



A paper on indices

Appendix I:

Preparation of the NSS and Response to Public Consultation

From the outset, the approach taken to the *process* of preparing the NSS has been aimed at building ownership and wide consensus around the *product* i.e. the NSS itself. In particular, there has been an emphasis on

- promoting a high level of public awareness and consensus on the NSS and on the new directions it is setting
- building support for mutually beneficial policies between relevant government departments, agencies etc.
- basing the measures proposed on a strong analytic base.

In response to this, the defining features in the process of preparing the NSS have been

- **consultative**, across a wide spectrum involving the social partners, local and regional authorities and many different interest groups both North and South
- **cross-departmental**, through a Steering Group representative of the relevant government departments
- **analytical**, in terms of extensive new spatial analysis at national level into why Ireland is developing in the way it is, drawing also on a range of national and international research and expertise in this area.

The outcome of this approach is a high level of awareness and understanding of the strategic choices that need to be made. This awareness has been strengthened through

- an initial consultation phase on what the NSS should address
- presentations of key research findings and discussion of strategic issues at national and regional events, to which a wide range of representative interests were invited
- interactions with government departments, agencies, and key social and economic interests.

The consultation process culminated in the publication in September 2001 of the NSS Public Consultation Paper, *Indications for the Way Ahead*. In that document the broad elements of a suggested NSS framework were set out. A wide range of submissions were received from social partners, local and regional authorities, infrastructure providers, public and private, various interest groups and the general public. Below is a summary analysis of the responses received and a list of the organisations and individuals who made responses.

In overall terms, while many different issues were raised, most responses supported the broad elements of the emerging NSS framework. Many of the detailed suggestions offered have been incorporated in this Strategy.

Two hundred and fifty-nine submissions were received in response to the Public Consultation paper 'Indications for the Way Ahead'. The list of organisations and individuals who made submissions in response to the consultation paper is at the end of this Appendix.

Within the consultation document four specific questions were put forward i.e

Question 1

Do the guiding vision and principles set out in section 1 of the consultation paper represent a basis for balanced spatial development to which you can subscribe?

Question 2

Does viewing Ireland in terms of Functional Areas, as set out in this consultation paper, each of which has different characteristics and within each of which different issues arise, provide a useful explanation for the basis on which the country functions spatially?

As a consequence, is it a valid proposition that different kinds of responses will be needed in different areas to achieve more balanced regional development?

Question 3

Will the development of Functional Areas be best served by a spatial planning approach that seeks to energise them by focusing on the strengths of a limited number of places in a way which, at the same time, allows all parts of Functional Areas to realise their potential?

Question 4

Is the range of indications for finalising the form and detail of the National Spatial Strategy appropriate and comprehensive?

While a significant number of submissions structured their responses in line with these questions, others commented on different aspects. It has been possible to evaluate, through the direct and indirect responses to these questions, the level of support for the suggested approaches and guiding principles set out for the preparation of the NSS. The variations in the responses to these questions have been set out on the attached table.

Table 1

Question No	Q1	Q2	Q2a	Q3	Q4
% of submissions responding to this question	55.15%	56.42%	32.35%	48.74%	33.62%
Of which the following % answered:-					
Yes	50.00%	25.20%	60.00%	38.02%	25.70%
Yes with comment / Reservation	39.00%	45.82%	32.00%	44.28%	53.82%
No	11.00%	28.98%	8.00%	17.70%	20.48%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

A number of main themes emerged in the submissions, which are presented here, together with the main concerns raised. The percentage of submissions commenting on each of the themes is set out below

Table 2

Issues / Topics	% Commenting
Gateways, Critical Mass and Potential Implementation	62.04
Functional Areas	58.15
Balanced Regional Development	45.72
Rural Areas	43.94
The Role of Dublin	42.65
Regional or Local issues	42.24
Quality of life	26.71
Cross Border issues	25.03
Identified Key Infrastructure	14.19
Various other single issues	11.16
	41.83

The main themes and concerns raised in the submission were as follows.

Balanced Regional Development

Most submissions displayed a considerable degree of consensus on the broad thrust of the approach set out in the final public consultation paper, as the best means of achieving balanced regional development. The polycentric model referred to in the consultation paper as being appropriate in certain areas was broadly welcomed. The following are some of the main concerns expressed.

- Each region has its own uniqueness and this should be recognised.
- One of the objectives of the NSS should be to shift current gravitational forces in Ireland westwards.
- Decentralisation as a mechanism for promoting development was relevant to the NSS.
- The NSS must recognise that spatial balance is also required internally within regions.
- Peripheral areas may lose out and a targeted approach should be adopted towards them.
- The focus should be on building sustainable communities not just bringing the jobs closer to where people live.

Gateways, Critical Mass and Potential

It was emphasised that the basis for selecting gateways needs to be transparent. It was agreed that different locations must become attractive with the right ingredients linked to critical mass and potential. There was broad agreement that to create critical mass to counterbalance Dublin, it is vital that the linkages between Galway, Limerick, Cork and Waterford be improved.

The following are some of the main concerns expressed.

- Care must be taken not to disturb the existing potential within regions.
- Speed in achieving critical mass is crucial.
- If centres too close to Cork/ Dublin are selected as gateways/hubs, they will simply become commuter towns.
- Gateway towns may receive benefits to the detriment of other towns/ rural areas.

Functional Areas

There was some support, but also some reservations on the usefulness of 'functional areas' as set out in the consultation paper. Some submissions emphasised that the functional areas need to be seen as a starting point for planning purposes and not an end result in themselves in terms of areas with new administrative boundaries etc. It was suggested that planning for the functional areas should be operationalised through existing structures/institutions at local/regional level, if they are to be an effective tool in assisting the delivery of balanced regional development. Particular difficulties with the functional area concept were raised in some parts of the Midlands and South East.

The following are some of the main concerns expressed.

- Focussing on strengths in a limited number of places on a functional area basis may prevent other places from reaching their potential.
- Some people do not identify with functional areas.
- Functional areas as set out in the consultation paper do not in all cases relate to existing spatial linkages.
- Local and natural resources are not highlighted in the functional areas approach.
- Cross-border interaction in terms of functional areas does not receive enough emphasis.

Rural Areas

Suggestions were made on the need to refer to generic models for rural development as part of the NSS. It was emphasised that the development of national secondary routes may be critical for development of small to medium sized towns. Many submissions emphasised that the future of agriculture and issues of rural depopulation need to be addressed.

The following were some of the main concerns raised on this topic.

- All people living in rural areas were being associated with agriculture.
- The needs of rural dwellers who are not involved in agriculture need to be addressed.
- More people would be able to live in rural areas if the water and sewerage deficiencies were addressed.
- The 'real' cost of one-off urban generated housing in rural areas includes a) consequential difficulties which can arise in establishing routes or finding locations for new infrastructure needed to support development potential, and b) its implications for the protection of the countryside.
- Rural housing was seen as the main threat to the success of the NSS and the most important spatial issue facing the Government.
- Gateway development must not be at the expense of rural areas. There must be simultaneous investment in the Gateways and the rural areas.
- The NSS should not be urban focused. Rural environment/traditional settlement patterns must be preserved to maintain the tourism value of the country.
- There must be a strategic expansion of rural villages and towns; people should be encouraged to live in rural areas.
- Quality of life in rural areas should be maintained and promoted.
- Rural enterprise must be encouraged.
- Rural areas around Dublin must be protected.
- Additional research should be carried out to examine the rural areas/small towns/gateways relationship.

Quality of Life

A number of submissions suggested the need for greater emphasis on 'Quality of life' issues.

The following were some of the main concerns.

- NSS seems to be encouraging urban living where quality of life is seen by some as lower than in rural areas.
- More emphasis is required on the benefits and quality of life available in rural areas.
- Social, cultural, recreational and community issues should receive more attention in the NSS.
- There seems to be a belief that economic growth and competitiveness are fundamental to all our personal and environmental goals.
- Congestion, commuting, environmental depletion etc., threaten quality of life in many parts of the country.
- The NSS should focus on social and cultural goals as much as on economic goals and create sustainable communities.
- Issues of social inclusion and poverty need to be taken into account in the NSS.

Implementation

There was agreement on the need for a body to be responsible for managing the implementation the NSS. Co-ordination/integration at inter-ministerial level was seen as necessary. Delivery of the level of infrastructure necessary to make it work was considered essential.

The following were some of the main concerns.

- There is a need for prudent advanced provision of not only hard infrastructure, but also community and social facilities.
- Plan preparation must be co-ordinated — NSS, regional, local. There is a need to place the NSS in a hierarchy of plans.
- It is now time for making hard decisions.
- More information is required on timeframe, targets etc. Specific mechanisms for implementation must be set out.
- All regions should be co-ordinated by a supervisory body to ensure that they are working together as well as competing.
- Implementation must be mandatory. The NSS must have full statutory support.
- Implementation must be robustly monitored. The NSS should be reviewed regularly.
- Regional authorities are best placed to carry out the implementation of the NSS.
- The NSS must identify spatial objectives for population resettlement, select policy instruments, and allocate investment.

The Role of Dublin

The national importance of Dublin was recognised but it was accepted that there is also a need for a counterbalance to Dublin.

The following were some of the main concerns.

- Dublin will grow but its footprint should be curtailed e.g. the Midlands should not become a dormitory for Dublin based workers.
- Expansion of Dublin has led to loss of quality of life for many residents.
- Dublin must remain competitive, in the interest of national competitiveness.
- Outer (mid-east) counties should not be subsumed into a greater Dublin urban sprawl.
- There will be a need for different strategies related to the Dublin and Mid East regions.
- There is a need to divert traffic out of Dublin Port to other ports on the east and south east coasts.
- The growth of Dublin should be limited until its infrastructure can cope.
- The IDA should as a priority redirect investment from Dublin.
- Not all parts of Dublin area share the benefits of Dublin's international linkages.
- Dublin competes as a European city, not just as an Irish one and should be given special attention in light of this.
- The Strategic Planning Guidelines need to be complied with, to facilitate infrastructural improvements in the Greater Dublin area.
- Some areas in Dublin are still experiencing severe deprivation.

Key Infrastructure

There was general agreement that appropriate infrastructure may need to be provided ahead of actual need, in order to change existing imbalances.

The following were some of the main points raised on this topic.

- The Dublin-Belfast corridor is central to economic growth.
- The development of the Western Corridor should be prioritised.
- Knock Airport should be developed as an industrial hub for East Mayo.
- There is a need for one hour or less access to airports from gateways/hubs.

- Rail access to Shannon Airport is required.
- A capital infrastructure programme must be put in place to combat the peripherality of the BMW region.
- A marine/ waterways resource policy is needed.
- Access roads are crucial to balanced regional development.
- The regional airports should be protected – they are key resources in facilitating balanced regional development. Shannon Airport is considered essential for balanced regional development in the Mid West and West. Regional airports should be more fully utilised.
- Development of the Shannon Estuary is important for West and Mid West areas.
- A Derry-Sligo-Galway-Limerick-Cork-Rosslare rail link (Western Strategic Rail Link) would greatly benefit the country.
- Upgrades are needed in electricity, water and broadband telecommunications infrastructure. Wind power in the West should be harnessed to greater effect.

Other Regional / Local issues

The following were some of the issues raised in submissions.

- Good linkage is needed between towns if the polycentric model is to work.
- Investment in north-south linkages in the Midlands and also in national secondary routes is crucial.
- Provision of education at degree and higher levels is an issue and also a barrier to inward investment.
- Waterford City should be recognised as the capital of the South East Region, having regard to its designation as a gateway.
- Shannon Airport and its status within the national context is significantly important not only for Mid West region but also the whole western seaboard.
- In some cases no shared vision for the development of cities exists at present between the relevant city councils and county councils.
- Gaeltacht areas and the islands need special consideration.

Submissions Received in Response to Indications for the Way Ahead October-November 2001

A

Allen, Bernard TD
An Bord Pleanála
An Taisce
An Taisce – Galway Association
Arigna LEADER Group
Athlone Chamber of Commerce
Athlone Urban District Council

B

Ballina Chamber of Commerce
Ballinamore Area Community Council Ltd.
Biddlecombe, Bob, Dublin 7
BMW Regional Assembly
Bohan, Cormac, Drogheda
Border Regional Authority
Bowen Walsh, Peter, Co. Sligo
Brogan, MIPI, Jim, Planning & Development Consultant
for Forabby Ltd
Bryan, Maurice, Rathfarnham

C

Carlow Chamber of Commerce
Carlow County Council
Carlow County Development Board
Carlow IT
Carr, Cllr. T., Mayor of Wexford
Castlebar UDC
Caulfield, James, Barntown, Co. Wexford
Cavan County Council
Charleville Chamber of Commerce
Clare County Council
Clare County Development Board
Claremorris & District IRD Co. Ltd.
Comhairle (Citizen Information Centres)
Comhar Iorrais Teoranta, Belmullet
Comhdháil Oileain na hÉireann
Community Workers Co-op
Conaty, Patrick J, Cavan UDC
Connacht Gold Co-op
Construction Industry Federation
Construction Industry Federation, Carlow/Kilkenny branch
Coogan, Caryn, Co. Wexford
Corby, William, Tipperary
CORI
Cork City Development Board
Cork Corporation
Cork County Council
Cork County Development Board
Council for the West
Council of Directors of Institutes of Technology
County Carlow Chamber of Commerce
Cuffe, GK, Ballysadare, Co. Sligo

Cumas Partnership
Cunnane, Stratton, Reynolds (John Crean on behalf of
established clients)

D

Department of Arts, Heritage, Gaeltacht & the Islands
Department of Enterprise Trade and Employment
Department of Foreign Affairs
Department of the Marine and Natural Resources
Department of Tourism, Sport and Recreation
Derry City Council
Derry City Partnership Board
DIT – Joint submission with University of Ulster,
Jordanstown
Donegal County Council and CDB
Drogheda Chamber of Commerce
Dublin Chamber of Commerce
Dublin City Business (DCCBA LTD)
Dublin City University
Dublin Corporation
Dublin Regional Authority
Dublin Transportation Office (DTO)
Dúchas
Dun Laoghaire Rathdown
Dun Laoghaire Rathdown Planning Authority
Dundalk Chamber of Commerce
Dundalk South West Development Co. Ltd
Dundalk Urban District Council
Dunne, Mary C. Tullamore

E

East Clare Walking Holidays
East Coast and Midlands Tourism
East Mayo Enterprise Group
Eastern Regional Fisheries Board
Economic and Social Research Institute
EIRGRID (ESB National Grid)
Electricity Supply Board
Enterprise Connacht/Ulster
Enterprise Ireland
Environmental Protection Agency (EPA)

F

Faculty of the Built Environment, DIT (Dr Brendan
Williams)
Fahey, Frank TD
Fermanagh District Council
Fingal County Council
Fitzgerald, John, Co. Kilkenny
Flanagan, Charles TD, Portlaoise
Flavin, Nicholas AP, Co. Laois
Fleming, Sean TD
Forfás, Enterprise Ireland, IDA Údarás, joint submission
Foyle Development Organisation

G

GAA (Cunnane, Stratton Reynolds)
Gallagher, John, Tubbercurry, Co. Sligo.
Galway Chamber of Commerce and Industry
Galway City Community Forum
Galway City Development Board
Galway Corporation
Galway County Council
Galway County Development Board
General Council of County Councils
Great Southern Trail (Co. Limerick)
Green Party (Cllr. Ciaran Cuffe TD)
Grehan, Peter A, Caherdaniel, Co. Kerry
Gweedore Chamber of Commerce

H

Hazelhatch village (Property Developers)
Heine, Christine, Dowra, Co. Leitrim
Heine, Dr Roland, Dowra, Co. Leitrim
Heritage Council
Hilliard, Fergus, (Westmeath Examiner Ltd).
Hoey and Denning Solicitors, Tullamore
Hughes, Brian P, Chartered Surveyor, Blackrock, Co. Dublin

I

IBEC
IBEC Dublin Region
IBEC Kerry Branch
IBEC Mid West
IBEC North West
IBEC South East
ICMSA
IHBA
Institute of Geologists of Ireland
Institution of Engineers of Ireland
Ireland West Tourism
Irish Academy of Engineering
Irish Concrete Federation
Irish Farmers' Association
Irish Landscape Institute
Irish Planning Institute
Irish Rural Link
Irish Tourist Industry Confederation
Irish Wheelchair Association
Irish Wildlife Trust (Waterford Branch)

J

JSL Group, Building and Civil Eng, Galway

K

Keaveney, Cecilia TD
Keeve, John, Co. Donegal
Keilthy, Liam, (Park Rite Ltd.)
Kerry County Council
Kerry County Development Board
Kilbeggan Grand Canal Harbour Restoration
Kildare County Council

Kildare Meath Wicklow Planning Alliance
Kildare North Labour Party
Kilkenny County Council
Killeen, Tony TD
Kiltimagh IRD Ltd

L

Labour Party (Eamon Gilmore TD)
Laois Chamber of Commerce
Laois County Council
Leitrim County Council
Lennon, Seamus (by email)
Limerick Chamber of Commerce
Limerick Corporation
Limerick County Council
Limerick County Development Board
Líonra (3rd Level in BMW)
Longford County Council, incl. CDB and Community Forum
Louth County Council

M

Mac Gabhann, Cathal, Bearnna, Gaillimh
Mayo County Council
Mayo County Development Board
McCann, Brendan, Waterford Green Party, Earthwatch
McEvoy, Cllr. Tony, Clane, Co. Kildare
McGinley, John , Nenagh
McHugh, Cllr Declan, Donegal County Council
McMullin, Catherine, Killorglin (member of Kerry branch of An Taisce)
Meath County Council
Meath County Development Board
Mid East Regional Authority
Mid South Roscommon Rural Development Company
Mid West Regional Authority
Midland Health Board
Monaghan Chamber of Commerce
Monaghan County Council
Moroney, Eoin, Dublin 7
Muintir na Tíre
Mulholland, Pat, Dundalk, Co. Louth
Murray O'Laoire Architects

N

N7 Residents Association (N7RA)
Navan Chamber of Commerce
Navratil, Ian J, Midleton
New City for the West Company Ltd.
Newbridge Chamber of Commerce
North Roscommon Community Forum
North West Chambers of Commerce Initiative
North West Region Cross Border Group
North West Tourism
North Western Health Board
National Roads Authority (NRA)

O

O'Sullivan and Co. Ltd., M.C., Consulting Engineers
O'Dwyer, Alan, Cahir, Co. Tipperary
O'Neill, C.M., Kingscourt, Co. Cavan
Offaly County Council
Offaly County Development Board
Offaly Historical and Archaeological Society
Office of Director of Telecommunications Regulator
Office of the Strategic Planning Guidelines for the
Greater Dublin Area
Organic Education Centre, Drumcollogher, Co. Limerick

P

PLANET , the Partnerships Network
Port of Cork

R

Rafferty, Joe, Roundstone, Co. Galway
Reid, Cllr. P, Ballybofey
RGDATA
Roscommon County Council and
County Development Board
Roscrea Economic Implementation Committee/ Chamber
of Commerce
Royal Institute of Architects of Ireland
Royal Town Planning Institute (RTPI) — Irish Branch
Southern Section

S

Shannon Development
Shannon Rail Access Steering Committee
Sinn Fein, New Ross
Sligo Corp., Co. Council., Chamber of Commerce and CDB
joint submission
Society of Chartered Surveyors
South County Dublin Development Board
South Dublin County Council
South East Regional Authority
South East Tourism
South Kerry Development Partnership Ltd
South West Regional Authority
Southern and Eastern Regional Assembly
Southern Health Board

Southern Regional Fisheries Board
Spellman, Helen, Galway City
SRC Townlands Committee, New Ross
Strategy Waterford

T

Tagoat Community Council, Co. Wexford
Tallaght Partnership
Teagasc
Tesco Ireland Ltd
Thurles Chamber of Commerce
North Tipperary County Council/ North Tipperary County
Development Board
Tipperary South Riding County Council
Tralee UDC
Treasury Holdings Limited
Tullamore Chamber of Commerce

U

Údarás na Gaeltachta

W

Ward, Gerald, Naas.
Waterford Chamber of Commerce
Waterford City Development Board
Waterford Corporation
Waterford County Council
Waterford Institute of Technology
West Regional Authority
WESTBIC (Business centre for West and North West)
Western Development Commission
Western Health Board
Westmeath County Council
Westport Chamber of Commerce
Westport UDC
Wexford Area Partnership
Wexford Corporation
Wexford County Council
Wexford County Enterprise Board
Whitney, Warren, TCD
Wood, Cllr. Tom, Cashel UDC

Total number of submissions = 259

Appendix II:

Population Distribution and Housing Demand Projections:

Introduction

This Appendix outlines the assumptions and approach used in the overall population and household projection data presented in section 2 of the NSS. The Appendix also focuses on the assumptions underlying the economic growth driven projections that were prepared in the initial research for the purposes of the NSS.

Overall Projection Methodology and Assumptions

Methodology

The projection method used is cohort survival, using, as the starting point, CSO estimates of regional population by age and sex for each planning region in April 2000. Projection is by five year cohort, for five year intervals.

This Appendix summarises the assumptions used. The methodology as well as the assumptions used for projection of population, households and workforce, are described in the full population report which is available at www.irishspatialstrategy.ie

The population projections yielded two broad sets of results:

- (1) Two current trends scenarios (CTS) based on current population trends continuing into the future without spatial policy trying to influence them. The scenarios differ by virtue of varying assumptions regarding fertility and mortality.
- (2) Two economic growth scenarios (EGS) based on extra economic activity and therefore population growth occurring in the regions outside Dublin. The projections contained in Section 2 are from the second of these economic growth scenarios.

Mortality

The mortality assumptions used in the NSS projections follow those of the CSO Population and Labour Force Projections 2001-2031¹⁶, with no regional differential.

Fertility assumptions

The NSS population model operates on age specific fertility rates applied to all women irrespective of marital status, with no differentiation between fertility of migrant and non-migrant women.

- The CSO F1 fertility assumption is for a Total Fertility Rate (TFR) of 2.0 to be maintained through to 2031. This is the assumption adopted in the current trends Scenario 1. The ESRI¹⁷ suggest that the TFR will fall to the EU average and stabilise at 1.8 over the next decade. Current Trends Scenario 2 is based on the CSO F2 assumption, which calls for a decrease after 2001 to reach 1.75 by 2011 and remaining constant thereafter. For the Economic Growth Scenarios, the CSO F1 assumption is used.
- Differentials in the Total Fertility Rates between the regions in 1996 were diminished through the projection period, and eliminated by 2033. This is a response to increasing uncertainty with the passage of time.
- The share of births between cohorts was held steady for each region.

¹⁶ Central Statistics Office, Population and Labour Force Statistics 2001-2031, Dublin, Stationery Office, July 1999.

¹⁷ Duffy, Fitzgerald, Kearney and Smyth Medium Term Review 1999-2005 ESRI, October 1999

Migration Assumptions

Migration has been dealt with in the following way.

Four separate migration streams have been identified for each region.

- Gross international in-migration to the region from outside the State¹⁸
- Gross international out-migration from the region, to outside the State
- Gross internal in-migration to the region, from elsewhere in the State, differentiating each sending region separately
- Gross internal out-migration from the region, to elsewhere in the State, differentiating each receiving region separately.

These flows are dis-aggregated by age and sex. The model is an integrated one, where all regional outcomes are inter-dependent. This has been achieved by allocating shares of international migration to each region and creating a single matrix of all inter-regional migration flows.

International in-migration and out-migration has been varied at national level, with the current trends projections following the 1999 CSO M1 assumption¹⁹. The regional shares are kept constant for the current trends projections. The shares used are based on Quarterly National Household Survey (QNHS) data for the period 1992-99. The age structure of external migrants has not been varied, either between regions or over time.

For the economic growth scenarios, international out-migration is retained at CSO M1 levels nationally, and regional shares are as set out above. International in-migrants in each region are varied to match projected employment growth, by a process of iteration, as described in the final report referred to earlier.

For both current trends and economic growth scenarios, **internal migration flows** were calculated by applying the shares of gross in and out flows experienced by each region in the year 1995-96 (from the Census of Population), to the total internal migration assumed in each projection period, separately for males and females. The total flows have been assumed to be constant for the purposes of the current trends projection. The age structure of migrants has also been assumed to remain unchanged for these projections.

Because all movements internal to the State must balance exactly in each cohort, only in-migrant age structures were used in the calculation process. The relevant in-migrant age structure for males or females for a particular region was used to calculate the age structure of movement to that region from every other region. The implicit assumption in this approach is that in-migrant age structures for any region do not vary with the region of origin of the migrant.

Participation rates (for workforce projections)

In order to project the workforce, age specific participation rates²⁰ for males and females, were applied to the projections of population.

Variations in female participation rates depend less on marital status, than on whether the woman has young dependent children or not. For this reason, the CSO methodology of projecting participation rates was not followed. Instead, the ESRI Medium Term Review target rates for males and females by five-year age cohorts for 2011 were assumed to apply in 2010. In addition a steady movement towards these rates was assumed from a base in 2000, using participation rates available at State level from the QNHS for this date.

¹⁸ International migration includes migration between the Republic of Ireland and Northern Ireland.

¹⁹ International in-migration set at 40,000 per annum in the period 2000-2005; 35,000 in 2005-2010; and 25,000 thereafter. Out-migration is set at 25,000 p.a. in the period 2000-2005; 25,000 in 2005-2010; and 20,000 thereafter.

²⁰ The (labour force) participation rate for a given cohort is the proportion of that cohort who are in the labour force.

This trend has been continued beyond 2011, though capped where appropriate, using international experience.

For projection purposes, the observed regional rate differentials are maintained throughout the projection period.

Headship rates (for household projections)

Age specific headship rates²¹ are projected (combining males and females) and applied to the relevant age cohorts in order to estimate the number of households. Headship rates at national level had been calculated prior to calibration, by applying the ESRI 2011 rates to the year 2010 and assuming a steady growth in the rates in each age group between 1996 and 2010.

The 2011 rates were then adjusted such that the total households in 2000 agreed with the QNHS estimates on their growth path through that year. A standard adjustment was made to all age groups, with the exception of the 15-24 age groups, which were more heavily weighted in their growth.

Regional rates were adjusted to agree with QNHS data for 2000 households by varying the relationship between regional and national rates in each age group for each region separately. For example, the rate in each age group in Dublin, was reduced by 5.4%, in order to make the 2000 households obtained by application of headship rates, agree with the QNHS estimate of Dublin households in 2000.

Projection procedures for the Main Cities

Much of the projection procedure for the main cities mirrors that adopted for the regions.

Fertility rates, headship rates and participation rates are assumed to be as for the region in which the city lies.

Migration flows are derived as proportions of flows applied to the region in which the city is located. These proportions may be varied through time. This then provides estimates of the residual area of the region by deduction.

In all scenarios, the gross internal out-migration flows to the cities are assumed to reflect the size of the city population in the region, in 1996.

Also in each scenario, international in-migration is set such that in every quinquennial period of the projection, the growth in the share of the regional population accounted for by the main city in that region, reflects the growth experienced in the period 1991-96. Thus if a city increased its share of regional population by one percentage point in 1991-1996, it is assumed to increase it by a further percentage point in every subsequent five year period.

It should be stressed that the projections for the main cities should be regarded as broadly illustrative, since detailed Census and QNHS data are not available for the purpose of estimating gross migration flows. Studies have recently been completed or are under way, in all four cities outside Dublin that may be of assistance in further refining these projections.

The projection process has been approached on the basis that taking account of past trends, cities are likely to experience an increasing share of regional population. Once the total population has been determined in this way, the model arrives at workforce and households as for the regions.

Employment projections for the economic growth scenarios projections

In order to provide a basis for projecting population on an economic growth scenario basis, estimates are required of employment at each period to 2020.

²¹ The headship rate for a given cohort is the proportion of that cohort who are heads of household.

The starting data were the 1996 Census breakdowns by industry of the working population resident in each region. It was assumed that these were equivalent to the regional employment structures – i.e. that the effects of commuting were negligible at the regional level. To preserve this assumption it was necessary to combine the Dublin and Mid-East Regions into a single Greater Dublin Region.

A distinction is made between non-basic industries that are dependent on the local (that is, regional) population – such as bakeries, local newspapers and other local services and basic industries that produce for wider markets, national and international such as in the manufacturing and internationally traded services areas.

For the State as a whole, the projections were based on industry-specific growth rates derived from the *ESRI Mid-Term Review 1995-2005*.²²

Projected growth rates for each basic sector at national level were applied to the regional employment base in the sector. A simple model that related non-basic employment to the regional population was then used to resolve levels of employment and migration in each quinquennial period by iteration.

Methodology for the derivation of "NSS Economic Growth projections in section 2.4.7"

The economic growth type population projections in Section 2.4.7 illustrate the potential effect of increased levels of economic activity and therefore population growth occurring in the regions as a result of implementation of the NSS. The projections used in the section referred to above assume that a proportion of employment growth projected to take place in the Greater Dublin Area, would instead take place in the regions as a result of the implementation of the NSS and the enhanced critical mass of strategic centres such as the Gateways.

Table 1 below shows the extent to which projected employment increases in basic sectors, which might otherwise have occurred in the Greater Dublin Area were assumed to take place instead in the regions in the context of implementing the NSS.

Table 1: Percentage of future projected new basic sector employment in GDA assumed to take place instead in the regions

2000-2005	2005-2010	2010-2015	2015-2020
24	16	16	16

It must be emphasised that the model is illustrative in terms of broadly defining the quantum of extra economic activity that would have to take place in the regions to achieve more balanced patterns of population growth and other forms of development such as housing provision.

Built into the model are the impacts of commuting on the overall distribution of population. In the other scenarios, it is assumed that there are no cross-regional journey to work flows.

Whilst this is a reasonable assumption for most regions, the faster growth and greater pressure which arises from this scenario, indicates that some provision should be made for persons resident in the Border, Midland and South-eastern regions, who are living in these regions but commuting to Dublin daily.

The total increase in the number of commuters as assumed to be 1,000 per annum or 20,000 over the twenty year period. They are assumed to be all in the basic sectors. These jobs are regarded as having been transferred to the Border region (40%), the Midland Region (40%) and the South East Region (20%), in order to simulate the spin-off impact through household expenditure etc. The 20,000 basic jobs must then be added back into the Dublin and Mid-east region over the period for the purpose of calculating the level of employment growth required in the regions.

²² In overall terms the ESRI 1999 to 2005 Review anticipated that total employment levels would reach 1.548 million in 2000 and 1.749 million in 2005 as compared with 1.134 million in 1990. Growth in employment was expected to continue more slowly over the next decade, with an additional 430,000 people expected at work by 2010 as compared with 1998. In the Review the Irish economy was expected grow at around 5% a year over 2000 to 2005, 4.3% a year over 2005 to 2010 and to revert to a "more normal" European growth rate of 3.2% after 2010

Appendix III:

Population Trends in Towns in Ireland With Populations Greater than 5,000.

In 1966 there were a total of thirty-three cities or towns with populations in excess of 5,000. This had increased to fifty-eight by the 1996 Census. The breakdown of the number of towns by size is set out in the table below.

Table 1: Number of towns over 5000 population in 1966-1996

	1966	1971	1996
Towns with Pop. greater than 5,000 but less than 10,000	19	23	28
Towns with Pop. greater than 10,000 but less than 25,000	9	10	22
Towns with Pop. greater than 25,000.	5	5	8
Total number of Towns with a population greater than 5,000	33	38	58

Of the twenty-eight towns and cities with populations in excess of 5,000 in 1966, only two (Thurles and Ballinasloe) showed a minor reduction in population by 1996. These two towns, however, remained in the category of towns with over 5,000 population.

Within these twenty-eight towns, there have been some significant changes in population size of towns relative to each other, with Thurles for example changing from fifteenth largest to twenty-fifth largest and Newbridge changing from twenty-sixth to eleventh largest. The other centres whose rank order position in population size, fell in relative terms, are Enniscorthy, Cobh and Ballinasloe, while Navan and Portlaoise have risen significantly in population rank order relative to other towns. The influence of the growth of Dublin on those towns showing the most growth in population is clear, both within the original twenty-eight and the additional twenty-five centres which have emerged between 1966 and 1996.

The trends indicate that urban centres with a population of at least 5,000 appear to have the ability to retain their populations and to enjoy significant growth in many cases. Tables 2 and 3 attached list all of the towns with a population of more than 5,000 in 1966, 1971 and 1996, with the exception of Dublin, Cork, Limerick, Galway and Waterford.

Table 2 Towns by Order of Size 1996

No.	County	Town	1996
1	Louth	Dundalk	30,195
2	Wicklow	Bray	27,923
3	Louth	Drogheda	25,282
4	Fingal	Co. Swords	22,314
5	Kerry	Tralee	19,950
6	Kilkenny	Kilkenny	18,696
7	Sligo	Sligo	18,509
8	Clare	Ennis	17,726
9	TipperaryS	Clonmel	16,182
10	Wexford	Wexford	15,862
11	Westmeath	Athlone	15,544
12	Cork	Douglas	14,543
13	Kildare	Naas	14,074
14	Cork	Ballincollig	13,760
15	Fingal	Co. Malahide	13,539
16	Kildare	Leixlip	13,451
17	Kildare	Newbridge	13,363
18	Meath	Navan	12,810
19	Westmeath	Mullingar	12,492
20	Kildare	Celbridge	12,289
21	Kerry	Killarney	12,011
22	Donegal	Letterkenny	11,996
23	Carlow	Carlow	11,721
24	Wicklow	Greystones	11,296
25	Offaly	Tullamore	10,039
26	Laois	Portlaoise	9,474
27	Fingal	Portmarnock	9,145

Towns with population >5,000

No.	County	Town	1996
28	Mayo	Ballina	8,762
29	Wicklow	Arklow	8,557
30	Mayo	Castlebar	8,532
31	Kildare	Maynooth	8,528
32	Fingal	Balbrigan	8,473
33	Cork	Cobh	8,459
34	Clare	Shannon	7,939
35	Cork	Carrigaline	7,824
36	Cork	Mallow	7,768
37	Wexford	Enniscorthy	7,640
38	Fingal	Skerries	7,339
39	Wicklow	Wicklow	7,290
40	Waterford	Dungarvan	7,175
41	Longford	Longford	6,984
42	Tipperary N	Thurles	6,939
43	Waterford	Tramore	6,536
44	Cork	Midleton	6,209
45	Wexford	New Ross	6,147
46	Cork	Youghal	5,943
47	Tipperary N	Nenagh	5,913
48	Monaghan	Monaghan	5,842
49	Galway	Balinasloe	5,723
50	Cavan	Cavan	5,623
51	Fingal	Rush	5,429
52	Kildare	Athy	5,306
53	Tipperary S	Carrick on Suir	5,217

Note: Dublin, Cork, Limerick, Galway and Waterford are not included

Table 3 Towns by Order of Size 1971

No.	County	Town	1971
1	Louth	Dundalk	23816
2	Louth	Drogheda	19889
3	Wicklow	Bray	15501
4	Sligo	Sligo	14456
5	Kilkenny	Kilkenny	13306
6	Wexford	Wexford	13293
7	Kerry	Tralee	13263
8	Tipperary S	Clonmel	12164
9	Westmeath	Athlone	11342
10	Clare	Ennis	10840
11	Carlow	Carlow	9588
12	Westmeath	Mullingar	9175
13	Kerry	Killarney	7541
14	Offaly	Tullamore	7474
15	Cork	Cobh	7141
16	Tipperary N	Thurles	7114
17	Wicklow	Arklow	6948
18	Meath	Navan	6665
19	Wexford	Enniscorthy	6642
20	Cork	Mallow	6506
21	Mayo	Castlebar	6476
22	Laois	Portlaoise	6470
23	Kildare	Newbridge	6444
24	Mayo	Ballina	6369
25	Galway	Balinasloe	5969
26	Cork	Youghal	5626
27	Waterford	Dungarvan	5583
28	Monaghan	Monaghan	5256
29	Donegal	Letterkenny	5207
30	Tipperary N	Nenagh	5173
31	Wexford	New Ross	5153
32	Kildare	Naas	5078
33	Tipperary S	Carrick on Suir	5006

Towns by Order of Size 1966

No.	County	Town	1966
1	Louth	Dundalk	21876
2	Louth	Drogheda	17992
3	Sligo	Sligo	13698
4	Wicklow	Bray	13580
5	Wexford	Wexford	12627
6	Kilkenny	Kilkenny	12351
7	Kerry	Tralee	12171
8	Tipperary S	Clonmel	11376
9	Westmeath	Athlone	10817
10	Carlow	Carlow	9321
11	Clare	Ennis	9181
12	Westmeath	Mullingar	8467
13	Kerry	Killarney	7150
14	Offaly	Tullamore	7147
15	Tipperary N	Thurles	7000
16	Cork	Cobh	6768
17	Wexford	Enniscorthy	6501
18	Mayo	Ballina	6378
19	Wicklow	Arklow	6083
20	Meath	Navan	5997
21	Mayo	Castlebar	5991
22	Cork	Mallow	5987
23	Laois	Portlaoise	5927
24	Galway	Balinasloe	5828
25	Waterford	Dungarvan	5380
26	Kildare	Newbridge	5285
27	Cork	Youghal	5221
28	Monaghan	Monaghan	5019

Note: Dublin, Cork, Limerick, Galway and Waterford are not included

Appendix IV:

Polycentric Development Models in Europe

Polycentric development involves linking and integrating the development of a number of urban centres in a way that combines their strengths in terms of infrastructure co-ordination, business promotion, innovation and cultural ties.

Various approaches to polycentric development are evolving across the EU. Some of these approaches are at the major city level and are not particularly relevant to the Irish experience. Elements of emerging co-operation between networks of larger and smaller towns are more relevant.

The Danish experience is of particular interest from an Irish point of view. Notwithstanding the obvious geographical and topographical differences between Denmark and Ireland, there are many parallels between the countries in terms of spatial structure for instance,

- Denmark's national population is around 5 million people
- the population of its capital Copenhagen is around 1 million people
- Copenhagen occupies a dominant position within the urban hierarchy.

The overall basis for regional development in Denmark includes a key role for urban centres at strategic locations acting as national 'locomotives' of regional growth — embracing a positive partnership between town and country and which recognises the strengths of both cities and diversified rural districts.

It is recognised in Denmark that local identities and qualities are very important for competitiveness and economic and social progress, and that spatial planning has a strong role to play in organising and enhancing these characteristics.

In searching for a new national level centre on Jutland, the mainland part of Denmark, it was realised that no individual centre there had the characteristics to perform effectively at the national-international level. Nonetheless, a group of municipalities came together in what has become known as the 'Triangle Region' to jointly promote and develop their area as a polycentric national centre.

The Triangle Region was established in 1993 as a collaboration between eight municipalities²³ comprising 225,000 people over a 60 km radius at a strategic location within Denmark's national transport structure. The municipalities range in population from 60,000 to less than 5,000.

In 2000, the region was identified as a new national centre by the Danish Government and this has positive implications for the type of activities and functions being supported by Government in various areas such as transport, education etc.

The principal areas of co-operation principally include:

Industrial development – including a transport forum, the IT club, business magazine, exhibitions and training courses.

International marketing – including co-operation between business development offices, seminars and promotion.

Urban development – including representation in relation to regional and national planning issues and public transport.

Culture, sport and recreation – including cultural events, development of multi-use arenas and stadia.

Education – including education fairs and collaborative projects with the University of Southern Denmark.

Other areas including waste management, joint purchasing etc.

²³ Denmark has three layers of administration, (1) Central government, (2) counties, that are effectively the regions and which include both urban and rural areas and (3) municipalities which are responsible for either one or a number of urban areas and associated rural areas. (2) and (3) are financed through local taxes on income and property and are responsible for a wide range of functions including health care and education.

There are some key lessons from the Triangle Region experience for the polycentric models suggested in the NSS.

- *How it has been described:* The eight municipalities see themselves collectively as Denmark's largest 'Open Green City', with each town having its own special character and function as either a large or small centre but within an overall urban community. The municipalities are linked by a shared interest in developing prosperity and welfare, while enhancing the environment and quality of life in the region. There is lively traffic between the towns – both in trade and in the use of each other's cultural and educational institutions.
- *Process:* The Triangle Region is seen more as a process of interaction, sharing of resources, marketing etc than a de facto city. This suggests the need to promote multi-centred gateways as exercises in collaboration and joint marketing initially, building towards collaborative planning eventually over say a three to five year time period. The Danish mechanism for doing this is outlined below.
 - *Annual Conference:* All town councillors in the eight municipalities take part in an annual conference to debate selected themes and present projects and ideas for the future. The conference provides councillors with the opportunity to identify strategic issues and discuss strategies and plans to deal with these issues.
 - *Expanded Mayoral Meetings:* Four expanded mayoral meetings are held each year. The participants are the eight mayors and two town councillors from each municipality. The participants' tasks include preparing proposals for action plans and strategies for consideration by the town councils as well as proposals for new projects and other functions.
 - *Management:* The chief executives of the municipalities are members of the Triangle Region Management Board and each member of the board is responsible for one of the Triangle Regions activities. The board appoints key leaders for work and project groups as well as co-ordinating and supervising day to day activities in the Triangle Region.
 - *Secretariat:* The Triangle Region collaboration is serviced by a secretariat responsible for the day to day administration of current projects and initiatives. The secretariat prepares for the annual conference, and mayoral meetings. The secretariat also undertakes the practical implementation of decisions, manages financial matters and provides secretarial support to the Management Board, the expanded mayoral meetings and an International Marketing Director.
- *Inter town competition:* Within the Triangle Region, individual urban centres continue to promote themselves locally for available inward investment. However this is balanced by collaborating on promotion of the region, e.g. through lobbying central Government and marketing. Through an industrial council, the larger municipalities have industrial intelligence systems and brief themselves on business trends through registers of local business, interactions with businesses and commercial groups etc. Some specialisation of functions is happening in public services.
- *Improving Urban-Rural Relationships:* There is much emphasis in municipal plans (which encompass urban as well as rural areas) in presenting a clear picture of the development issues and opportunities for urban and rural areas in an integrated way.
- *Role of Transport:* This is a critical area. The location of the Triangle Region has some parallels with the Midlands of Ireland. It is located at an intersection of North-South and East-West road and rail routes. Local and inter-city rail services are integrated so that every thirty minutes or so, there are trains to all centres. The maximum time it takes to travel from one centre to another is about 40 minutes. A central railfreight distribution hub that facilitates road-rail vehicle interchange has been provided. This is now attracting various employment activities that are locating centrally within the region's population catchment.

- *Finance:* Municipalities are broadly financially self-supporting. This means two things - (1) They have the capacity to support local planning through acquiring land, framing local plans and supervising development. (2) Their strength and autonomy at the local level sometimes means that it can be time consuming to effect major initiatives at a central level.

Appendix V:

Selection Rationale for Identified Towns

1: Gateways

Sligo

Sligo was selected as a gateway because of its strategic location in the North West, its physical and infrastructural capacity to develop substantially in the future and its stock of the critical factors such as water services, education and healthcare, necessary to support Gateway functions. Sligo's spatial position means it is capable of energising a wider area encompassing parts of Mayo, Leitrim, Donegal and Sligo county itself as well as capitalising on emerging cross-border co-operation, while being part of a broader corridor of cities spanning from Cork to Derry.

Letterkenny-Derry

Derry is the fourth largest city on the island. Given its size, location and functions, Derry has been identified as a major regional city for the North-west including Donegal in "Shaping our Future" the Regional Development Strategy for Northern Ireland. Derry's role has been reciprocated in the NSS in that Letterkenny has been identified as having a spatial and developmental function that could be co-ordinated with that of Derry to enhance critical mass and energise the wider Donegal and North-western areas. Letterkenny is a significant centre in its own right, as the focal point of transport networks in Donegal, having substantial capacity for development, good education (with Letterkenny Institute of Technology) and healthcare facilities as well as good connections to Derry, itself an important transport hub.

Dundalk

Dundalk is one of the largest towns in Ireland and occupies a strategic position between Dublin and Belfast, proximate to the border with Northern Ireland. Dundalk is on nationally strategic road and rail links and is well positioned spatially to energise eastern parts of the Border area. Dundalk has substantial capacity for development in land and services terms and contains important facilities such as the Institute of Technology. Taking account of these strengths and the issue of ensuring development within the Dublin-Belfast corridor as well as at either end, Dundalk is a logical choice as a gateway.

Athlone/Mullingar/Tullamore

Critical mass is central to delivering balanced regional development. In the Midlands, no individual centre would be likely to develop to the required scale and critical mass on its own in population or infrastructure terms. Echoing recent experience at EU level, co-operative networks between urban centres reasonably close to one another pointed towards similar opportunities in the Midlands.

Athlone, Mullingar and Tullamore are reasonably proximate to one another, strategically located on east-west road rail energy and communications links, contain complementary infrastructure and individually and collectively, have substantial capacity for development in services terms. For example, Athlone contains the Institute of Technology, a range of employers and important retail functions. Mullingar and Tullamore have important healthcare and retail functions.

Improved accessibility to these facilities would enable them to be shared better and would allow the region to be seen as having the type of infrastructure and critical mass comparable to a larger urban centre.

2: Hubs

Castlebar-Ballina

These towns are strategically located in the West. The centres also contain complementary functions and capabilities that point towards a capacity to develop and energise wider areas through integrated and co-ordinated development. Castlebar has important healthcare, education (through the Galway/Mayo Institute of Technology) retailing and administrative functions, while Ballina has important employment and tourism functions and a substantial capacity for development. With enhanced physical links between these centres in terms of transport and communications, Castlebar-Ballina will perform an important spatial function in the NSS context.

Cavan

Cavan is strategically located on the N3 route between Dublin, the Midlands gateway of Athlone / Tullamore / Mullingar, the Sligo gateway and Monaghan as a hub. Cavan also occupies a strategic position within a large, predominantly rural hinterland, as well as being proximate to the border and other major towns in Northern Ireland such as Enniskillen. Cavan performs important administrative, retailing and employment functions for its substantial catchment.

Ennis

Ennis is closely related in economic and other terms with the Mid West and Limerick and Shannon particularly. Its development, based on a large and growing population base, location on the national roads and rail networks adjacent to Shannon Airport, and its capacity for growth all suggest a nationally strategic role, as part of improving interaction and sharing of strengths between western cities. Ennis is also strategic regionally and locally as a hub within its own catchment in terms of transport, retailing, employment, education and administration functions.

Kilkenny

Kilkenny is a centre with a substantial population base, a highly successful tourism sector, improving accessibility due to a location on the national road and rail networks with links to an international seaport, and a strategic location between Dublin and Waterford. Kilkenny also has substantial capacity for development in land and water services terms and is a centre with both the critical mass and distance from Dublin to be capable of being successful in sustaining itself in employment terms, thereby resisting the tendency towards commuter driven development.

Mallow

Mallow occupies a strategic spatial position at the meeting point of the Cork – Limerick and Tralee – Waterford/Rosslare road and rail routes. Mallow's location outside the suburbs of Cork coupled to its function as a hub will strengthen Cork – Limerick interaction and energise its own catchment within north Cork, an area undergoing structural economic change driven by falling farm based employment. It is a large town with a good population base, a substantial capacity for development in water services and land terms and has developing public transport links to Cork.

Monaghan

Monaghan is strategic spatially in the border context because of its location on the Dublin - Derry axis. It is strategically located on the N2 Dublin-Derry road, will be proximate to the Dundalk Gateway and has improving interaction with substantial urban centres in Northern Ireland such as Armagh. Monaghan performs important employment, retailing and administrative functions and has substantial capacity for development in land and water services terms.

Tuam

Tuam will both assist in building links and interactions between the existing gateway of Galway City and the new gateway at Sligo and energise its own substantial catchment in County Galway. Tuam will perform this role through its position in the area's urban structure in terms of population, strategic location on the N17 and regional road networks as well as energy and communication links, its substantial capacity for development and local employment and service functions.

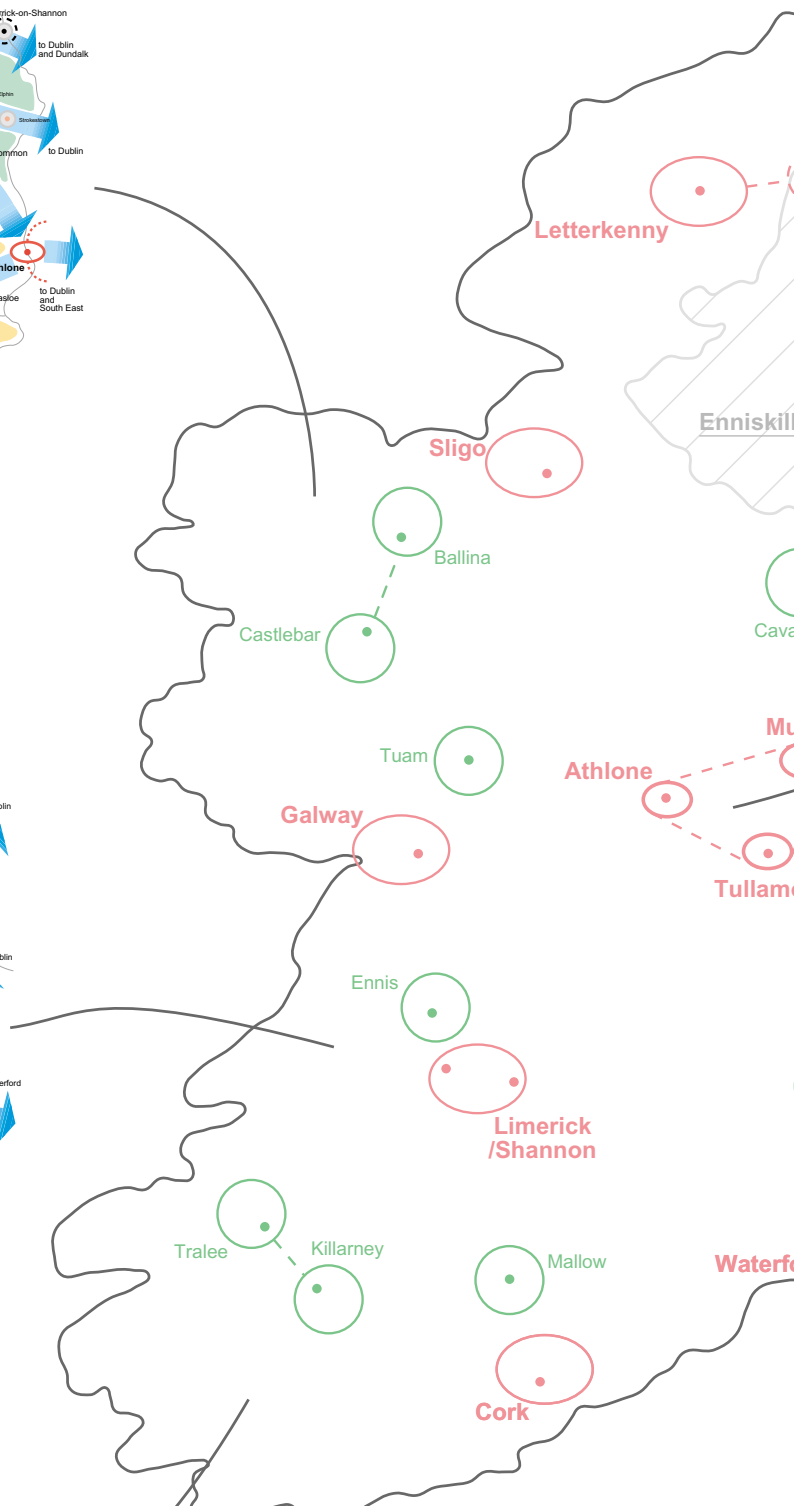
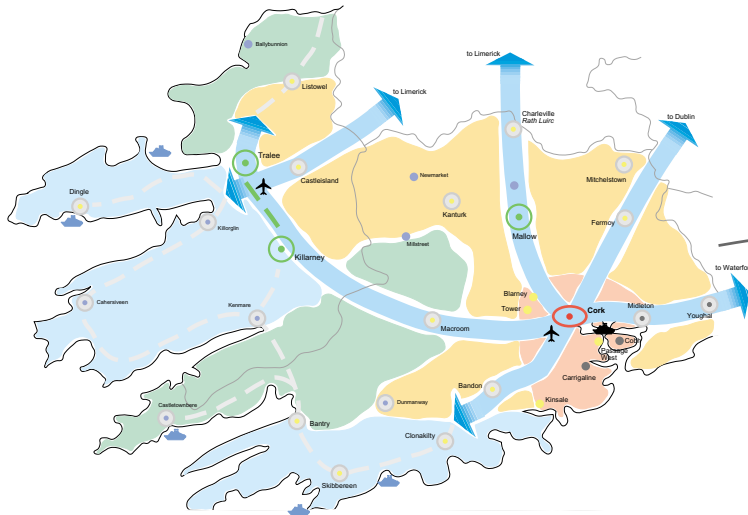
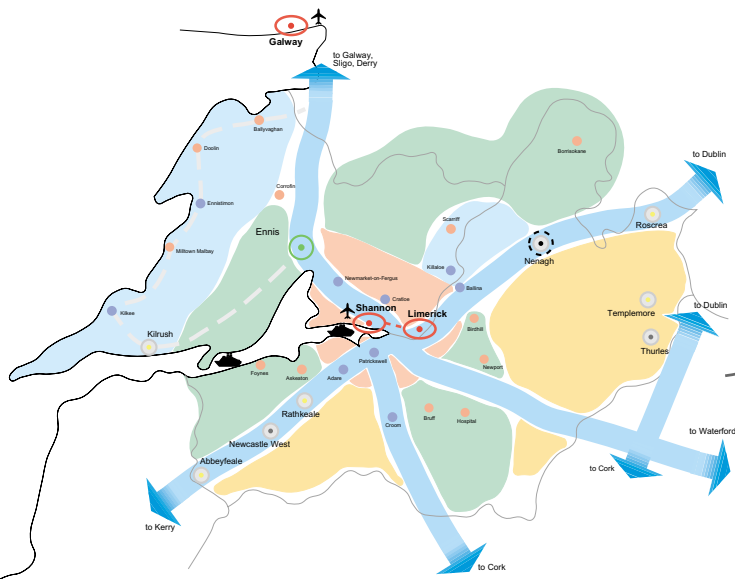
Tralee/Killarney

Tralee and Killarney are adjacent towns that have complementary strengths. Tralee is a town with a substantial population base, location on the national road and rail networks, a developing tourism base, substantial water services and land for development and important employment, retailing and administrative functions. Killarney is a nationally strategic tourism centre with important retailing and employment functions and is also on the national road and rail networks. Through integrated and co-ordinated development, these strengths can be combined resulting in enhanced critical mass and enhanced potential for development in a regional and local sense energising the wider County Kerry area.

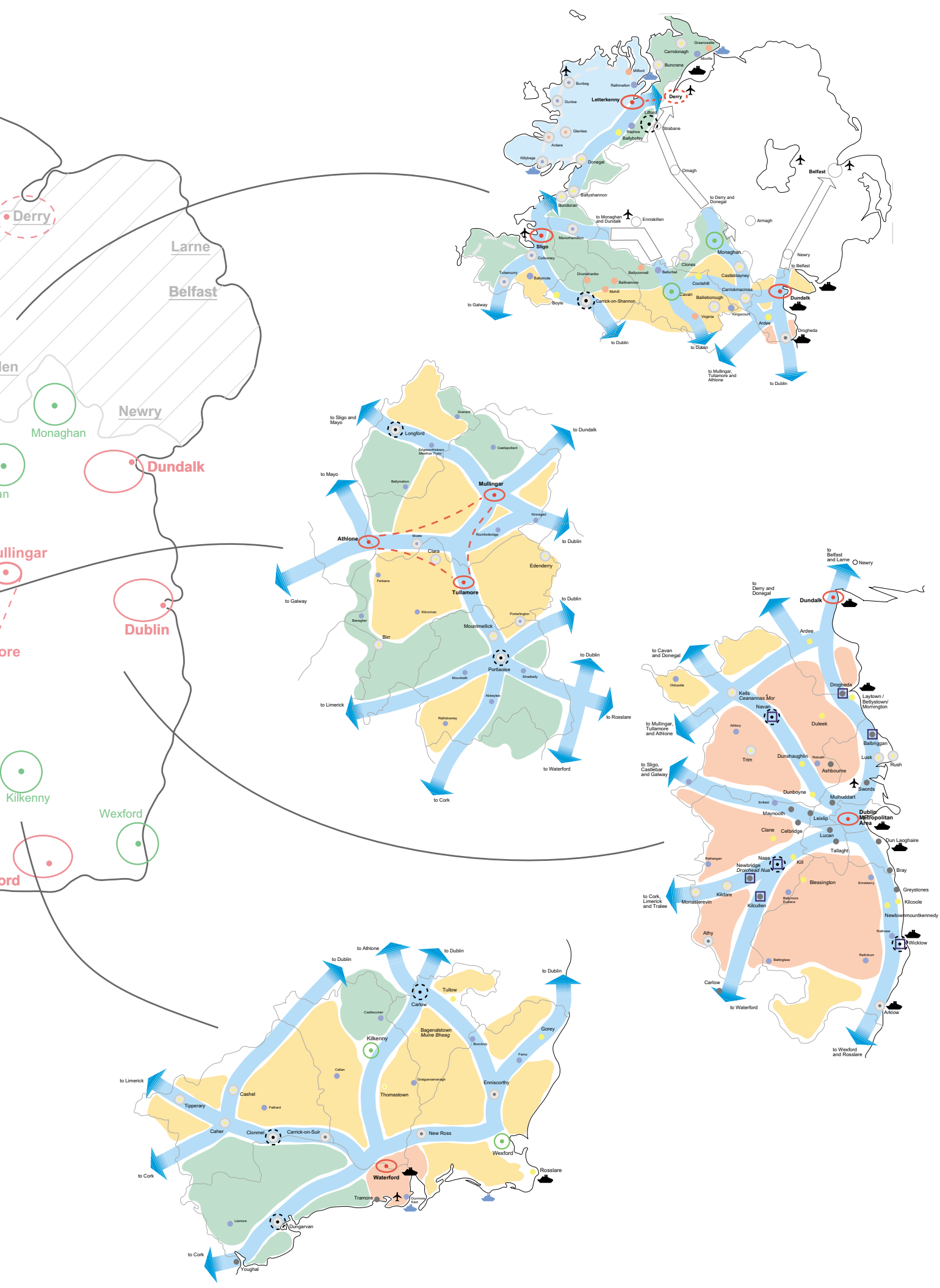
Wexford

Wexford is strategically located in the Southeast, close to Rosslare Port and on the national road and rail networks. These strengths are also combined with its substantial capacity for development and Wexford's various employment, retailing, services and administrative functions. Wexford as a hub has an important spatial role in establishing a "triangle of strength" based around Waterford as a Gateway and Kilkenny as another hub with Wexford. This area will substantially strengthen and energise the Southeast and ensure it plays a full part in the Government's objective for balanced regional development.

Composite Map



- Gateways
- Hubs
- - - / - - - Linked Gateway / Hub
- Derry Major Interregional Role in Northern Ireland
- Area covered by the Northern Ireland Regional Development Strategy



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