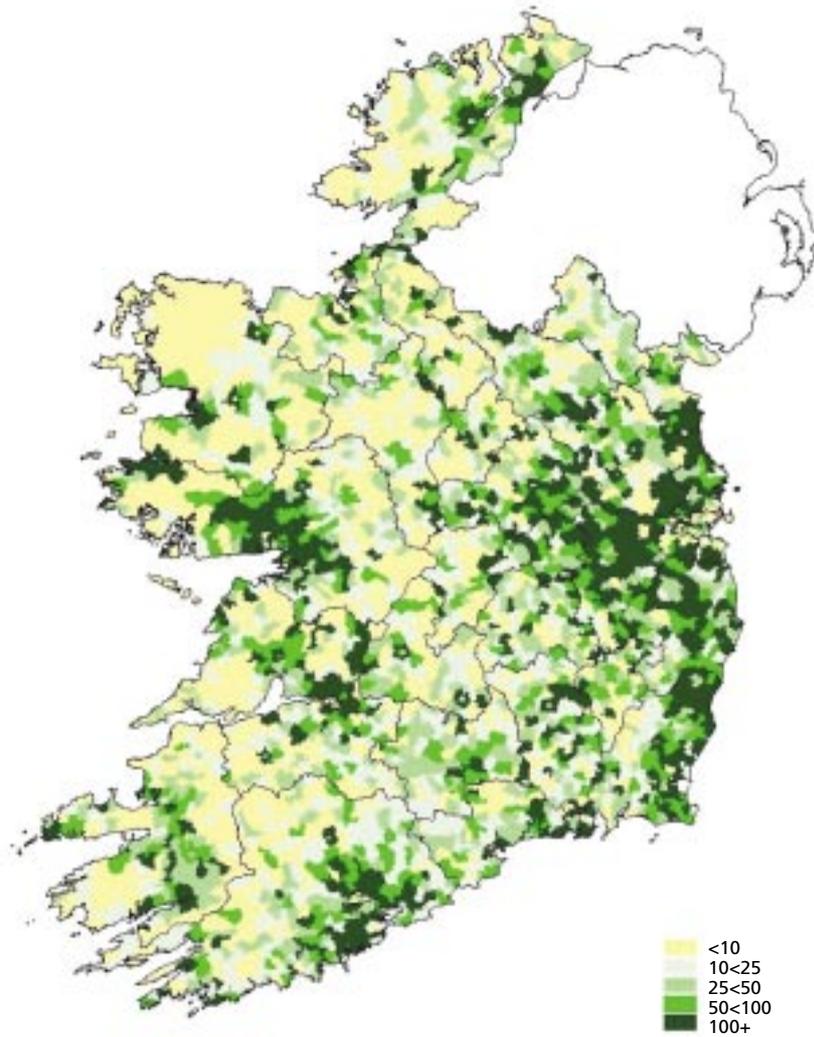
Limerick, Ennis and Shannon can be seen as a distinct contiguous urban area, with a single development zone linking the three towns. Limerick City's immediate sphere of influence extends over a third of Limerick County, although with weaker spread to Tipperary. The Shannon hub and other towns in the centre form a network of focal points within the area. Ennis to the north is a significant centre, although with somewhat weaker spread to the neighbouring rural areas.

Galway is clearly the major centre in the west, with developments in Galway City and along Galway Bay, also to the east towards Oranmore and Claregalway. The extension of Galway development to the rural areas round the city are evident, including a strong northern pattern of development towards Tuam.

In the south-east, the network of strong towns is evident, with substantial clusters of development around Waterford, Clonmel, Carlow, Kilkenny, New Ross, Enniscorthy and Wexford, although no single centre seems to be especially prominent.

Elsewhere in Ireland, the prevailing pattern is one of county towns spread at 20-30 mile distance, with higher density of development in the southern half of the country, and sparser development in the north and west.





Persons per square kilometre

Population Change

The change in population is a significant factor as it shows the direction and form of new development that is taking place. The map classifies the country according to percentage change ranging from decrease (light colour) to the highest category of over 15% growth (dark colour). In interpreting these trends, it should be noted that this map only shows percentage, but not absolute, increase. Thus some rural areas may display high percentage growth, but with relatively small absolute numbers.

The spatial expansion of the Dublin area is perhaps the most immediate and dramatic pattern, now growing on both a north/south and westerly axis. To the north, development extends fully to Louth while southerly growth patterns are well established all the way to Wexford. Indeed, the existence of a strong Dublin/Wexford growth corridor is particularly evident. The Dublin development zone thus now covers the full length of the eastern seaboard, from Dundalk to Wexford.

The westerly axis of Dublin's outward expansion is also clear, with corridors of population growth covering north Kildare and most of Wicklow, but now extending to Westmeath, eastern Offaly and northern Laois. The large scale of the expanded Dublin region, relative to the other gateways, is clearly evident.

In Cork, the outward expansion of the city's influence can be seen both to the east and the west along the coast, with an extended development zone now stretching from near Youghal on the east, almost reaching Clonakilty on the west. In addition, strong expansion to the north is clear with significant fingers of population growth in that area. Indeed, a pattern of continuous development between Cork and Mallow seems to be emerging. The Cork gateway is therefore extending both towards Limerick (via the Mallow hub) and to East Cork towards Waterford

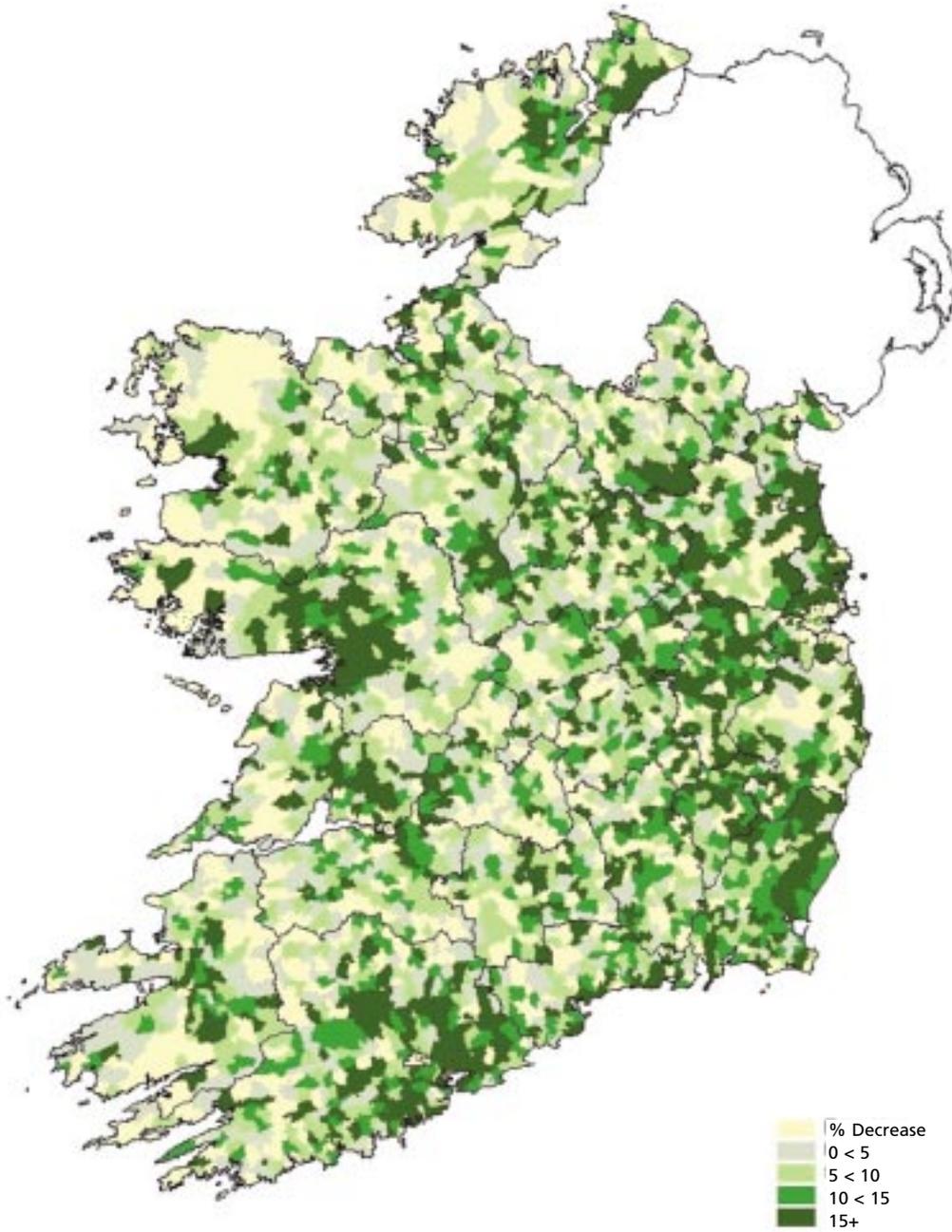
Limerick, Ennis and Shannon display considerable outward growth as a single population zone, with the most intensive increases north of Limerick City into County Clare. Fingers of population growth also extend south to Limerick county and north of Limerick around Lough Derg. Ennis is evident as a point of strong growth, with considerable spillovers into west Clare and also north towards the Galway county boundary

Galway is clearly a location of major growth. While expansion has been relatively limited along Galway Bay, the heaviest growth shows up north west and east in a pattern of almost continuous development zones to Oughterard, Tuam and Loughrea. Galway's relative dominance in Connaught is obvious, with the city's outward expansion now taking almost half of Galway county, extending even to part of Mayo.

Evidence of a Limerick/Galway corridor is becoming apparent. Population increase now extends between the two centres. The corridor effect is strengthened by the existence of significant centres between the two, Ennis and Shannon, with the band of population increase also being supported by smaller settlements of Crusheen and Gort.

The South-East is typified by separate clusters of population growth. Around Waterford, including areas towards the south and east of the city, is evidence of significant population increase. Other main expansion areas are concentrated in Clonmel with a more extensive area of development around Kilkenny. Apart from these three individual clusters, the other major feature of growth in the South-East is the coastal corridor of Wexford, an extension of the Dublin development zone southwards. Carlow also has been influenced by Dublin's expansion. The pattern in the South-East is, overall, one of significant but separate clusters of growth, with little evidence of interaction or connection between them.

Outside the gateways, the difference between the two maps of population density and population change is striking. The population density (static picture) appears relatively stable, with a pattern of county towns distributed at regular intervals. In contrast, the map of population change (moving picture) shows a greater degree of concentration, with growth focused on certain towns along the western seaboard: Kerry, Galway, Mayo, Sligo and north Donegal, and conversely with much weaker patterns in the central band in the middle of the country.



Reproduced with the permission of the Ordnance Survey

Travel to work

Studies by the National Institute for Regional and Spatial Analysis (NIRSA) have highlighted trends in travel to work areas around the Gateways, shown in the map following.

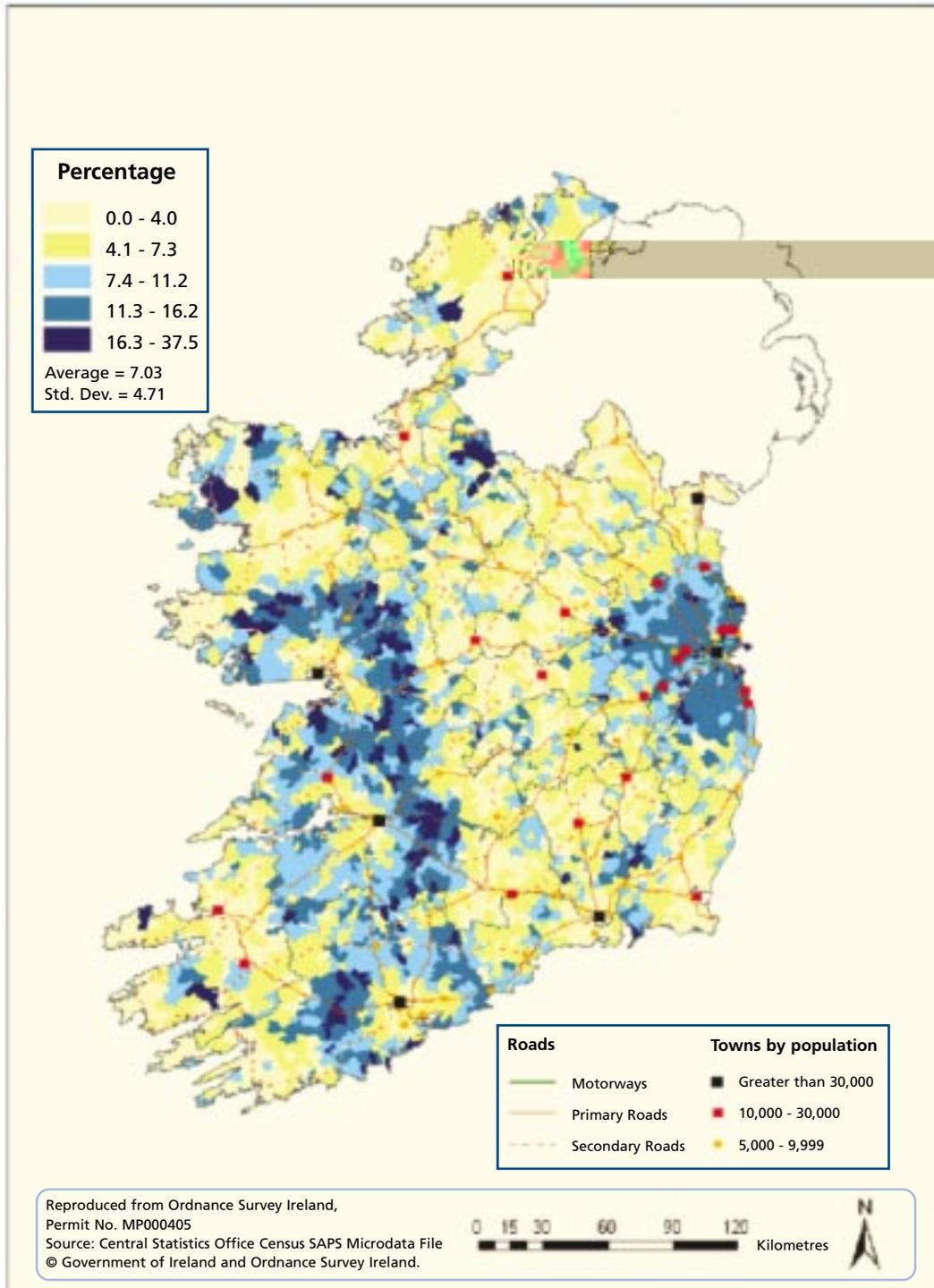
The pattern of population in the outer limits of the travel-to-work areas shows up the substantial rural impact of the gateways. Around Dublin, the population travelling over 45 minutes to work clusters around Wicklow, north Kildare, Meath and Drogheda, particularly influenced by congestion constraints in Dublin itself.

Significantly, a wide band of travel to work is distinctive around Cork, Limerick and Galway. The existence of a significant rural population dependent on commuting to the gateways is marked. Around Cork, high levels of 45-minute travel are evident from Youghal and Mallow, but heaviest towards west Cork, including Macroom, Clonakilty and Kanturk. Around Limerick, Ennis and Shannon, a circular band of an outer commuting zone is clear, extending to west and south Limerick, and north Clare. Similarly, the outer commuter zone from Galway embraces most of the county, including Oughterard and Ballinasloe. In the South East, a different and more dispersed travel-to-work pattern is evident, with some small clusters of long-distance commuting, but not appearing to be centred on any single centre.

Overall, the commuting picture confirms the extensive reach of the gateways to rural areas, with a high level of rural population dependent on employment in the gateways. It also demonstrates that the travel to work areas of the three gateways are at present relatively independent, comprising distinct and clearly defined zones around each centre. However, there is also evidence of significant overlap on the fringes of the zones. Improved communications in the future could well greater integration of the separate travel-to-work areas.

Conclusion

The key evidence emerging from the population trends is that the Atlantic Gateways cannot be viewed in isolation. While the gateways are indeed distinctive as growth points in their own right, their strategic role must also be understood within the wider system of corridors, networks and clusters. It is this wider system of linkages that will strengthen their capability and help to exploit the potential of the Atlantic Gateways for balanced development in Ireland.



APPENDIX D: ECONOMIC ISSUES

When reviewing the economy in the Atlantic Gateway area⁹ (South East, South West, Mid West and West regions) it is useful to consider a number of main issues:

- Employment and unemployment patterns in the economies in the four regions which comprise the Atlantic Gateway area both current and over time
- The structure, size and character of economic activity in the area
- The efficiency with which this activity is occurring, and
- The extent to which the economic activity is contributing towards personal incomes.

There are of course other economic factors that could usefully be explored in relation to the Atlantic Gateway area but suitable data at regional level is lacking. However, through considering these issues it is possible to gain insights into the operation of the economy in the area.

Given the important role for the Atlantic Gateway areas in relation to Dublin it is relevant to make comparisons with the Greater Dublin Area (Dublin and Mid East regions) where appropriate.

In this Appendix no attempt has been made to draw inferences from the data which were analysed. Instead, the aim is only to provide relevant facts.

D.1 EMPLOYMENT

Overall

- In 2002 the four Atlantic Gateway regions employed 7 000 more people than the GDA (689k vs 696k). Only 270k people were employed in the rest of Ireland (Border and Midlands regions).
- In 2002 the South West employed most people (250k), followed by the South East (185k), the West (167k) and the Mid West (151k).
- The participation rate (people employed per 1000 population) in the four Atlantic Gateway regions is somewhat lower than the rate in the GDA (437 vs 482).
- There is relatively little variation in the participation rate between the four Atlantic Gateway regions.

Sectoral Employment

- In terms of absolute numbers employed in the four Atlantic Gateway regions in 2002, the main sectors (60k+ people employed) were manufacturing industries (118k), wholesale and retail trade (91k), construction (70k), health and social work (62k) and agriculture, forestry and fishing (62k). By contrast the main sectors in the GDA were wholesale and retail trade (93k), real estate, renting and business activities (88k) and manufacturing industries (82k).
- In 2002 the four Atlantic Gateway regions have relatively similar employment structures (measured by the proportion of workers employed in each region in each of the 14 sectors into which they were categorised). Whilst there are differences between regions in the proportion of the total work force in each sector, these differences are relatively small.

9. Sources include CSO 2002 Census data, CSO Live Register

D.2 UNEMPLOYMENT

The Live Register is the record of registered unemployed people in Ireland and is used as the basis for determining unemployment levels

Some key findings are set out below.

- Registered unemployment dropped in the State from June 1996 to June 2005 by 44%, in the GDA by 52% (111.5k to 53.6k) and in the Atlantic Gateway regions by 41% (121.5k to 71.9k). In the rest of the State (Border and Midlands regions) it dropped by 32%.
- Within the Atlantic Gateway area, the drop over the June 1996 to June 2005 period was uneven with the greatest drops taking place in the South West and West (47% and 43%) and least in the South East and Mid West (34% and 35%).
- In all regions within the State three distinct patterns emerged in the period from mid-1996 to mid-2005, namely a reduction in the numbers on the live register from mid-1996 to mid-2001, an increase in numbers to mid 2003, and then a reduction in numbers up to mid-2005. The mid-2001 to mid-2003 period roughly coincides with a relative downturn in the national economy. The increase in numbers on the register in the 'middle period' (2001-03) was considerably more pronounced in the GDA than in the AG area (+42% vs +23%).
- Within the Atlantic Gateway area the increase in the 'middle period' was variable with the Mid West faring worst (+36%), followed by the South West and South East (+24% and +21%) with the West being least affected by the relative downturn in the national economy (+13%).

D.3 GROSS VALUE ADDED

Gross Value Added is a measure of the value of goods and services produced in a region. The GVA is arrived at by measuring the total value of goods and services produced less the value of the inputs received from outside a region that are used in the production/supply process within the region.

GVA at basic prices measures the value added as indicated above at prices that the producer receives minus any taxes payable, plus any subsidies received as a consequence of their production or sale.

It is important to note that GVA includes any profits that firms make. Company profits that accrue to non-residents can in some circumstances (eg foreign owned companies) be quite considerable. It is also relevant to note that the workforce who produces the goods and services may not live in the region where the actual production or sale occurs. This cross-region effect is probably most pronounced in the Dublin area where production/supply may occur in Dublin County but a significant proportion of the workforce live in surrounding Counties. In the analyses that have taken place in this study, the Dublin and Mid East regional data have been combined.

A final issue to note is that in the case of international firms the prices of inputs and the extents of profits in any particular country may be adjusted to promote overall firm profitability. Thus it could be that GVA may be 'artificially' inflated or deflated in the case of any one company in a particular country. It is not known if this practice has or is taking place in Ireland and if so whether it is occurring on a marginal or significant scale.

GVA is a useful measure for analytical purposes because it provides an accurate indication of the value of economic activity in an area through providing an indication of how much actual value is added to production/supply processes.

Overall

- There is only a modest difference in the GVAs at basic prices between the AG regions and the GDA in 2002 (€49.6b vs €52.2b). This indicates that the Atlantic Gateway and GDA economies are of approximately the same size.

- The Atlantic Gateway area regional economy as measured by GVA at basic prices has grown faster than the GDA economy in the period 1995 to 2002 (159% vs 137% increase). This faster growth has taken place on a base that is not substantially smaller than the GDA base.



Manufacturing, Building and Construction

- The GVA at basic prices in this branch in the Atlantic Gateway area is 47% higher than that of the GDA. (€25.6b vs €17.5b).
- An important component of overall GVA growth in the Atlantic Gateway area has been the manufacturing, building and construction 'branch'. This branch grew by 142% from 1997 to 2002 which compares very favourably with the 77% growth in this branch in the GDA in the same period.
- The growth in the manufacturing, building and construction branch has been very uneven across the four regions that comprise the Atlantic Gateway area. The South West grew by 187%, the South East by 145%, the West by 97% and the Mid West by only 66%. Not only has the growth been fastest in the South West and the South East but the combined size of the branches in these two regions in 2002 is over three times as large as the combined branches in the West and Mid West. In effect there has been fast growth on a relatively large base in the South West and South East. This would underline the strengths of the adjoining southern regions in developing the major elements of a counterbalance to Dublin, further enhanced by the developing linkages between the centres (Cork/Limerick, Cork/Waterford, Limerick /Galway and Limerick/Waterford, highlighting the potential of the Atlantic Gateways approach

Marketing and non Marketing Services

- In 2002 this branch as measured by GVA at basic prices was significantly smaller in the AG area than in the GDA (€22.4b vs €34.8b). In the Atlantic Gateway area it is however only marginally smaller than the manufacturing, building and construction branch. (€22.4b vs €25.6b)
- The branch grew in the Atlantic Gateway area by 99% from 1997 to 2002 which is marginally higher than the 94% growth in this branch in the GDA in the same period.

Agriculture, Forestry and Fishing

- This branch is relatively small in comparison with other branches. For example in 2002 the branch contributed 13 times less GVA in the Atlantic Gateway area compared with the manufacturing building and construction branch (€1.9b vs €25.7b).
- The branch has been in decline across all the Atlantic Gateway area regions during every year from 1997 to 2002 (€2.1b to €1.9b).
- Within the Atlantic Gateway area the decline has been highest in the Mid West (-13.3%), followed by the S West (-12.8%), the West (-11.1%) and the S East (-4.7%).

D.4 LABOUR PRODUCTIVITY

- The GVA per worker measured at basic prices in the Atlantic Gateway area in 2002 is only slightly below that of the GDA (-6.7%).
- There is substantial variation in the GVA per worker within the four regions comprising the AG area. The South West has the highest value added per worker (€89 500), followed by South East (€60 000), the Mid West (€54 500) and finally the West (€47 200). The figure for the South West is 89 % higher than the figure for the West, while the combined south west/south east is 47% higher than the combined mid west/west.

D.5 INCOMES

- Disposable incomes per person in the State increased by 186% between 1995 and 2002 (€8960 to €16 625). The increase in the Mid West matched the State increase while increases in the West (190%) and the S East (187%) were above. Only the S West experienced an increase that was less than that in the State (182%).

D.6 OVERVIEW

Strengths

- The Atlantic Gateway area employs 43% of the total number of people employed in Ireland. This proportion is slightly larger than the 42% employed in the GDA. The value of all goods and services produced in the Atlantic Gateway area is only marginally less than that of the GDA.
- The Atlantic Gateway area regional economy as measured by GVA at basic prices has grown faster than the GDA economy in the period 1995 to 2002 (159% vs 137% increase).
- The registered unemployment rose considerably less during the 2001 – 2003 relative slowdown in the Irish economy. This suggests a robustness which may enable the Atlantic Gateway area economy to weather quite well future downturns.
- There are four distinct major urban nodes in the Atlantic Gateway area into which economic activity is focused. This diversity provides a variety of bases from which growth can be stimulated.

Weaknesses

- The Atlantic Gateway area economy covers a large geographical area compared with the GDA. This spread has a number of important implications
 - There is considerably less internal economic integration between the different parts. This lack of internal integration makes development of critical mass more difficult
 - There is considerable potential for labour, capital and cash leakages out into the surrounding areas.

10. Total income minus current taxes minus social insurance contributions. Total income equals primary income plus social benefits plus other current transfers. Primary income equals income of self employed persons plus compensation for employees plus rent for dwellings (including implied rent of owner-occupied dwellings) plus net interest and dividends.

11. Measured in terms of Gross Value Added (GVA) which is a measure of the value of goods and services produced in a region. The GVA is arrived at by measuring the total value of goods and services produced less the value of the inputs received from outside a region that are used in the production/supply process within the region.

- From 1996 to 2005 the decline in the overall rate of unemployment¹² was less in the Atlantic Gateway area compared with the GDA .
- There is no single economic focus point in the Atlantic Gateway area where agglomeration economies can be achieved. The diversity which was mentioned as a strength may be seen as a weakness from the point of view of building critical mass
- The structure of the economies in the four regions comprising the Atlantic Gateway area are broadly similar¹³. A greater variance in the structures would indicate more opportunities for complementary economic development where weaker sectors in one gateway could become complemented by sectoral strengths in another gateway.
- There is considerable variability in terms of GVA between the four regions in the Atlantic Gateway area. Clearly within the Atlantic Gateway area development has not occurred evenly.

Opportunities

- The relatively large size of the economy in the Atlantic Gateway area suggests that there is considerable potential for building economies of scale, and hence critical mass, provided barriers to movement (goods and people) are minimized.
- The fact that GVA grew faster in the Atlantic Gateways area than in the GDA over the period 1995 to 2002 indicates a robust underlying economic base. This growth momentum if continued would provide numerous opportunities for enterprise development.

Threats

- The Atlantic Gateway area has seen strong growth in the manufacturing in the period from 1995 to 2002. Whilst such growth is to be welcomed, the manufacturing sector is particularly susceptible to being undercut by enterprises in countries with lower cost bases.
- The data presented earlier indicated very substantial variation in the efficiency in production of economic value (GVA per capita variations) between the four regions within the Atlantic Gateways area. Given the nature of capitalist economic growth¹⁴ it could well be that these differences become greater rather than smaller into the future. This unbalanced pattern of growth could become a source of instability into the future.

Sector	Employment, 2002	
	Greater Dublin Area	Atlantic Gateways
Agriculture/extractive industries	13713	64984
Manufacturing	82485	118681
Electricity, gas, water supply	4581	4907
Construction	52081	70115
Wholesale and retail trade	93472	91841
Hotels and restaurants	30096	39171
Transport/storage /communications	51213	34076
Banking/financial services	45797	18344
Real estate renting/business activities	88352	48813
Public administration/defence	43573	34494
Education	44240	48187
Health and social work	57148	62193
Other	31786	24245
Not stated	50620	36372
Total	689157	696423

Source: Census of population, 2002, Volume 5, Table 12 (Central Statistics Office)

12. Measured in terms of numbers on the Live Register

13. Measured in terms of proportion employed in 14 sectors

14. Investment tends to move towards areas where higher levels of value are added . However GVA per capita is only one measure of economic performance.

Gross value added per person, 1995-2002 (state = 100)		
Region	1995	2002
South West	105.4	131.3
Dublin/Mid East	120.9	115.9
South East	85.2	89.3
Mid West	93.3	82.6
Border	77.6	71.0
West	75.3	70.5
Midland	69.0	63.2
State	100.0	100.0

Source: County incomes and region GDP, 2002 (Central Statistics Office, 2005)

D.7 POTENTIAL IMPACT OF THE ATLANTIC GATEWAYS INITIATIVE

What is the potential national dividend from a more productive and competitive set of Atlantic Gateways?

The total gross value added (i.e. economic output) of the economies of the four regions surrounding the Atlantic Gateways was €42,000m in 2001. Growth rates for the future are, of course, relatively uncertain, but the general indications are that annual average growth rates of 3% per annum are probably the most likely future scenario, suggesting a 10-year projection of €57,000m. If, however, (and it is by no means certain) that the Atlantic Gateways could collectively lift their annual growth rates to 4% instead of 3%, the 10-year projection of annual output from the Atlantic Gateways combined would be €63,000m or €6 billion higher.

Obviously, data like this is very subjective with a high margin of error. However, it does illustrate the general principle that the Atlantic Gateways represents a substantial national scale economic mass, with significant potential national benefits.

Region	Gross Value Added, 2001 (€m)
West	7,918
Mid West	7,601
South West	17,398
South East	9,442
Atlantic Gateway regions	
	42,359

Source: CSO

Growth rate	Base year (€m)	Year 10 (€m)
@ 3% per annum	42,459	57,000
@ 4% per annum	42,359	63,000
Difference		6,000

APPENDIX E: INSTITUTIONAL ISSUES

ATLANTIC UNIVERSITY ALLIANCE

Background

The Atlantic University Alliance (AUA) was established with the aim of pooling the individual expertise and resources of the National University of Ireland – Galway (NUIG), University College Cork (UCC) and the University of Limerick (UL), and making them available to indigenous SMEs in the surrounding regions.

The alliance was founded in October 1997 as a vehicle to combine resources in areas where the AUA could compete with the East Coast Universities for funds available under the Programme for Research in Third Level Institutions, suggested by Enterprise Ireland. Other initiatives under the AUA included close collaboration between the three industry liaison offices which led to initiatives such as the Technology Transfer Initiative. The AUA was recently reviewed in a Forfas report¹⁵ which provided an overview on the outcome of the programme.

Structure and objectives

The AUA does not have a legal structure; it is simply an agreement between the three member universities of UCC, NUIG and UL which has been signed by their respective presidents. Each member university has the right for designated representatives to attend AUA meetings, such as the dean of research, the industrial liaison officer and senior academics. The meetings of the AUA council are held approximately 3-4 times annually with the chairmanship rotating between the member universities on an annual basis. The AUA also has an Academic Committee which examines proposals in relation to the provision of education programmes.

One of the most important objectives of the Atlantic University Alliance is to provide an academic counter-balance to the dominance of the east coast universities. The AUA perceived that dominance could become even more prominent with enhanced cross-border linkages arising from the peace process in a very powerful Dublin-Belfast corridor. Thus, the AUA member universities see their role as being a catalyst for the economic development of the western seaboard region. The AUA's focus on economic development meant that member universities could work together on an issue that did not involve head-to-head competition.

Work Programme

The main AUA activities are the Technology Transfer Initiative (TTI), the AUA Technology Management Masters programme and research collaboration.

Technology Transfer Initiative (TTI)

The TTI is an initiative to facilitate SMEs to access the resources and expertise of the three AUA member universities. The TTI, supported by Enterprise Ireland, was developed to cater for the needs of small indigenous companies which in the past had experienced difficulties in developing research collaboration with academics. The objective of the TTI is to provide a mechanism for companies to access the expertise and resources of the AUA member universities so as to improve their level of innovation. Major outcome of the TTI was over 80 projects in three years, represented by proposals for R&D collaborations and innovation partnerships between firms and universities, in addition to training courses and seminars. Over 400 firms were involved in different stages of the TTI

AUA Masters in Technology Management

The second output of the AUA has been the development of a new course, the Masters in Technology Management programme, with funding from Enterprise Ireland. The masters programme is the first education tri-university collaboration on an academic post-graduate programme in Ireland. The objective of this programme is to promote and support technology management within Irish industry. Almost 80 students are participating in the programme

Joint research collaboration

The experience with collaboration through the AUA has helped to inform the approach of the universities in joint research collaboration, particularly significant in helping them focus their applications for future funding through the Programme for Research in Third Level Institutions.

15. *Innovation Networks* (Forfas, Dublin, 2004)

Forfas Conclusions

The Forfas study concluded that the AUA, while being primarily an academia-academia network, has a substantial focus on industry-academia collaboration. The initiative has helped SMEs to link up, not only with academic research expertise in their own regions, but also in the other AUA member colleges. Thus, not only has there been a transfer of technology from the individual universities to small companies, but this technology transfer has also involved an inter-regional dimension. Academic experts from different AUA member colleges have collaborated on research projects initiated by SMEs.

Forfas also indicated other potential forms of collaboration in the future, such as open distance learning, research colloquia, technology transfer and shared laboratories.

Implications for the Atlantic Gateways

From the perspective of the Atlantic Gateways project, the AUA experience demonstrates some significant ideas. The AUA is an excellent example of building critical mass at a practical level, showing how individual centres can enlarge their impact through collaboration and networking. The experience of the AUA demonstrates how additional results can be achieved through use of critical mass, greater than if the institutions worked in isolation. In addition, the AUA illustrates some important techniques on stimulating critical mass: voluntary coalitions, specialisation and external funding.

- The AUA was a **voluntary coalition**, with no legal or statutory foundation. It represented a "light" administrative structure whose major resource was the enthusiasm of the partners. It imposed little or no administrative or organisational costs. Also, the absence of any formal organisational structure meant that issues of coordination or integration were managed in the normal course of operation of the programme. Significantly, during the Atlantic Gateways seminars, similar comments were made that Atlantic Gateways networking should be based on existing organisations, without the need for new structures. The AUA experience would thus confirm this view, showing how informal collaboration among existing bodies can yield substantial results.
- **Specialisation** was a feature of the AUA success, with the universities concentrating on specialised themes of shared interest, without becoming involved in major wide-ranging collaboration, and thus avoiding issues where historical competition between the institutions might impede co-operation. The decision to specialise in particular areas thus helped to ensure motivation and commitment from the partners, without weakening the competitive position which they may inevitably need to adopt in other aspects of their operations. This combination of cooperation and competition could well inform future action in the Atlantic Gateways, with potentially competing entities agreeing to cooperate in specific tasks of collective advantage.
- **External funding** was a critical resource for the AUA. Enterprise Ireland provided considerable financial support. This external funding generated the stimulus for the colleges to expand their networking activities to include joint action with the other AUA partners. Without such external funding, the colleges would not have made the resource allocation for collaboration from their own budgets. External funding thus served to lever internal resources and guide the colleges to a much greater degree of collaboration than they would have otherwise achieved. The implication for the Atlantic Gateways is that critical mass among separate centres will need the support of external funding and external policy if it is to become a reality.

ATLANTIC TECHNOLOGY CORRIDOR

The Atlantic Technology Corridor (ATC) is an informal alliance of the wider technology community comprising leading industry, educational and development agency partners operating along Ireland's western Atlantic seaboard, concentrated on the Limerick/Galway corridor. It is a coalition focused on the promotion, development and growth of a "boundaryless business gateway" that can, through collaborative actions, achieve scale and critical mass that will enable it to act as a counterpoint to the Dublin/eastern Area.

The ATC is industry-led by companies such as Dell, Nortel, Analog Devices, Boston Scientific, Avocent and others, established in 2003. The University of Limerick and NUI – Galway are also members. Shannon Development has provided administrative support and start-up funding.

The key objective of the ATC is to create a vibrant technology cluster as a critical component to drive the economy of the western corridor. Research by the ATC has shown that there is a concentration of 270 ICT and medical technology companies employing 22,000 people in the corridor catchment. The ATC group has undertaken significant surveys of issues affecting the western corridor. Two themes in particular were highlighted in these investigations:

- There are infrastructure deficits in the western corridor, according to the ATC. These include limitations to air access in addition to the need for road and rail improvements. Furthermore, growth constraints around telecoms have also been highlighted.
- Weakness in research and other linkages between industry and third-level institutions have also been highlighted by the ATC as a source of concern.

Through a programme of consultation and research, the ATC has identified a series of development objectives for the western corridor. These include business objectives to encourage firms to move up the value chain, research objectives to improve industry interaction with third-level education, development of business clusters, support local government, strengthen the integration of inward investment and promote the Limerick/Galway area as a single entity. Definitions of objectives such as these represent an important private sector perspective, adding value to public sector programmes.

Within this framework of goals, the ATC articulated four key themes or pillars where industry leadership and collaborative interventions can help build a world class technology cluster:

Innovation and enterprise

ATC proposals have been prepared for a "Digital Enterprise Research Institute". This would aim to integrate the expertise of firms with university research on information technology and business applications. This could build on existing research in computer science and engineering, facilitate commercial spin-offs from the universities and complement socio-economic research on industry and innovation in the area.

Other proposals have been suggested to support start-ups through a coherent regional programme of technology incubators, training and education together with commercialisation of research ideas, particularly in areas of ICT and medical technology where local SMEs can offer competitive advantage.

Infrastructure

The ATC completed a review of the business requirements for infrastructure in the western corridor, with several key recommendations, including improvement of services and facilities at Shannon Airport, road and rail infrastructure, as well as the role of broadband infrastructure to establish the Western corridor in competitiveness and capacity for telecommunications.



Research and skills

ATC recommend a research and skills programme to build on the ICT and medical technologies in the area. Specifically, the ATC recommend the establishment of a virtual centre of excellence for research and learning in information, communications and medical technology. Established jointly by UL and NUIG, this could build on the achievements of the Technology Transfer Initiative but with a "virtual" rather than a physical presence, creating synergy through linking ongoing activities in the universities.

Networks and clusters

The ATC organised several programmes and activities to promote networks and clusters among the business community in the western corridor. This included seminars and meeting with CEOs in the area, encouraging informal linkages between companies and promoting information to companies about the value for networking for competitiveness.

Lessons for the Atlantic Gateways

The ATC provides some significant ideas for further development of the Atlantic gateways concept. The ATC highlights the positive role the private sector can bring to development initiatives. The private sector partners brought knowledge of business conditions and market issues, together with technology aspects, to the development process. They were successful in identifying key strategies from a business-led perspective, and in focusing development policies on core themes of international competitiveness. The ATC is a useful case study, highlighting the role of collaboration and networking, within a public/private framework, and showing how this approach can strengthen added value and economic output.

The ATC has, in a relatively short space of time, succeeded in developing key business strategies for the corridor. Follow-on implementation of these strategies will be determined by the extent of external public funding which can be made available. The ATC received some funding at start-up, but its main resources have been private sector. At the time of writing, discussions were under way with the relevant bodies on the scope and extent of future funding.

More recently, the experience of the ATC has encouraged the development of related initiatives, such as the 'Atlantic Way'

WESTERN TOURISM ALLIANCE

The western seaboard comprises several tourism regions. While these areas do not necessarily coincide with the catchments of the Atlantic Gateways, they have been the subject of a recent collaborative programme, providing another useful case study to inform future policy.

The crisis of following the events of 9/11 brought fresh pressures on Irish tourism, with severe cutbacks in air services and a decline in international tourism. Under the stimulus of these difficulties, a group of regions (Shannon Region, Ireland West and Ireland North West) began to come together to establish a marketing alliance to promote the tourism product of the western seaboard of Ireland overseas. The significance was that this group, including diverse areas such as Sligo, Donegal, Galway and Limerick, had not previously engaged in active cooperation. The new collaboration involved a series of overseas tourism marketing activities to promote the area of the 'western region' in its entirety, including advertising, public relations, sales initiatives, trade, consumer and media promotions. Promotion of tourism on the direct air routes to the 'western region' are a special priority.

The group is an informal forum and has focused on several lines of action:

- Production and distribution of a unified set of brochures on compelling reasons to visit the 'western region', including brochures on flying direct to the 'western region';
- Development of web-sites to promote the 'western region' through a shared portal site;

- A collective advertising campaign in the UK to promote the 'western region', focusing on areas in the UK from where direct flights originate;
- Electronic marketing initiatives in collaboration;
- A co-operative approach to overseas trade and consumer shows.

In 2005, the marketing budget of the 'western region' initiative was €1million. This was additional spend over and above the cost of normal marketing activities of the individual members. The western region's funding partners contributed €500,000 and these partners were: The North West Regional Tourism Authority, the Ireland West Regional Tourism Authority, Shannon Development, Shannon Airport, Knock Airport, Galway Airport and Derry Airport. The €500,000 budget leveraged a matching €500,000 from Tourism Ireland.

The example of the 'western region' group shows how branding and marketing can benefit from a collective approach, and that such an approach can be stimulated by strong regional collaboration within the framework of a supportive national policy. The experience also illustrates how tourism is a strategic sector in the context of the Atlantic Gateways. Tourism offers high levels of sustainability. Also, the individual gateways, and the corridors between them, have considerable advantages for tourism.

APPENDIX F: REGIONAL PLANNING GUIDELINES

South West

In the South West, the Regional Planning Guidelines enforce the recommendations of the Cork Area Strategic Plan (CASP), providing a vision and strategy for the development of the Cork City sub-region up to 2020. CASP sets out a broad-brush rail and public transport strategy that provides guidance as to the general direction and scale of growth. Specifically, CASP develops a framework that will enable the Cork city sub-region to attain critical mass, integrate land-uses and transport, make efficient use of investment in infrastructure and provide a high quality environment.

CASP aims to regenerate Cork City, with improving educational, health and cultural facilities, with particular focus on the docklands area for revitalisation. The goal is to develop Metropolitan Cork as an integrated unit, characterised by a single jobs and property market, linked together with a high quality rail and bus system and the social and cultural facilities of a major European city. Growth is based on rounding off the south and west of the city and developing the potential of the northern and eastern sides, by maximising the use of the existing rail corridor as a catalyst for the development of a fully integrated transport system.

This integrated transport system is central to the CASP. It includes new suburban rail services to Mallow and Midleton/Cobh, transport interchanges, new rail station, green routes for bus, cycle, walking, park and ride facilities, encouraging a modal shift to public transport, as well as developments of Cork International Airport and the Port of Cork.

South East

The South East Regional Planning Guidelines highlight how communications links between Waterford City and other gateways, including rail, road and telecommunications are seen as central to the overall objective of achieving balanced regional development.

The level of development in the South East that is being driven by Dublin and the effects on both the South East towns and the Greater Dublin Area must be addressed. The Waterford-Dublin economic corridor has a significant role in developing linkages not only between the Greater Dublin Area and the South East, but also between the Mid East Region and the South East. Also, development within the Rosslare-Dublin corridor has significant potential for generating economic activity in the South East Region.

The Waterford Planning, Land Use and Transportation study (PLUTS) makes detailed recommendations for a population increase over double the present population by 2020. The Waterford PLUTS identifies the measures necessary for housing and other developments, both north and south of the river Suir. The PLUTS and RPGs also recommend the development of a University of the South East as a key regional priority. A key element of the PLUTS is the achievement of critical mass to allow Waterford to reinforce and develop its role as the economic driver of the South East. Achievement of the PLUTS recommendation will be based on a partnership between Waterford City Council, Waterford County Council, Kilkenny County Council and other bodies.

Mid West

The Mid West regional planning guidelines emphasise that Limerick/Ennis/Shannon would be developed in a coordinated way as a single integrated urban agglomeration that acts as the core driver of the region and a principal mechanism for attracting investment into the area. The city core of this area would develop as a vibrant, multi-purpose zone with a population of a size capable of supporting a high level of social and commercial activity, with intensive linkages to Shannon and Ennis.

Major development programmes include "Limerick Riverside City", a project aiming to establish a new development focus along the riverside of Limerick City, embracing the docklands, quayside, city centre, park canal and University. A combination of regeneration and greenfield developments will flow, developing Limerick as a European regional city. The Ennis Information Age Park will include development of a new business park built on advanced infrastructure and information services, including office facilities, roads, associated technologies and back-up supports.

The role of Shannon International Airport, including its linkage to the associated industrial zone, as a key catalyst for the region is emphasised in the regional planning guidelines: the airport has the potential to serve a large hinterland and to be a linchpin in the whole transport network of the West.

West

The West regional planning guidelines highlight how future population growth in the Galway City area will demand residential, commercial and industrial development together with extra support services such as education, health care, childcare, recreational and cultural facilities. Galway City aims are to enhance its regional gateway functions and develop as a dynamic social, economic and cultural entity. A key element will be to achieve critical mass to allow the city to reinforce and develop its role as the economic driver of the West Region. This role of Galway as an urban focus for the West Region is especially significant. The economy of the West is rural in nature. There is a high dependency level due to the large number of small farm holdings, resulting in pressure for farm diversification and alternative means of earning income outside agriculture. Galway City has thus a critical role to play in the context of the balanced development aims of the National Spatial Strategy.

The Galway Transportation and Planning Study makes detailed recommendations for an integrated transportation and planning framework up to 2016. Several measures are being taken to implement the Galway Transportation and Planning Study: local action area plans to provide for anticipated population growth; production of a realistic bus network plan for the city and its hinterland taking account of the necessary bus priority and demand restraint measures; examinations of local commuter rail opportunities; investments for cycling and walking; park and ride; completion of an outer city by-pass.



APPENDIX G: INFRASTRUCTURE

Road Transport

Government policy for improvement of national roads, as outlined in Transport 21,, provides for the development of five major inter-urban routes: Dublin/Border, Dublin/Galway, Dublin/Cork, Dublin/Limerick and Dublin/Waterford. The aim is to upgrade these to motorway or high quality dual carriageway standard. Improvement programmes for many other national primary routes are also a priority, particularly the development of the Atlantic Corridor from Letterkenny to Waterford.

Progress is well under way to completing the main national primaries from Dublin to the Atlantic Gateways:

- Access to both Limerick and Cork will be supported by construction in 2005 of Naas road improvements (15km); also 40km of motorway near Portlaoise have progressed through the statutory approval process.
- On the Dublin/Cork road (N8), the Fermoy by-pass and Mitchelstown inner relief road is under construction and a further 99km motorway are at planning stage. In Cork itself, the southern ring road interchanges have been approved; Cork northern ring road (15km) and Cork/Ringaskiddy N28 (12km) are at planning stage
- The N22 between Cork and Limerick is being improved
- Upgrading of sections and junction improvements on the N25 Cork-Waterford
- Parts of the Limerick/Dublin N7 road have completed statutory approval (Limerick/Nenagh) with 34km at planning stage elsewhere on this route. In Limerick itself, the fourth river crossing, i.e. southern ring road (10km), has been approved.
- Substantial motorway construction is being undertaken on the Dublin/Galway route (N4, N6) of 72 km at Kinnegad, Kilbeggan and Loughrea. An additional 92km of motorway are planned.
- Waterford will benefit from strengthened access by the new by-pass (37km). A new dual carriageway is approved and planned on the N9 from Kilcullen to Waterford. The New Ross by-pass (15km) is planned.

Most significantly, there are active projects under way, through Transport 21, to strengthen connectivity *between* the Atlantic Gateways, thus helping to develop combined critical mass of the four centres:

- Between Limerick and Galway (N18), the Ennis-by-pass of 21km is under construction and an improved dual carriageway of 49km is planned from Ennis to Oranmore.
- Substantial plans are in place to upgrade the N20 between Limerick and Cork to improved dual carriageway with 41km from Mallow to Croom.
- Upgrading to junctions and sections of the N25 Cork Waterford
- Considerable parts of the Limerick/Waterford route (N24) are being upgraded to standard two-lane carriageway (74km between Tipperary, Cahir, Clonmel and Carrick-on-Suir).

Rail

The Strategic Rail Review prepared by Booz Allen Hamilton with Ernst & Young (Government Publications, 2002) found that the national railway system had inherited a legacy of significant operational limitations and constraints. While investment in the recent past had delivered many benefits, it was not sufficient to make up the gap arising from both historical investment backlog and design limitations. Historical under-investment has meant that the railway's ability to respond to need and to deliver quality services has been severely limited.

Some parts of the network are served at extremely low levels in terms of passenger volumes. This results in levels of services that are both unattractive to potential users and inefficient to operate. Significantly, the Review highlighted the non-radial routes, such as those linking the Atlantic Gateways, as particularly weak in this regard.

The Review recommended that the focus of the railway into the future should be as a predominantly passenger railway with several features: an effective mass urban transit operation in Dublin; regular quality commuter services between Dublin and adjacent towns; and a good mix of quality intercity radial and ‘fit for purpose’ non-radial routes.

The Review recognised, however, that there is a need for a flexible approach, particularly regarding the National Spatial Strategy and balanced regional development. The Review noted that Ireland’s best prospects of achieving critical mass, of the type and scale capable of competing with the Greater Dublin Area, lies in developing Cork, Galway, Limerick and Waterford as an interconnected network of cities.

The Review examined and evaluated several new schemes whose development would support the National Spatial Strategy goals. However, with the exception of the Cork suburban rail project schemes such as Galway/Cork (via Limerick) and Limerick/Ennis/Shannon were found to perform poorly when projected patronage was factored in, due to current levels of development and population density along the lines in question.

The Review reported that the main challenge in advancing these schemes exist at the regional and local level. This would mean putting in place, along these lines, the development plans and establishing the density of population that support existing rail services. The Review confirmed that these types of schemes could be implemented, but that this would be contingent on plans for compact and sustainable settlement forms along the rail corridors. It would also require real progress on the ground in building up population levels and population densities along the rail corridors. This should be in a manner consistent with proper planning and sustainable development, reinforcing the existing urban structure.

Significantly, the Review confirmed that Cork did meet these requirements and included the Cork suburban scheme in the recommended rail investment strategy.

Transport 21 plans to re-open the Western Rail Corridor on a phased basis, including a re-instatement of the Ennis/Claremorris line and a new commuter rail service between Athenry and Galway. Suburban rail services in Cork will be upgraded in support of the Cork Area Strategic Plan: re-opening the Middleton line and providing three new stations on the Mallow-Cork City – Cobh line at Blarney, Dunkettle and Kilbarry. A feasibility study will be completed into the Shannon rail link to Limerick and Galway.

Broadband

The Government’s National Broadband Strategy aims to develop the broadband infrastructure and services to support the transition of the Irish economy from one based in the past on the production and distribution of physical goods to one based on the production and application of knowledge. Broadband infrastructure is now regarded as the single most important economic infrastructure for the economic development of Ireland. The government have thus invested heavily in the roll-out of broadband infrastructure to support the delivery of advanced telecommunications.

A key initiative in this area has been the Metropolitan Area Networks (MANs) intervention announced in March 2002. This initiative involves the construction of high-speed fibre-optic rings linking the key business districts in main towns and cities across the country within a partnership with local and regional government organisations, including the gateways. These Metropolitan Area Networks will provide high-speed broadband infrastructure to businesses, schools, hospitals and private consumers on an open-access basis. More than €64 million was committed to the 1st phase of this programme for the period 2003-2004. This phase has now been completed with the following outcome in the Atlantic Gateways:

Gateway	Total length of new works
Cork	54km
Galway	56km
Limerick	43km
South East region (Waterford and other centres)	98km

Elsewhere, the County and Group Broadband schemes promote broadband roll-out to smaller communities.

Enterprise

Recently, the Enterprise Strategy Group¹⁶ (ESG) has also commented on issues of regional development.

The ESG noted that, while the economic advances of the past decade have had nationwide impact, job creation and new business activity have not been geographically balanced; the Greater Dublin Area has benefited disproportionately from the growth. The concentration of economic activity has been driven by factors such as the size and strength of the existing enterprise base, growing levels of accessibility (for example international transport and telecommunications links), availability of a large skilled workforce and a well-developed social infrastructure that promotes business networks. Research and educational facilities also play an important role in promoting and sustaining growth.

By contrast, the ESG argue that weak infrastructure in the regions presents a barrier to their economic development. The key mechanism for enabling regional development is to enhance their infrastructure. Regions will attract enterprise only if they have the infrastructure and facilities that allow them to compete with Dublin and international regions for trade and investment.

The ESG notes that the NSS sets out a 20-year plan for greater regional balance, identifying a number of gateways and hubs around the country into which it is intended to channel growth in the years ahead. The report states that if the gateways and hubs identified in the NSS are to provide business with a viable alternative to Dublin and to compete with leading regions overseas, it is essential that they have the necessary infrastructure. The physical infrastructure and services must be able to support a critical mass of population and enterprise.

The ESG recommends that investment of infrastructure should be ahead of demand in key locations. Investment, the report argues, should be prioritised in NSS-designated gateways and hubs to enable them to achieve their regional potential.



16. Enterprise Strategy Group (2004), *Ahead of the Curve: Ireland's Place in the Global Economy*, published by Forfás.

APPENDIX H: STUDY REPORT PARTICIPANTS

Steering Group

Chairman	David Walsh <i>Department of Environment, Heritage and Local Government</i>
Project Manager	Brian Callanan <i>Shannon Development</i>
Members	Stephen Blair <i>Southern & Eastern Regional Assembly</i>
	John Bowen <i>The Bowen Group</i>
	Tom Byrne <i>South East Regional Authority</i>
	Niall Cussen <i>Department of Environment, Heritage & Local Government</i>
	Oliver Daniels <i>Atlantic Technology Corridor</i>
	Tom Kirby <i>Mid West Regional Authority</i>
	Olivia Loughnane <i>Shannon Development</i>
	Finian Matthews <i>Department of Environment, Heritage and Local Government</i>
	John McAleer <i>South West Regional Authority</i>
	Jim McGovern <i>West Regional Authority</i>
	Paul Nolan <i>Dawn Meats Ltd (with Deirdre Gough, IBEC Waterford)</i>

Inputs were received from Prof Gerry Boyle (NUI Maynooth), Prof Simin Davoudi (Leeds Metropolitan University), Andrea Deverell (University of Limerick), Majella Giblin (NUI Galway), Ciaran Lynch (Tipperary Institute), Christabel Myers (Office of the Deputy Prime Minister, UK), Prof Jim Walsh (NUI Maynooth) and Bruce McCormack (Department of Environment, Heritage and Local Government). Technical support was provided by FGS Consulting.

Finian Matthews was Chairman of the Steering Group up to June 2006.

Participants at Atlantic Gateway seminars

PARTICIPANT

Fergal Barry
John Bradley
Séamus Bree
Joe Buckley
Mary Buckley
Dan Buggy
Martina Burke
Brian Byrne
Michael Callaly
Miriam Collins
Liam Conneally
Michael Connelly
Kieran Counihan
Michael Cuddy
Pat Daly
Simin Davoudi
Garrett Dee
Michael Delaney
Niall Dennehy
Andrea Deverell
Miriam Donoghue
John Farrell
Joe Fitzgerald
Alec Fleming
Daniel Fleming
John Fleming
Miriam Flynn
Mary Forde Kelly
Deirdre Gough
Majella Giblin
Ivan Grimes
Conor Healy
Denis Healy
Donnchadh Hughes
James Joyce
Ray Kearney
Aiobhean Lindsay
Jim Long
Valerie Loughnane
Ciaran Lynch
Conall MacAongusa
Des McCafferty
Tressan McCambridge
Dearbhail McCarthy
Pádraig McCormaic
Liam McElligott
Paul McElhinney
Claire McEnery
Paddy McGuinness
Rita McInerney
Triona McInerney
Colin McLean
Michael Malone
Tom Mannion

ORGANISATION

Limerick Institute of Technology
Limerick City Council
Enterprise Ireland
Shannon Airport
IDA
Cork City Council
FAS
Shannon Foynes Port Compay
Enterprise Ireland
University College Cork
Clare County Council
Galway County Council
University College Cork
NUI Galway
Shannon Development
Leeds Metropolitan University
Enterprise Ireland
Cork Institute of Technology
South Tipperary County Council
University of Limerick
Limerick City Council
IBEC
Bus Eireann
Clare County Council
South West Regional Authority
National Roads Authority
Bus Eireann
Cork Airport
IBEC
NUI Galway
Southern & Eastern Regional Assembly
IDA
Port of Cork Company
IBEC
Galway County Council
Bus Eireann
Clare County Council
Limerick City Council
West Regional Authority
Tipperary Institute
Cork Chamber of Commerce
Mary Immaculate College
Forfas
IBEC
Clare County Council
Shannon Development
Southern and Eastern Regional Assembly
Shannon Airport
Bus Eireann
Ennis Chamber of Commerce
Shannon Chamber of Commerce
Limerick Institute of Technology
Kilkenny County Council
Galway County Council

Thomas Meehan
Denis Moran
Martin Moroney
Michael Mullins
Eamonn Murphy
Kevin Murphy
Paul Murphy
Conn Murray
Seamus Murray
Seán Mulrooney
Fiona Neary
Barry O'Connor
Joe O'Connor
Frank O'Donoghue
Martin O'Loughlin
Robin O'Sullivan
Joe O'Neill
John O'Neill
Joe Palmer
Lar Power
Shay Power
Venie Martin
Tim O'Brien
Michael O'Shea
Brian Quinlan
Bill Rafter
Siobhan Rafter
Monica Roche
Eamon Ryan
Tom Sheehan
Andrew Stokes
Paul Sutton
Grace Tallon
Sheevaun Thompson
James Tobin
Denis Tierney
Mary Twomey
Graham Webb

New Ross Port Company
Waterford Institute of Technology
Shannon Airport
Galway County Council
University of Limerick
South West Regional Assembly
Cork County Council
Waterford City Council
Southern & Eastern Regional Assembly
Mid West Regional Authority
NUI Galway
University College Cork
Cork County Council
Waterford Chamber of Commerce
Clare County Council
Cork Chamber of Commerce
Galway City Council
Cork County Council
South East Tourism
Waterford City Council
IDA
Waterford Institute of Technology
Irish Times
South West Regional Authority
Enterprise Ireland
Waterford City Enterprise Board
Waterford Chamber of Commerce
Forfas
Limerick Chamber of Commerce
Iarnrod Eireann
Forfas
Cork City Council
Bus Eireann
South East Regional Authority
South East Regional Authority
University of Limerick
Forfas
Clare County Council





PRINTED ON
100% RECYCLED PAPER

