Ireland -
Future Spatial Structure

Main Points

→ The NSS supports Dublin's pivotal role in national economic success. It is essential for balanced regional development that the performance of the Greater Dublin Area be built upon and physically consolidated.

→ Strengthening the critical mass of the existing gateways of Cork, Limerick/Shannon, 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.

→ Four new national level gateways are identified: Dundalk, Sligo, and two "linked" gateways Letterkenny/(Derry), and Athlone/Tullamore/Mullingar. A linked gateway is one in which two or more strong towns work in partnership to promote economic and social development in their region.

→ The NSS identifies nine strategically located medium sized hubs. These will support and be supported by the gateways and will link out to wider rural areas. The hubs identified include Cavan, Ennis, Kilkenny, Mallow, Monaghan, Tuam and Wexford. In a similar way to the linked gateways the NSS also proposes that Ballina/Castlebar and Tralee/Killarney act as linked hubs working together to promote regional development in their areas.

→ The NSS recognises that many other county and larger sized towns in Ireland are critical elements in the structure for realising balanced regional development, acting as a focus for strengthening their own areas.

→ The NSS outlines measures through which rural potential can be developed, building upon local strengths in tourism, agriculture, enterprise, local services, land and marine based natural resources, with rural towns and villages assuming increasing importance as a focus for local investment, economic activity and housing development.

→ The NSS proposes that the national spatial structure be supported by a national transport framework, providing an improved network of roads and public transport services, enhancing access and connections throughout the country. This framework will be internationally connected through key points such as airports and ports with links to Northern Ireland, the UK, EU and the broader global economy. The spatial considerations for planning other key areas of infrastructure such as energy and communications are also covered.

3.1 Introduction

This Strategy sets out how Ireland can be spatially structured and developed over the next twenty years in a way that is internationally competitive, socially cohesive and environmentally sustainable. The elements of policy and actions that need to be put in place to achieve this are now set out.

By targeting strategic centres with the potential to be drivers of development at national level and within their own regions, and by including county towns, smaller towns, villages and rural areas in this process, a dynamic urban and rural structure can be achieved.

This will lead to

- a strong and internationally competitive Greater Dublin Area driving both its own economy and national development
- strategically placed, national scale urban areas, acting as gateways, which individually and in combination will be key elements for delivering a more spatially balanced Ireland and driving development in their own regions
- strategic medium to larger sized towns as hubs linked to the gateways, in turn reaching out to more rural parts
- a strengthened county and large to medium sized town structure
- diversified and vibrant rural communities, which contribute to and benefit from the development of larger centres such as gateways and hubs.

For these different elements of the structure, the relevant spatial policies of the NSS can be summarised as follows:

More efficient Greater Dublin Area	The Greater Dublin Area's vital national role is secured in terms of improved mobility, urban design quality, social mix, international and regional connections.
Strong gateways in other regions	Balanced national growth and development are 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 job growth in the regions.
Hubs	Balanced patterns of growth are supported by towns that link the capabilities of the gateways to other areas.
County and other town structure	Balanced patterns of growth are supported by towns that capitalise on local and regional roles and are also linked to the roles of the gateways and development hubs.
Vibrant and diversified rural Areas	Rural areas benefit from enhanced local employment options and from development of their resource potential.

The main characteristics of Gateways and Hubs are shown in Figure 3.1.

Figure 3.1 Gateways and Hubs - Characteristics

Gateways	Hubs
(1) A large urban population (of the order of 100,000 and above) set in a large urban and rural hinterland.	(1) A significant urban population in the range of 20,000 – 40,000 set in an associated rural hinterland
(2) Wide ranges of primary/secondary education facilities and national or regional third level centres of learning.	(2) Primary and secondary education facilities with the option of third level or outreach facilities.
(3) Large clusters of national/ international scale enterprises, including those involved in advanced sectors.	(3) A mix of local, medium sized and larger businesses serving local, regional and national/international markets.
(4) A focal point in transportation and communications terms: (a) on the national roads and rail networks (b) within 1 hour of an airport either with international access or linking to one with such access (c) adequate, reliable, cost effective and efficient access to port facilities (d) effective, competitive broadband access.	(4) An important local node in transportation and communication terms: (a) on the national road and rail or bus networks, (b) with access to a national or regional airport (c) having adequate, reliable, cost effective and efficient access to port facilities (d) with effective and competitive broadband access.
(5) Integrated public transport with facilities for pedestrians and cyclists.	(5) Effective local transport system with facilities for pedestrians and cyclists.
(6) Regional hospital/specialised care.	(6) Local and/or regional hospital.
(7) City level range of theatres, arts and sports centres and public spaces/parks. Cultural and entertainment quarters.	(7) Wide range of amenity, sporting and cultural facilities including public spaces and parks.
(8) City-scale water and waste management services.	(8) Effective water services and waste management arrangements.
(9) Integrated Land-Use and Transport planning frameworks.	(9) Strategies for physical, social and economic development.
(10) Phased zoning and servicing of land-banks in anticipation of needs associated with growth.	(10) Phased zoning and servicing of land - banks in anticipation of needs associated with growth.
(11) Strategic Development Zones	(11) Industrial and local business parks.

Substantial progress towards balanced regional development also requires strong policy responses in relation to accessibility, opportunities for participation and environmental quality issues, which can broadly be summarised as follows:

Enhanced Accessibility	For urban and rural areas, through an interconnected mesh of efficient and integrated road or rail transport systems, energy and communication grids — all designed to converge at nationally strategic locations.
More Opportunities for Participation	This will come about through building critical mass within regions to a level that supports investment in education, health, amenities and social facilities that will enable people to benefit from the opportunities arising from development of a region's potential.
Environmental Quality	It is important to recognise that a high quality environment is a prerequisite for economic success, social cohesion and sustainable development.

Through these policy responses substantial progress can be made over the next twenty years in a way that:

- sustains areas which are growing but lessens development pressures within them
- promotes real regional growth in population and output terms
- achieves greater convergence in terms of income and output between different areas.

3.2 Looking Strategically at the Future.

Achieving a dynamic urban and rural structure will involve working with and building upon the strengths of different places.

Dublin as the capital city plays a vital national role. But it needs effective strategic planning and better management of the strong development pressures within it to secure and consolidate that role for the future.

Increasing interaction is emerging between Dublin and Belfast. This is a significant asset, 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. The growing strength of Dublin and Belfast at either end of an emerging economic corridor also points, however, to the need to secure and enhance the roles of towns strategically placed between these two major centres.

The existing gateways of Cork, Galway, Limerick and Waterford are strategically located in different parts of the country. They have considerable potential for further development and expansion to achieve more balanced regional development.

Derry has been identified in the Regional Development Strategy for Northern Ireland as a Regional City for the North West, including Donegal.

There is evidence of growing interaction between Cork and Limerick and also between Waterford and Cork and between Limerick and Galway. This interaction suggests future possibilities for combining the complementary strengths of these 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.

Cork, Derry, Galway, Limerick and Waterford are located geographically on an arc running from Derry in the North West to Waterford in the South East. Certain other strategically located large towns have the potential capacity to act in conjunction with the existing gateways in delivering the scale of development necessary to complement the economic strength of the cities and towns along the east coast.

Further west there are a number of strategically placed county towns that act as capitals for their own extensive hinterlands, occupy important positions on transport networks and offer a wide range of services to the local population. These places are located within an environment of renowned natural and cultural heritage that is increasingly supporting the economic vitality of these areas. The revitalisation of these areas will need to be sustained by actively pursuing development possibilities, without compromising the quality of the natural and cultural heritage.

A number of medium-sized, neighbouring towns in the Midlands have significant numbers of long-distance commuters working in Dublin. These towns do not have the critical mass to compete with the larger cities on an economic basis. However, by capitalizing on their location and by combining their strengths to work jointly, they could build the critical mass needed to compete for investment.

The evolving all island and EU economic co-operation context points to the need to look to enhancing the role of certain towns located in the border area in the interests of more effective spatial co-operation North and South.

The following section outlines the actions required and the particular places to be assigned specific strategic national roles.

3.3 Acting Nationally and Strategically

3.3.1 Consolidating the Greater Dublin Area

It is essential to the NSS that the performance of the economy of the Greater Dublin Area (GDA) and surrounding counties is built upon so that its success, competitiveness and national role are sustained into the future.

Dublin will continue to grow in population and output terms. However, it is not desirable for the city to continue to spread physically into surrounding counties. The physical **consolidation** of Dublin, supported by effective land use policies for the urban area itself, is an essential requirement for a competitive Dublin. Consolidation is also required for the public transport system to function effectively. In turn, investment in public transport will assist in promoting a more efficient and competitive Greater Dublin Area.

In order to achieve this physical consolidation, the existing and proposed new bodies responsible for strategic planning in the Greater Dublin Area must, particularly in the context of reviews of the current Strategic Planning Guidelines for the Area, take the following actions.

A. In the Metropolitan Area[10]

Carry out a comprehensive and systematic audit of all vacant, derelict and underused land to establish its capacity to accommodate housing and other suitable uses. Such an audit should be focused in particular on areas in or close to public transport corridors and areas with under-utilised physical and social infrastructure (e.g. schools).

Where appropriate, local authorities should be pro-active in using their existing powers (such as those under the Derelict Sites Act, 1991) to facilitate the assembly of fragmented sites and to encourage the relocation to more suitable sites where there is inappropriate land use within city/district centres.

---

10 The metropolitan area was defined for the purposes of the Greater Dublin Area Strategic Planning Guidelines as all of Dublin County Borough, Dun Laoghaire-Rathdown, South Dublin and certain DEDs in Fingal, Kildare and Wicklow.

Ensure the effective use of the existing housing stock e.g. by vigorously promoting 'Living over the Shop' schemes and by seeking opportunities for infill housing in older suburbs which are losing population due to declining household sizes. In particular, the provision of smaller units for older households within settled neighbourhoods could free up family-sized houses.

Encourage the preparation of urban design plans in renewal areas, to establish a framework for buildings and public spaces which can be readily understood by developers and existing communities. Intensification can be achieved without compromising amenity.

Examine the potential of declining industrial and warehouse estates for re-development for new economic activity.

B. In the Hinterland Area

Concentrate development in strong towns with capacity for growth on well-served public transport corridors, such as Navan, Naas, Newbridge, Kilcullen, Arklow, Drogheda and Balbriggan.

Develop and implement Integrated Framework Plans for land use and transportation in such development centres.

With further improvements to its amenities and quality of life attractions, Dublin can maintain and improve its European and world competitiveness in attracting investment and encouraging people to live in the city area itself.

The continuing health of the Dublin is critically dependent on

- creating an efficient and high quality system of public transport connections within the Dublin area to improve access to employment, education, services and amenities
- good international access particularly through Dublin Airport and Dublin Port
- good transport and telecommunications connections with other national gateways
- efficient and cost effective water services and waste management infrastructure
- concentrating employment intensive activities close to public transport corridors and road transport intensive activities close to the strategic road network
- continuing investment in and development of Dublin's ability to innovate in education, research and development through its third level educational institutions and effective linkages with industry
- maintaining the distinction between the city and town components within the Greater Dublin Area as envisaged by the Strategic Planning Guidelines for the area, which focus on the metropolitan area, the hinterland and a number of other strategically placed towns as primary or secondary development centres within the hinterland
- protecting Dublin's outstanding natural setting – Dublin Bay, the Dublin and Wicklow Mountains, surrounding rural hinterlands, river valleys like the Boyne and Liffey, and physical amenities such as parks
- investing in the quality of life attractions of the city and its surrounding centres, particularly in terms of education at primary and secondary level, healthcare, childcare, cultural and entertainment facilities
- eliminating areas of social deprivation and ensuring integrated development of areas in the future.

In a wider context, the spatial considerations for the areas adjoining and beyond the GDA have suggested the following responses.

Recognising the potential and scale of the urban centres in Dundalk, Newry and Drogheda, there is a case for further strengthening the central portion of the Dublin-Belfast corridor in order to give that corridor greater economic integrity.

To this end, Dundalk, with its increasing size and scale of activities, has the capacity to develop as a gateway within the Dublin-Belfast corridor. This gateway will also support a wider border area extending westwards from Dundalk. Developing Dundalk as a gateway would utilise its strategic location between Dublin and Belfast to underpin cross-border co-operation, particularly with neighbouring Newry.

Building up the transport and business links between Dundalk and Newry would offer a scale of development and critical mass that can help drive development throughout the eastern part of the border region.

The future role of towns such as Navan, Naas and Wicklow needs to take account not just of their relationship with Dublin, but also their function in the development and servicing of their own catchment areas and their relationship with other adjoining regions. Achieving the objectives of the NSS for balanced regional development means developing new gateways and hubs at strategic locations in other regions. This has implications for decisions on the ultimate size of towns in the Greater Dublin Area.

While Drogheda is an inherent part of the Border region its development is strongly influenced by its relative proximity to Dublin. In seeking to develop the potential future role of Drogheda, therefore, account must also be taken of

- Drogheda's relationship with its own catchment
- its role within the Border region
- its role as a significant port
- its role in the spatial development of the Greater Dublin Area having regard to the town's close functional and physical links with the area.

Housing pressures in the Greater Dublin Area and the improvements in the road and rail network radiating from Dublin, have encouraged extensive commuter based development at some considerable distance from the Greater Dublin Area. As a by-product of unbalanced spatial development, this long distance commuter based development is generally unsustainable. Building up critical mass in other regions, to complement Dublin is central to countering this trend.

In the southern and eastern parts of the Midlands adjacent to the Greater Dublin Area there are a number of strong county towns that are experiencing extensive commuter-based development e.g. Portlaoise and Carlow. These towns must be developed in terms of their economic self-sufficiency to minimise the need for commuting and support the development of surrounding areas. To do this they need to sustain a good employment base and a wide range of shopping facilities and social infrastructure.

3.3.2 Strengthening the South, South East, West and North West

To emulate the economic success achieved in Dublin, Ireland needs to **strengthen** the dynamic, emerging critical mass of the existing gateways in the South East, South and West and develop gateways at other strategic locations. This will allow substantial new investment to be generated in and attracted to the regions and will complement the successful national spatial role of Dublin.

All of the gateways outside Dublin — existing and new — will have to grow by a considerable factor to do this. Some centres are at a greater level of preparedness for this than others.

Of the regional cities, Cork has the most immediate potential to be developed to the national level scale required to complement Dublin. The Cork Area Strategic Plan (CASP) sets a positive agenda for proceeding in this direction, given the emphasis in it on enhancing Cork's capabilities as a metropolitan, business friendly, public transport based and physically attractive city.

In the Mid-West, Limerick/Shannon needs to be strengthened — within the terms of the Land Use and Transportation Strategy now being developed. This will provide a platform for capitalising on the strategic location of this gateway, where a number of road and rail transport corridors converge, there is an international airport at Shannon and ports in the Shannon estuary.

Another of the existing designated gateways, Galway, also needs to be strengthened further on the basis of the Land Use and Transportation Strategy now being developed for the city.

In the South East, there is substantial potential for the enhancement of critical mass through the further expansion of the existing designated gateway of Waterford, including the port at Belview. This could be supported by improved connections from Waterford to towns in the surrounding counties and from Waterford to cities such as Dublin, Cork and Limerick. This points to the potential, over the life of the NSS, to further strengthen the position of Waterford in support of its role as a strong driver of regional development.

However, not even Cork, the largest of the existing gateways, will approach the scale of development and critical mass of the Dublin area for the foreseeable future. The critical mass of the Dublin area is reinforced by its transport connections to surrounding areas and centres. A strategic approach to achieving similar critical mass, based on the complementary attractions of cities that are relatively close to each other, is required to emulate the scale and critical mass of the Dublin area.

Limerick and Cork are 100 kilometres apart. Between them, these cities and their associated regions could have a future population of almost 700,000, two universities, access to two international airports and port facilities and a large range of world-class employers. Actual travel time and reliability are more important than distance. Therefore, the ability to travel between Cork and Limerick in about an hour by road or rail would result in both centres being seen to have shared strengths in their attractiveness for investment and enterprise. For this sharing of strengths to become real, greater emphasis will have to be placed on improving journey times and journey time reliability between Cork and Limerick in terms of the roads and public transport networks. However improving physical connections is not enough. Both areas will need to plan and act in a complementary way.

Similarly if roads and public transport connections between Waterford and Cork and between Limerick/Shannon and Galway were appropriately enhanced, the attractions of each gateway could also be seen in an increasingly shared sense. In time this could also provide a basis for the improvement of onward connections, through road and public transport networks, to Sligo and Derry and other points in between.

Building on the complementary strengths of Cork and Limerick/Shannon and adding to this the strengths of Galway and Waterford, would further enhance the critical mass of these four cities and their hinterlands. Between them, they could have a combined population of over 1,000,000 people in the longer term. Looked at in combination, these cities would be supported by international airports, three Universities, the Waterford Institute of Technology and other third level institutions, giving them greater national and international capacity and supporting their potential for development.

The best prospects for establishing critical mass of the type and scale capable of competing with that of the Greater Dublin Area point to developing Cork, Galway, Limerick/Shannon and Waterford as an increasingly inter-connected and developed network of co-operating and complementary cities. Models for activating such multi-centred or polycentric development approaches are evolving in other countries in Europe. (A Danish example showing how this type of co-operative approaches works is outlined in Appendix IV).

Complementing the economic performance of Dublin and the East in a national context will therefore depend on

- expanding the critical mass of individual cities
- combining the powers of attraction of these cities, particularly by enhancing the performance of physical connections between them.

Additional gateways, particularly in the West and North West, where the urban structure is weakest, must be developed. In identifying new gateways, a number of key factors must be taken into account including strategic location, capacity for substantial development, an existing business and innovation dynamic and existing or potential transport linkages.

Critical mass in the West and North West can be strengthened by developing Sligo as a gateway to capitalise on its strategic location and energise its associated hinterland. Building up the national role and scale of Sligo will require, as a first step, the development of a planning, land use and transportation framework. This will provide a focus around which local authorities, business and community interests can reach consensus on the future development of Sligo and utilise its substantial physical capacity for development, while safeguarding its outstanding natural setting.

Further north there is a strong dynamic at present in the relationship between Letterkenny and Derry. Shaping our Future, the Regional Development Strategy for Northern Ireland, which was adopted by the Northern Ireland Assembly, identifies Derry as a major regional city for the North West, including Donegal. The development of Letterkenny/Derry as a linked gateway will enhance this relationship and strengthen the North West. Letterkenny will be further developed in association with Derry in a way that ensures both continue to be effectively linked, have complementary strengths and, in essence, work together as a gateway for the North West.

The links and interactions between the existing and new gateways mentioned and the process of energising areas associated with these gateways, will be complemented and strengthened further by the development of certain medium-sized towns as hubs. These hubs are Mallow, strategically located between Cork and Limerick, Ennis between Limerick and Galway and Tuam to the north of Galway. Each of these towns is well positioned to act as a strong market and service centre for an extensive rural hinterland while interacting with its neighbouring gateway. The improvement of physical and other connections between the gateways and hubs will ensure that the capabilities and critical mass of the gateways can be used more effectively to the benefit of the gateway itself, the hub and other towns and related villages and rural areas.

3.3.3 Reinforcing Central Parts of Ireland and the South East

The existing critical mass on the east coast and the strengthening critical mass in the South East, South, West and North West of the country present a spatial challenge, but also a strategic opportunity for the Midlands and parts of the South East. Historically, competition between towns in the Midlands allied to their relatively small size, has fragmented critical mass and thereby reduced the powers of attraction or 'pull' factors of the region. As other cities in the country continue to grow, the critical mass of the Midlands and its pull factors will need **reinforcement** to support indigenous growth and attract investment.

East-West connections are being substantially upgraded under the NDP. There are a number of strategically placed, medium and similar sized towns in this region, which have significant attractions for investment. These attractions include the Institute of Technology in Athlone, the major hospitals in Ballinasloe, Tullamore, Mullingar and Portlaoise and the location on strategic transport corridors of Athlone and Portlaoise.

The strategic approach of the NSS is to improve access to the wide range of attractions in the Midlands so that through the integrated network of towns it will possess the advantages of a dynamic region containing a large city. This will be achieved by the development of Athlone, Mullingar and Tullamore as a linked gateway using their complementary capabilities. To ensure the effectiveness of this new gateway in energising the Midlands, north-south transport links within the region must be strengthened to complement east-west links.

Further south, there are clear economic and other relationships within the South East. Kilkenny has a potential role in conjunction with Waterford City, indicated by the deepening economic relationship between south Kilkenny and Waterford City. Kilkenny has developed highly successful tourism, based on the built heritage of the city, the heritage and scenic attractiveness of other towns and rural parts of the county and improved accessibility to Dublin. These environmental and heritage resources, plus tourism success and the general quality of life in Kilkenny, are yielding dividends in terms of attracting investment.

Wexford too, with its cultural and built heritage, has a pivotal role in the South East, in conjunction with Waterford City, given its importance for its own hinterland and its relationship with Rosslare Port.

Factors such as

- the proposed development of the Waterford to Dublin national primary road under the National Development Plan,
- the N25 connecting Wexford to Cork through Waterford,
- the port facilities at Rosslare, Belview and New Ross,

present an opportunity to promote both Wexford and Kilkenny as hubs, in conjunction with the existing gateway at Waterford. The growth of a Waterford/Wexford/Kilkenny triangle of strength needs to be supported by a co-ordinated and integrated approach that builds on their complementary strengths. Other towns in the South East and in the southern part of the Midlands, with their additional capabilities, also have a role to play.

3.3.4 Revitalisation in the West and South West

The research carried out for the NSS into rural and urban trends and economic performance has identified certain areas — primarily along the coast in parts of Cork, Kerry, Clare and Galway — that have been experiencing economic growth and **revitalisation** based on the diversification of an economy previously centred on agriculture. The new growth is linked to the recognition and development of economic potential based on tourism, marine and natural resources and certain types of enterprise development. This is derived ultimately from outstanding natural settings and a quality of life that attracts people with a variety of skills. Certain medium sized towns are playing a particularly important role in attracting people and enterprise to these areas.

This is a process that can be harnessed further in the areas already diversifying and extended to other areas in Mayo, Sligo, Leitrim and Donegal. The critical factor is underpinning the sustainable development of strategically placed medium-sized towns to reinforce dynamic rural economies. These economies will be based on the sustainable use of natural resources such as scenic landscapes for tourism, the sea for fisheries and marine–based aquaculture, the land for agriculture, forestry, inland aquaculture (in rivers and lakes) and renewable energy. Appropriate investment in enterprise and local services will also be required to sustain these economies.

To support the **revitalisation** of areas in the South West, Tralee and Killarney will act as linked hubs. This will capitalise on the combined capacities of both towns, such as those in third-level education, developing links between industry and centres of learning, surface and air transport links and key natural resources such as scenic landscape.

In a similar way, Castlebar and Ballina will act as linked hubs based on their strategic location, the large area that they serve and their relative proximity to Galway and Sligo. Attributes such as the Galway-Mayo Institute of Technology, road and rail infrastructure, access through Knock Airport and a tourism resource based on landscape, natural wilderness, the islands and angling will support this role.

For the linked hubs to function effectively, improved local linkages will be required through road network and bus-based public transport options, improved energy, and telecommunications and all co-ordinated through the integrated planning frameworks discussed in more detail in Section 6.

The process of revitalisation in parts of the South and West coastal areas is supported by the successful development of a number of relatively small towns. Associated with these towns is a growing tourism sector, a lively and attractive small town environment and spin-off employment creation in other enterprises and local services. This process is particularly evident in and around towns such as Clonakilty, Kenmare, Dingle, Clifden and Westport. A factor common to these and similar towns is that their small scale, combined with their attractiveness and setting, has been central to their promotion and development.

To protect the economic vitality of such towns into the future, to their own benefit and that of the wider areas around them, it will be essential to sensitively balance future development options against the need to maintain those attributes that made these towns attractive in the first place. Achieving this balance will be particularly important in the case of residential development, including second homes, retail development and the treatment of their environs, setting and approaches.

3.3.5 Co-operating in an All–Island Context

In the past, the border areas have often been perceived to be 'peripheral'. However, within an all-island economic and spatial perspective, a different view emerges of the potential of such areas and how **co-operation** across political boundaries can help to realise this potential.

In border areas, and in a developing all-island economy, there is a renewed emphasis on co-operation for economic advantage between the State and Northern Ireland across a range of activities. The Dublin-Belfast Corridor and the Letterkenny/Derry gateway present two opportunities for large-scale co-operation. Proposals in respect of these have been set out earlier.

With changing circumstances, advantage can also be derived from viewing the central part of the border area as a 'crossroads' between Dublin, Belfast, Derry, the Midlands and other strategic locations such as Sligo. Given its position on the N2 strategic road corridor, its position vis-a-vis towns in Northern Ireland whose cross-border links are strengthening, and opportunities for cross-border tourism, there is a particular role for Monaghan as a hub. This role will complement that of Dundalk as a gateway and will capitalise on Monaghan's midway position on the Dublin-Derry N2 route and its substantial capacity for development.

Cavan will also act as a hub given its central location in the border area, its position on the N3 corridor, its strategic position vis-a-vis a large surrounding mainly rural hinterland and the development dynamic it has sustained in recent years. Cavan's role as a hub will build on its performance as a strategically placed county town as well as its energising role for its wider rural hinterland.

The positions of Dundalk as a gateway, with Monaghan and Cavan as hubs, within the central and eastern parts of the border, close to other towns in Northern Ireland with which economic and transport links are strengthening, will energise the potential arising from increased cross-border **co-operation.** Together these towns will drive the development of the central and eastern parts of the border area in sectors including enterprise, tourism and food as well as encouraging potential new cross-border linkages such as inland waterways.

Cross boundary co-operation in other areas, notably in the South East, arises from the need for effective transportation links to trading partners in the UK, the European Union and world wide. This points to a strategic role for ports along the south-east coast that are connected to the rest of Ireland's transport grid in the form of an enhanced strategic transport corridor. Strengthening the southern sea corridor to the UK and mainland Europe is discussed in Sections 3.4 and 3.5. For the South East, a strengthened southern sea corridor through Wales to the UK Channel ports would present economic opportunities for co-operation, with South Wales in particular, that could include tourism initiatives based on shared elements of historical heritage for example.

3.4 Gateways and Hubs – Overall Approach to Identification

This Strategy addresses the contrast between rapid development in the east of the country and slower rates of development in other regions. To redress this imbalance, the Strategy identifies gateways and hubs that have the capacity to support the stronger urban-rural structure needed to drive the development of these other regions.

To promote the strong urban-rural structure needed in the rest of the country to complement development in the east, this Strategy builds on the strengths of the existing gateways within a network of strong cities and towns and their associated hinterlands. Building on these existing strengths, and the need to redress the weaker urban structure to the West and North West, led to the conclusion that a range of gateways and hubs on an arc reaching from Waterford to Derry must become a primary driver of more balanced regional development.

Some of the current characteristics of the new gateways and hubs identified to play key roles in achieving balanced regional development under this Strategy are summarised in Appendix V.

3.4.1 Gateways and Hubs – Population Implications

The development of the gateways as national and regional engines of growth and the complementary role of hubs will establish a spatial structure capable over time of changing the development trends described in Section 2.

To assist the local authorities responsible for forward strategic planning in relation to gateways and hubs, the following paragraphs outline possible population scenarios to be taken into account in the exercise of these planning functions. The scenarios take account of the different bases for growth from which the gateways and hubs are starting. On-going monitoring of current population and development trends by regional and local authorities will be needed to provide the basis for more detailed regional and local planning which responds to the pace at which population growth and development is likely to take place over the short to medium term.

Gateways

The following table shows the population of each existing gateway and its surrounding catchment in 1996. The table also gives an estimate of these populations in 2002 based on the preliminary census report and shows possible populations for 2020, under both the current demographic trends and economic growth scenarios from which the population projections set out in Section 2 were derived.

Gateway and surrounding catchment	1996 Population	2002 Population	2020 Population Current Trends	2020 Population Economic Growth
GDA	1.4 million	1.535 million[11]	1.938 million	2.2 million
Cork[12]	325,000	350,000	360,000	454,000
Limerick	214,000	236,000	260,000	284,000
Galway	127,000	146,000	181,000	192,000
Waterford	111,000	119,000	138,000	164,000

11 Actual result based on preliminary report of 2002 census.
12 Figures for Cork, Limerick, Galway and Waterford relate to city and surrounding catchments as defined in local land use and transport strategies and are therefore greater than figures for cities and suburbs alone. These catchments were defined as areas within which significant numbers of persons journeyed to the city in question for work from surrounding areas. In the cases of Cork, Limerick and Galway, the catchments include Mallow, Ennis and Tuam respectively.

In relation to the new gateways

- Letterkenny and its environs had a population of around 12,000 persons in 1996 which rose to an estimated 14,100 in 2002. Derry's population in 2001 was estimated at 85,000 persons.
- Sligo and its environs had a population of 18,509 in 1996 which rose to an estimated 19,400 persons in 2002.
- Dundalk and its environs had a population of 30,200 persons in 1996 which rose to an estimated 32,300 persons in 2002.
- Athlone, Mullingar and Tullamore and their environs, had populations in 1996 of 15,500, 12,500 and 10,000 respectively in 1996. These rose to an estimated 16,400, 15,500 and 11,100 persons in 2002, giving them a combined current population of 43,000 persons.

Taking account of the differing present populations of the new gateways and differing local circumstances, e.g. location and population of surrounding areas, these new gateways will grow at different rates and to different levels depending on the population and economic base they are working from.

Given the existing and potential performance and growth of the existing gateways as drivers of development in their regions and in the national economy, it is clear the new gateways identified in the NSS will also need to grow substantially if they are to play a similar role. In essence, the new gateways over the years to 2020 and beyond need to grow to the current population levels of cities such as Waterford or Galway.

Hubs

The hubs identified in this Strategy differ substantially in terms of their current size, location and development context. Some are strong county towns, others are large towns closely linked to nearby gateways. Taking into account the differing present populations of the hubs as well as differing local circumstances, the hubs will also grow at different rates and to different levels depending on their present population and their wider spatial context.

Present Populations

- The populations of Ballina and Castlebar were 8,800 and 8,500 respectively in 1996 rising to an estimated 9,300 and 10,100 persons respectively in 2002
- The population of Cavan was around 5,600 in 1996 rising to an estimated 6,000 in 2002
- The population of Ennis was 17,700 in 1996 rising to an estimated 21,800 in 2002
- The population of Kilkenny was 18,700 in 1996 rising to an estimated 20,600 in 2002
- The population of Mallow was 7,800 in 1996 rising to an estimated 9,800 persons in 2002. The Cork Area Strategic Plan envisages a population of around 17,000 for Mallow by 2016
- The population of Monaghan was around 5,800 in 1996 rising to an estimated 7,000 persons in 2002
- The populations of Tralee and Killarney were around 20,000 and 12,000 respectively in 1996, rising to an estimated 25,800 and 16,000 respectively in 2002
- The population of Tuam was around 5,600 in 1996 rising to an estimated 7,200 in 2002. The draft Galway Planning and Transportation Study envisages a population In Tuam of up to 13,000 by 2016
- The population of Wexford was around 15,900 persons in 1996 rising to an estimated 20,000 persons in 2002.

In terms of their current populations, the hubs fall into two broad categories

- Towns with a population considerably less than 10,000, i.e Cavan, Monaghan and Tuam
- Towns with a population close to 10,000 ranging up to 25,000, as is the case with the other hubs.

Looking to the period to 2020 and beyond the hubs will need to grow substantially. The size of the hubs as they grow, will, however, vary by virtue of the population base they start from in 2002, their potential for development and their spatial context. To act in their roles as hubs and taking account of local circumstances, towns which are as of now substantially below 10,000 would need to grow to a population range of 15,000 – 20,000 persons in the years to 2020 and beyond. Hubs or linked hubs already at or above 10,000 would need to grow to a population of 30,000 persons or more in the years to 2020 and beyond.

It should be noted that the suggested population levels for gateways and hubs are indications of the levels to which these will need to grow to fulfil the functions envisaged for them under this Strategy. The rate at which growth can actually take place will vary depending on a wide range of factors relating to economic and population growth and local circumstances. The indicative population levels will not necessarily be attained therefore in the period up to 2020 covered by this Strategy and may not happen for a considerable period after that.

In terms of the future growth in the population of gateways and hubs and ongoing development requirements, it will be vital that the provision of key services is linked to current development trends. However, it will also be necessary to ensure that appropriate local strategies are in place to take account of the ultimate population horizons for the gateways and hubs.

3.5 Spatial Policies for Rural Areas

Under the 1999 White Paper on Rural Development, the Government is committed to 'ensuring the economic and social well-being of rural communities, by providing the conditions for a meaningful and fulfilling life for all people living in rural areas'.[13]

As acknowledged in the White Paper, urban and rural areas are intrinsically interdependent due to complex flows of people and services and the growing international trend of cities and towns in or near more rural parts of a country playing important roles in the development of rural areas. It follows that the strong, spatially balanced urban structure described in the previous section, must now be matched by specific strategies for rural areas and strengthened rural communities.

This Strategy sets out in broad terms how rural areas will support and drive the attainment of more balanced regional development. This will assist the development of strategies complementary to the NSS at regional and local level.

There are two aspects to this

- defining important policy areas
- identifying different types of rural areas and the need for differing responses appropriate to local circumstances.

3.5.1 Strengthening the Rural Economy

Traditional rural based sectors of employment in agriculture, forestry and fishing will continue to have key roles as a base for strong and diversified rural economies. Efficient agricultural, marine and natural resource sectors, together with significant and developing sectors such as tourism, enterprise, local services and other sources of off-farm employment, will be the mainstays of a strong rural economy. However the mix and concentration in any one of these sectors will vary according to the potential of different places. This calls for tailored responses to the particular issues in various types of places.

---

13 *Ensuring the Future — A Strategy for Rural Development in Ireland: A White Paper on Rural Development* (Department of Agriculture, Food and Rural Development, August 1999), p. vi.

It will be necessary to

Secure agriculture, where it has the capacity to remain strong and viable, by maintaining the maximum possible number of family farms, while at the same time ensuring that smaller farmers have the opportunity to supplement their farm income through off-farm work.

Diversify rural employment options and stabilise population through
– *resource based development* in sectors such as forestry, marine and natural resources, enterprise and local services
– *tourism development* through quality market-responsive products, enhanced access and co-ordinated promotion of a tourism product, which offers a range of complementary visitor experiences
– *protecting* landscape, water resources and habitats.

Rural areas with particular *cultural identities,* associated for instance with language as in the case of the Gaeltacht, or the islands and other areas of significant cultural heritage, can act as magnets for people and for certain types and levels of investment. These cultural identities can make a significant contribution therefore to underpinning the rural economy, stabilising populations and strengthening communities. Conservation of identity needs to be considered in ways that allow development to take place, while at the same time protecting the area's heritage resources. The Department of Community, Rural and Gaeltacht Affairs, in conjunction with Údarás Na Gaeltachta, the Western Development Commission and local authorities will continue to play an important role in strengthening infrastructure and promoting enterprise in Gaeltacht areas.

3.5.2 Strengthening Communities

In 1996, 42% of the State's population resided in rural areas i.e. outside urban areas of 1,500 or more people. The proportion of people living in rural areas has been declining, particularly where agriculturally based employment is contracting and where critical mass is too weak to attract or support alternative sources of employment. The strength and integrity of many rural communities is under stress as a result. New approaches to underpin the future vitality of rural communities are essential.

If Ireland is to retain a substantial proportion of its population in rural areas, vibrant, living communities and the services they require will need to be supported. Ways have to be sought in which these communities can be secured and strengthened. Two main types of responses are proposed.

Settlement policies are needed that take into account varying rural development contexts. Policies are needed for areas with declining populations as well as policies to deal with areas in which there are overspill issues associated with proximity to urban centres. Additional guidance on this issue is set out in Section 5.3.

Enhanced accessibility must be linked with integrated settlement policy to revitalise rural communities.

3.5.3 Strengthening Environmental Qualities

Rural areas contain some of the most important national resources in terms of the natural environment and landscape as well as highly important elements of natural heritage. The sensitive development and conservation of these resources and heritage is essential to the underpinning of strengthened rural economies and the national economy itself. The resources include:
- *agricultural land* for high quality food production
- *water resources* of high quality, in rivers and lakes, in groundwater and off shore
- *forestry,* which yields economically valuable timber and timber products, and which also makes a contribution to reducing global warming
- a world-renowned *landscape,* the attractiveness and integrity of which are central to Ireland's tourism industry.

3.5.4 Types of Rural Areas

Box 3.1 describes five broad rural area types and suggests a range of policy responses to be developed in more detail at regional and local levels. See also Figure 3.1 which illustrates indicatively the location of the five area types.

Policy responses for rural areas in relation to housing, economic development and the environment are set out in Section 5.
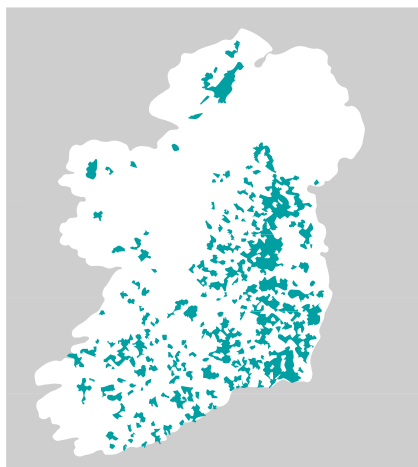
The State's response to the process of economic restructuring in rural areas is multi-faceted. It embraces investment programmes such as the NDP, as well as specific, targeted mechanisms to promote development or encourage investment, such as the CLAR programme and the Upper Shannon Renewal Scheme.

Given the multi-faceted nature of the State's response to rural restructuring, local authorities and local development agencies need to develop spatial frameworks for rural areas, which allow for targeting to ensure that the range of development programmes available are co-ordinated to maximise benefits. Examples of these programmes include urban and village renewal schemes, water services infrastructure programmes and measures to strengthen the tourism sector. Focusing and co-ordinating these different programmes will increase the resulting benefits.
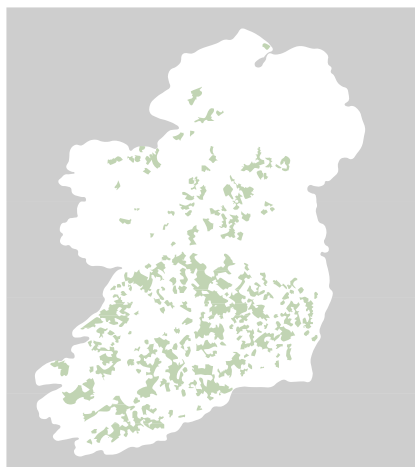
Box 3.1 Rural Area Types and Policy Responses

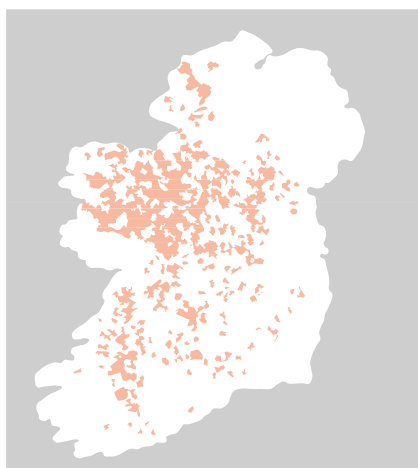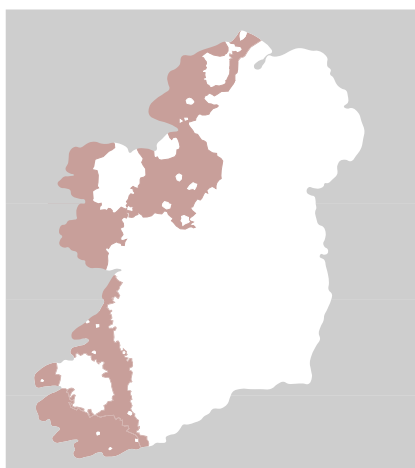| Rural Area Type and Description	Rural Area Policy Responses
(1) Areas that are Strong *Mainly in the South and East where agriculture will remain strong, but where pressure for development is high and some rural settlements are under stress.*	• Support agriculture by maintaining the integrity of viable farming areas. • Strengthen rural villages and small towns by making them attractive to residential and employment-related development. • Reduce urban sprawl through a renewed emphasis on appropriate in-fill development.
(2) Areas that are Changing *Including many parts of the Midlands, the Border, the South and West where population and agricultural employment have started to decline and where replacement employment is required.*	• Support communities where the viability of agriculture is under stress through promoting diversification in enterprise, local services and tourism.
(3) Areas that are Weak *Including more western parts of the Midlands, certain parts of the Border and mainly inland areas in the West, where population decline has been significant.*	• Build up rural communities through spatially targeted and integrated measures. • Develop new rural tourism resources such as inland waterways.
(4) Areas that are Remote *Including parts of the west coast and the islands.*	• Promote marine and natural resource based development. • Overcome distance barriers with the support of technology.
(5) Areas that are Culturally Distinct *Including parts of the west coast and the Gaeltacht which have a distinctive cultural heritage.*	• Enhance accessibility. • Strengthen existing settlements. • Conserve cultural identity.

Figure 3.1 Rural Area Types

1. Areas that are Strong
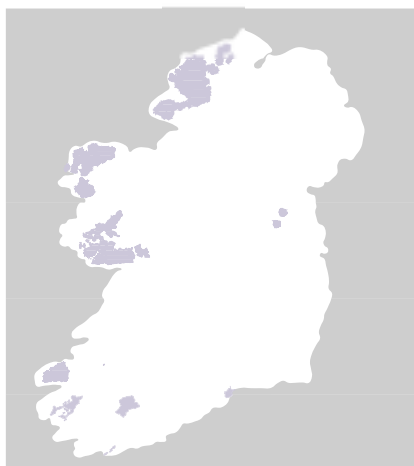

2. Areas that are Changing

3. Areas that are Weak

4. Areas that are Remote

5. Areas that are Culturally Distinctive

3.6 Summary of Strategic National Roles

The strategic roles which cities, towns, villages, communities and rural areas will have in delivering a more spatially balanced Ireland can be summarised as follows

- *consolidating* the Greater Dublin Area
- *strengthening* the South, South East, West and North West to complement Dublin
- *revitalising* the West and South West
- *reinforcing* central parts of Ireland and the South East
- *co-operating* in an all-island context.

Box 3.2 Consolidating: Key Considerations

- Effective integration of land use and transportation policy within the spatial structure of the Greater Dublin Area.
- Facilitating the national roles of Dublin Airport and Dublin Port.
- Supporting the city region's capacity for innovation.
- Facilitating ease of movement of people and goods within the Greater Dublin Area.
- Maintaining a high quality environment within the area.
- Clarifying the role of other urban areas within and at or near the edges of the Greater Dublin Area.

Box 3.3 Strengthening: Key Considerations

- Implementation of the planning, land-use and transportation strategy which has been adopted for the development of the designated gateway, Cork.
- Preparation, adoption and implementation of appropriate strategies for the other three designated gateways, Galway, Limerick and Waterford.
- Exploiting opportunities for the Cork, Galway, Limerick and Waterford gateways to be better linked to act together to provide a critical mass that balances that of Dublin.
- Sligo and Letterkenny/Derry acting as gateways.
- Mallow, Ennis and Tuam acting as hubs in association with Cork, Limerick and Galway respectively.

Box 3.4 Revitalising: Key Considerations

- Exploiting opportunities to realise the potential of medium-sized towns as hubs, i.e. Tralee/Killarney and Castlebar/Ballina.
- Improvement of transportation, communication and energy links to the rest of the country, especially to and from nearby gateways.
- Enhancing access to social and other services and improving quality of life.
- Establishing a spatial framework for the development and conservation of key marine and natural resources that underpin economic and quality of life attractions.

Box 3.5 Reinforcing: Key Considerations

- Creation of the critical mass necessary to enhance the powers of attraction of the Midlands linked gateway (Athlone-Mullingar-Tullamore).
- Improved collaboration and joint promotion of towns.
- Capitalising on the advantages of the Midlands in terms of its central location.

Box 3.6 Co-operating: Key Considerations

- Supporting the development of the all-island economic and spatial context by improved north-south interaction, with towns such as Dundalk, Cavan, Monaghan, Sligo and Letterkenny performing enhanced spatial roles to deliver this.
- Capitalising on the emerging role of central parts of the border area as a 'crossroads' between centres of strength north and south of the border.
- Shared environmental and cultural heritage, such as landscape and inland waterways, with potential to support economic development in sectors such as tourism.

Maps 1 and 2 show the location of the gateways and hubs. They illustrate the relationships between the gateways and hubs and the strategic spatial roles mentioned. Identifying the strategic spatial roles of various parts of the country has the added value of

(1) underlining the spatial aims that areas share in regional policy terms
(2) illustrating how different urban and rural parts of the country will relate to particular centres of strength and critical mass.

The above boxes summarise key considerations in spatial policy as they apply to the different strategic spatial roles.

3.7 Key Infrastructure

Achieving spatial balance by developing the potential of areas will depend on enhancing capacity for the movement of people, goods, energy and information between different places. Improvements in terms of time and cost, can reduce the disadvantages of distance.

Physical networks of infrastructure such as roads, public transport, energy and communications are of particular relevance to the NSS, since they themselves have a spatial impact and also influence the location, timing and extent of development.

Other economic infrastructure, such as water services and waste, and social infrastructure, such as schools and hospitals, relate to particular locations and are also needed to support balanced regional development. Waste management is a particular current priority. Efficient, effective and cost competitive waste management facilities are essential if industrial and enterprise activity is to thrive and develop in a balanced way across Ireland.

A feature of the most mature and successful economies is that they possess highly developed, well-integrated infrastructure that supports movement, i.e. public and private transport, and energy and communications networks. This infrastructure converges at strategic points to drive dynamic and sustainable development.

Map 1 Gateways

Strategic Spatial Roles

- Revitalising
- Strengthening
- Reinforcing
- Consolidating
- Co-operating

Derry

Letterkenny

Belfast

Sligo

Dundalk

Mullingar

Athlone

Tullamore

Dublin

Galway

Limerick
/Shannon

Waterford

Cork

- Existing Gateway
- New Gateway
- Area covered by the Northern Ireland Regional Development Strategy

Map 2 Gateways & Hubs

Gateways

Hubs

Linked Gateway / Hub

Derry — Major Interregional Role in Northern Ireland

Area covered by the Northern Ireland Regional Development Strategy

Letterkenny

Derry

Larne

Belfast

Enniskillen

Sligo

Monaghan

Newry

Ballina

Cavan

Dundalk

Castlebar

Mullingar

Tuam

Athlone

Galway

Tullamore

Dublin

Ennis

Limerick /Shannon

Kilkenny

Wexford

Tralee

Killarney

Mallow

Waterford

Cork

Strategic Spatial Roles

Revitalising

Strengthening

Reinforcing

Consolidating

Co-operating

However, these integrated networks of transport, energy and communications have developed gradually over time. The objective for Ireland is to build on the substantial progress already made and establish frameworks for the development of enhanced transport, energy and communications networks over the next twenty years, bearing in mind that these networks will be serving the country over the decades beyond 2020. These frameworks should remain responsive to the changing geography of Ireland in developmental terms. In the case of transport, this can be assisted by, for example, retaining alignments, such as disused rail lines, for possible future use. It can also be supported by keeping open for consideration, strategic investments warranted by new development patterns, population growth and other national considerations.

Prevailing macro-economic and budgetary conditions will influence the rate at which progress is made in delivering these networks. Strategic planning and co-ordination of both state and private sector infrastructure will be essential to underpin the effectiveness of any initiatives to deliver elements of the different networks. These considerations apply to national programmes, the plans of individual state agencies and those of the private sector.

Networks of physical infrastructure have three key elements

- transport – including roads, public transport (rail and bus), air and sea
- energy – including electricity and gas transmission/distribution
- communications – including broadband access and telecommunications generally.

3.7.1 Transport

To support balanced regional development, Ireland's transport networks must

- build on Ireland's radial transport system of main roads and rail lines connecting Dublin to other regions, by developing an improved mesh or network of roads and public transport services
- ensure, through building up the capacity and effectiveness of Ireland's public transport networks, that increases in energy demand and emissions of CO_2 arising from the demand for movement are minimised
- allow internal transport networks to enhance international access to all parts of the country, by facilitating effective interchange possibilities between the national transport network and international airports and sea ports.
- address congestion in major urban areas by increasing the use of public transport.

Decisions on land use and development must take account of the existing public transport networks or support the emergence and development of new or augmented networks.

In summary, Ireland's future transport network can be viewed in terms of

- **strategic *radial* corridors**
- **strategic *linking* corridors**
- **strategic *international* access points.**

Map 3 illustrates the corridors and access points described below. It is important to emphasise that these corridors and their descriptions are strategic and conceptual in character. The details of infrastructure development will flow from sectoral strategies guided by the provisions of the NSS.

Strategic Radial Corridors

Corridor to the North – good quality road and public transport connections between Dublin and Belfast and international access through ports and airports, and onwards to other parts of the island through the corridors listed below.

Corridor to the South West – good quality road and public transport connections between Dublin and Cork, improved road access to Cork Port and Airport.

Corridor to the Mid West – good quality road and public transport connections between Dublin and Limerick (including access to Shannon Airport) and to the Shannon Estuary Ports.

Corridors to the North West (x2) – good quality road and public transport connections between Dublin and Derry, Letterkenny and the North West and improved rail services between Dublin and Derry (via the Dublin-Belfast line).

Corridors to the West (x3) – good quality road and public transport connections between Dublin, Galway, Mayo and Sligo.

Corridors to the South East (x2) – good quality road and public transport connections between Dublin and the South East, including Waterford City as gateway for the region.

Linking Corridors

Western Corridor – providing for improved road and Dublin transport connections between gateways and hubs from Cork to Derry (via Limerick, Galway and Sligo) and particularly between Cork and Galway (via Limerick).

Southern and South Eastern International Access – providing international access by sea and air for gateways and hubs and other areas along the western arc. This includes utilising Shannon Airport, Cork Airport, the Shannon Estuary, Southern and South Eastern Ports combined with good quality access to these ports and airports by appropriate road and public transport links.

North Western International Access – providing road access internationally to and from gateways, hubs and other areas in the vicinity of the Border.

Central Spine – linking the east/west radial transport corridors by road and bus-based public transport through the Midlands, on a north/south axis through Dundalk, Athlone/Mullingar/Tullamore, Portlaoise to Rosslare. This will offer more direct access to ports such as Drogheda, Belview and Rosslare. It will also enhance connections between gateways and different regions reducing the necessity for transit through Dublin (e.g. the journey by road from Belfast to Cork). It will also improve connections between urban centres in the Midlands and facilitate the combining of their strengths.

Map 3 indicates how Ireland's spatial structure, including the gateways and hubs, will be supported by the strategic transport framework. The gateways and hubs are located at strategic points in the transportation framework.
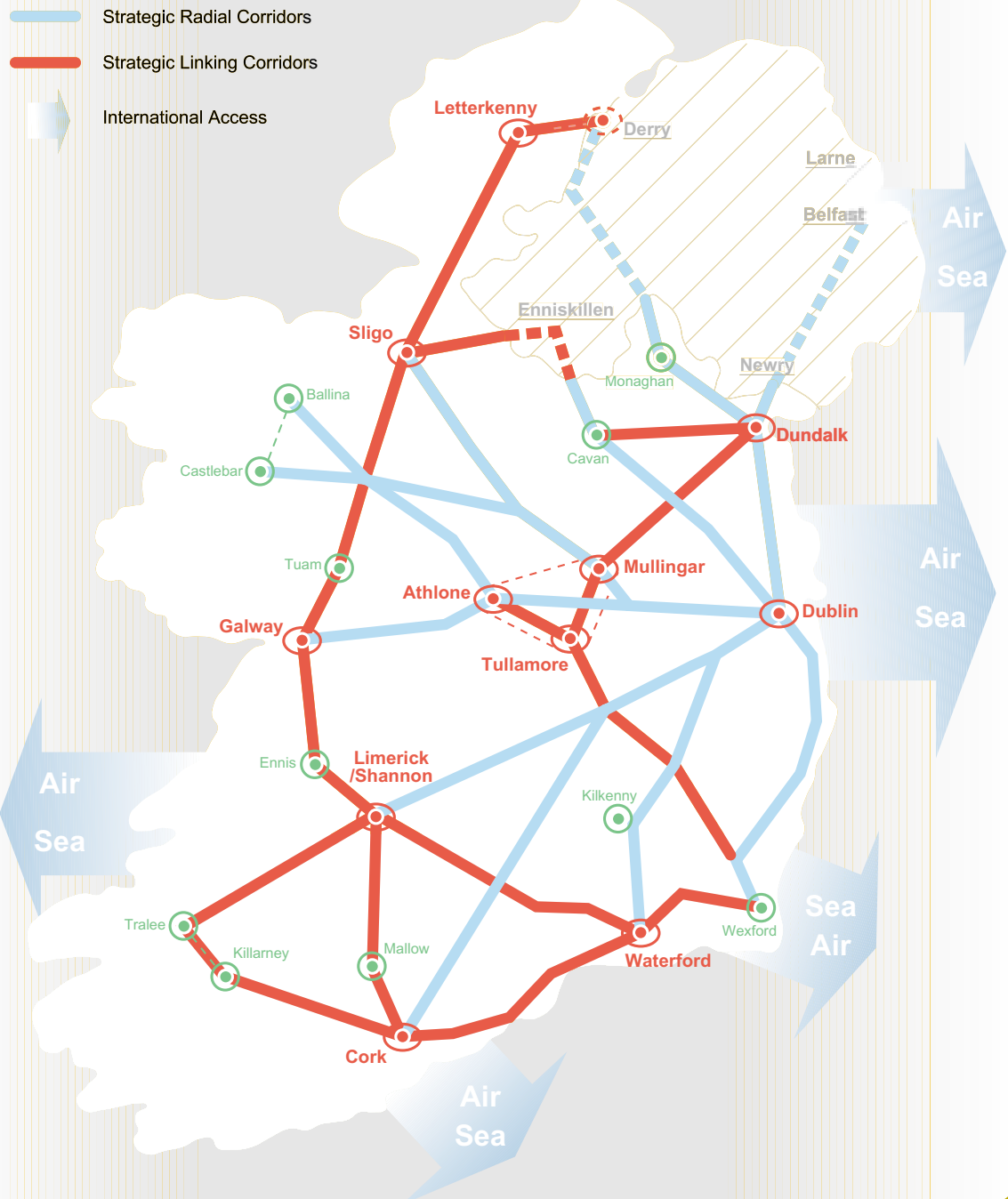
In addition to that, Portlaoise is located near the intersection of the Dublin-Cork/Limerick (N7/N8) roads, the cross-country Mayo/Athlone/Rosslare (N80) road and three strategic rail corridors. This suggests a role for Portlaoise as a key national transport node with the capacity to develop related economic and logistics activities. Wexford also occupies a strategic location where transport corridors from various parts of the country converge on the short sea crossing to the UK as well as to links by sea to the continent. This suggests a role for Wexford as a key national transport node with related supporting activities.

The implications of the strategic transport framework for the different transport modes are

Roads network

– Implementation of the road investment programme under the NDP is a key element in enhancing regional accessibility and thereby underpinning better regional development
– Achieving more spatially balanced patterns of development suggests that improved interaction between the gateways will be required, through enhanced road links between particular cities and towns, with a primary initial focus on Cork, Galway, Limerick and Waterford
– Regional roads will play a key role in linking the main national transport corridors to wider rural areas and smaller towns and villages within these areas and will need to be supported in this role
– Improvement will be needed in the quality of connections between cities and towns which are developing as linked-centre gateways or development hubs

Map 3 National Transport Framework

Strategic Radial Corridors

Strategic Linking Corridors

International Access

Letterkenny

Derry

Larne

Belfast

Air
Sea

Enniskillen

Sligo

Newry

Ballina

Monaghan

Castlebar

Cavan

Dundalk

Air
Sea

Tuam

Mullingar

Athlone

Dublin

Galway

Tullamore

Air
Sea

Ennis

Limerick
/Shannon

Kilkenny

Tralee

Mallow

Wexford

Sea
Air

Killarney

Waterford

Cork

Air
Sea

Public transport network

- It will be important to ensure that rail continues to offer realistic alternatives to road travel on the key inter-city routes — Dublin-Belfast and Dublin-Cork/Galway/Limerick/Waterford.
- Better interconnection between Cork and Galway (via Limerick) would facilitate ease of interaction and enhancement of critical mass
- Services to other gateways and hubs should be enhanced
- Cities and large towns, particularly the gateways and hubs, require well-developed and effective internal public transport networks. Outside the Greater Dublin Area, bus services will be the principal means of providing such networks However if it is to provide an attractive and viable alternative to private car commuting, public transport must be supported by effective, on-street bus priority measures, appropriate demand management measures and complementary land use policy and practice
- Encouraging the development of strong towns and villages will enhance the viability of rural public transport options such as local bus networks. Rural transport policy is being developed by the Department of Transport, with the support of other Departments and the Public Transport Partnership Forum
- New arrangements for the procurement and regulation of bus services outside the Greater Dublin Area will be decided following the completion of consultations on the consultancy study, *Regulation of Bus Services outside the Greater Dublin Area.*

Goods transport

- Adopting a new approach to freight transport and goods distribution based on planning that takes into account the way in which the various links, such as road, rail and ports in the goods supply chain are interdependent
- Implementing effective goods distribution strategies in major urban areas
- Determining the future role of rail freight in the Irish economy in the light of the Strategic Rail Review.

International Access

For Ireland to have a globally competitive but regionally integrated economy, effective connections to the world are vital. Ireland needs good

- national and regional airports and associated air services
- sea ports and associated shipping services.

The economies of scale needed to support effective international access require a focused approach. This will support access from the regions, by ensuring that connections to and interchanges at nationally strategic access points are quick, straightforward and reliable.

In relation to air access, a critical mass of population is required within an airport's catchment to support a range of services to and from a wide choice of destinations. A number of key points arise from this.
In Ireland, Dublin Airport serves the city, region and country and offers the greatest number of international connections. It has direct links to nearly all of the main cities in Europe and a limited number of key routes to the United States. In 2001 a total of seventy airlines served 122 international destinations from Dublin Airport. Expanding the level of services available from Dublin Airport to an even wider range of destinations is essential in the interests of underpinning Ireland's future international competitiveness. However, in a liberalised aviation market, route planning decisions of airlines depend primarily on the anticipated level of demand. The national and regional benefits of expanded services from Dublin Airport can be enhanced through improved connections with (i) the integrated public transport network proposed by the Dublin Transportation Office in *A Platform for Change,* (ii) the national roads network and (iii) regional airports.

Shannon and Cork airports are strategically located, close to significant population bases and serve particular functions. These airports will continue to have an important role in the future by facilitating linkages to as many commercially viable international destinations as possible, as well as linkages to Dublin. In the case of each of these airports, expanding its range of air services will also require an enhancement of the population base they serve. This will also require effective public and private transport connections, in order to bring additional large centres of population within approximately one hour's travel time or less of the airport.

While recognising the transatlantic role of Shannon Airport, its strategic location between Limerick and Galway also suggests an enhanced role for it in serving a wide catchment in the West with a growing population base, through new, commercially viable services to the UK and mainland Europe. This will require improved access to the airport, particularly in public transport terms, through measures such as reducing the travel time from Galway to Shannon. These measures also include consideration by the Strategic Rail Review of the potential for linking Shannon, through the national rail network, to cities such as Cork, Limerick, Galway and Waterford.

Some regional airports have limited direct international connections on a commercial basis, some have links to Dublin Airport in a 'hub and spoke' arrangement, or offer local access in remoter areas for passengers and airfreight.

For sea access, transit between Ireland and other countries passes principally through four main bands of routes which contain one or more ports. These are

- the *Central* band – to and from Dublin/Dun Laoghaire/Drogheda
- the *Northern* band – to and from Belfast/Larne/Warrenpoint/Greenore/Derry
- the *Southern/South Eastern* band – to and from Cork/Waterford/New Ross and Rosslare
- the *Western* band – to and from the Shannon Estuary and Galway.

(See Map 3)

The spatial structure outlined in the NSS raises a number of key points in relation to the future roles of these bands and their ports.

Dublin Port is vital to the national economy and that of Dublin itself and adjoining regions. However the port faces a shortage of capacity, giving rise to its need for more land to accommodate its expanding activities. A possible solution to this, in the medium to longer term, and of benefit to both the port itself and the city, might lie in promoting alternative locations for some current and future Dublin port activities, such as the transit and storage of petrochemicals, bulk goods and cars. More port business to and from various parts of the country through other nationally strategic ports could be encouraged. This may in some cases require substantial investment in facilities at alternative ports.

Developing shipping facilities additional to those at Dublin Port will need to be supported by improved access so that transit times and costs are competitive with those available from Dublin. This will encourage shippers to invest in services. The use of the linking corridors set out in the transportation framework would promote the ports in the northern and southern/south-eastern international access bands thus relieving congestion at Dublin Port.

The export-oriented nature of the Irish economy is highly dependent on effective access to foreign markets. Therefore it is important to maintain a wider international perspective in order to identify critical interventions abroad that would improve Ireland's onward connections and thus reduce the time and cost of moving people and goods between Ireland and the EU. Initiatives in this regard will be undertaken through trans-national collaboration within the EU context.

A priority already apparent is the need for up-grading of alternative corridor links to and through Great Britain and to the European mainland in order to avoid the congestion and bottlenecks on the main corridor link from Ireland to the UK and Europe shown in Figure 2.1.

3.7.2 Energy

Reliable and effective energy systems, such as gas and electricity to power industry and services, are key prerequisites for effective regional development. Ireland's electricity and gas networks are evolving in an integrated way, serving the whole island, while focusing on strategic locations.

Prime considerations in terms of spatial policies relating to energy include

- developing energy infrastructure on an all-island basis to the practical and mutual benefit of both the Republic and Northern Ireland
- strengthening energy networks in the West, North West, Border and North Eastern areas in particular
- enhancing both the robustness and choice of energy supplies across the regions, through improvements to the national grids for electricity and gas.

There may also be potential for streamlining infrastructure co-ordination, planning and delivery, for example by combining the provision of different types of infrastructure in one physical corridor, where appropriate and feasible.

Electricity

National economic growth has led to peak demand for electricity increasing from 2460 megawatts in 1990/1 to 3800 in 2000/1 and this is growing at a rate of between five to six percent per annum.

In addition, the electricity market in Ireland has been opened up to competition under the EU liberalisation programme. This permits new generation plants, which may not be owned by the ESB, to connect to the electricity network – to transport power from wherever it is produced to where there is a demand for it.

The trend of growing demand in a liberalised market environment raises spatial planning issues in relation to

- priorities for reinforcing the transmission and distribution networks
- locations where additional new loads and generation can be accommodated
- good local planning practice.

In relation to the transmission and distribution networks, a major programme of work is underway to reinforce the national grid in order to meet international supply standards and to take account of rising demand. Key elements of this programme to 2007/2008 will be

- upgrading existing lines
- installation and/or upgrading of transformer stations
- new lines.

A particular emphasis is being placed on the reinforcement of the grid in western counties. Accelerated growth in the Border, Midlands and West (BMW) region also suggests that in addition to the above programme, power corridors will need to be considered to augment the capacity of the grid in Galway/Mayo/Sligo and along a corridor from Dublin to Dundalk.

See Fig 3.2 and Fig 3.3

It is vital that this investment programme is integrated with planning policy at regional and local level, particularly through ensuring that the written statements in county and city development plans support the timely commissioning of transmission infrastructure.

In relation to the generation of electricity, expansion of capacity is in hand with two major new plants scheduled to come on stream in the Dublin area by 2002/3. However, there will be a need for significant additional generating capacity in the next few years.. The indications are that the Cork and Limerick City areas represent the most readily suitable points from a grid infrastructure perspective, to accommodate 100 MW new generation capacity. Fig 3.4 shows other areas where new generation capacity can be accommodated in terms of grid capacity.

In relation to the relationship between local planning and electricity network planning, important points to consider include

- the need to address electricity infrastructure in county development and local plans to facilitate national, regional and local economic progress
- the need to liaise with the operators of the transmission and distribution grids, particularly in the environs of towns, to ensure the continued availability of corridors for overhead cables and continuity of supply for existing and new users of electricity.

Gas

Bord Gais is currently involved in a substantial investment programme designed to augment the existing natural gas transmission network, (which runs between Limerick, Cork, Dublin and Dundalk), with the new 'Pipelines to the West'. This will create a ringmain and will for the first time allow Galway, Ballinasloe, Tullamore, Mullingar and Athlone to be connected to the gas network. Bord Gais is also building a second inter-connector between Ireland and the UK, which will secure sufficient gas supplies to Ireland for the foreseeable future.

Bord Gais has also been licensed in Northern Ireland to construct new pipelines from Belfast to Derry and from Gormanston, County Meath to Antrim. This project will involve grant aid including exchequer support by the Irish Government. The Government also decided in 2001 that in principle, and subject to a more detailed analysis, the gas network should be extended to Letterkenny from Derry and to Sligo via a spur from the Mayo/Galway pipeline, which is planned to connect the Corrib field to the gas network. Figure 3.5 illustrates the gas network in terms of existing and proposed pipelines, excluding local and industry spurs.
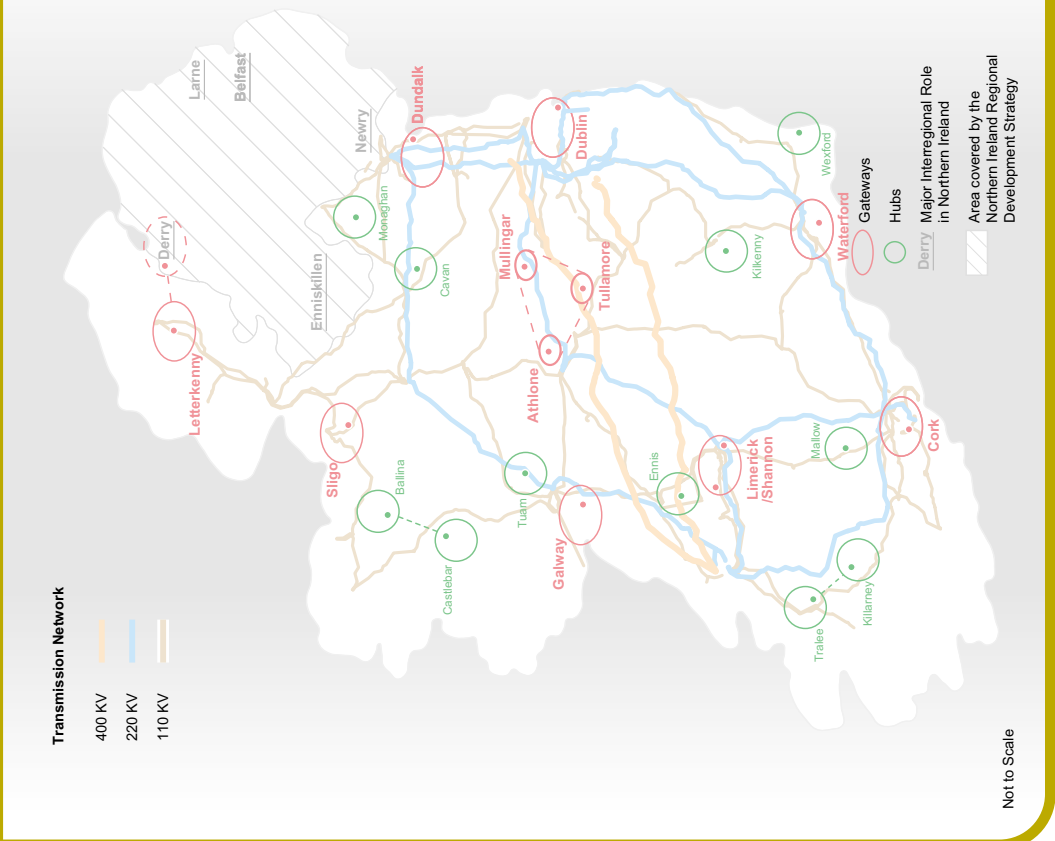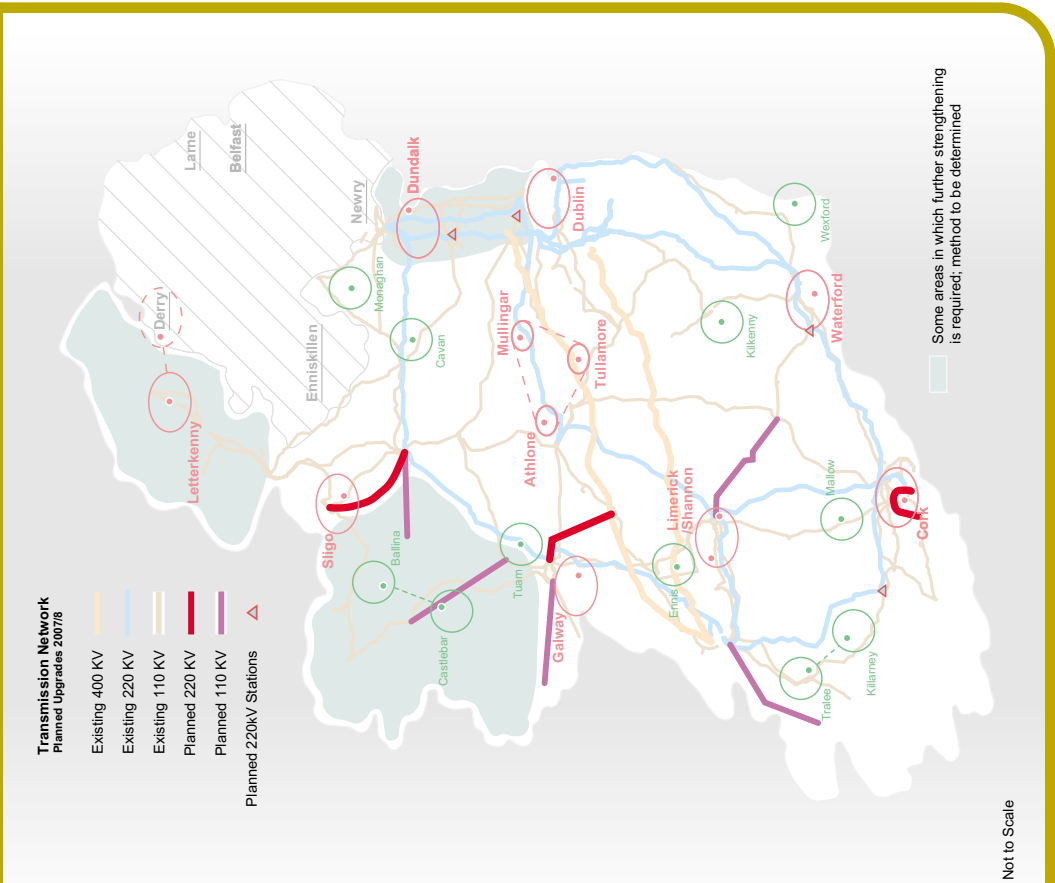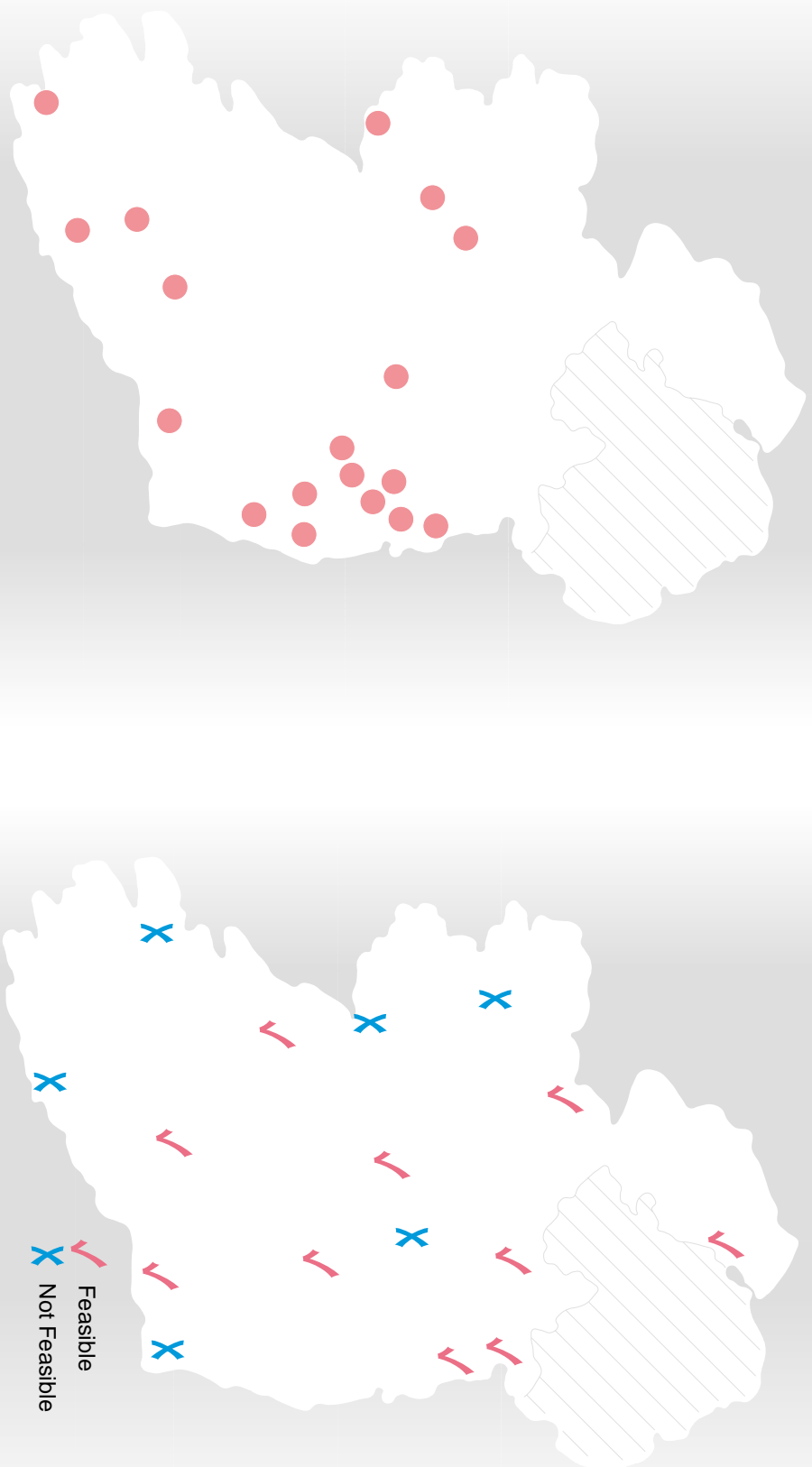
Figure 3.2 Electricity Network 2001

Transmission Network

- 400 KV
- 220 KV
- 110 KV

Larne
Belfast
Newry
Dundalk
Derry
Letterkenny
Enniskillen
Monaghan
Cavan
Mullingar
Tullamore
Dublin
Sligo
Ballina
Athlone
Kilkenny
Wexford
Castlebar
Tuam
Galway
Ennis
Limerick /Shannon
Mallow
Cork
Tralee
Killarney
Waterford

Gateways
Hubs
Derry Major Interregional Role in Northern Ireland
Area covered by the Northern Ireland Regional Development Strategy

Not to Scale

Figure 3.3 Electricity Network Strengthening

Transmission Network
Planned Upgrades 2007/8

- Existing 400 KV
- Existing 220 KV
- Existing 110 KV
- Planned 220 KV
- Planned 110 KV
- Planned 220kV Stations

Larne
Belfast
Newry
Dundalk
Derry
Letterkenny
Enniskillen
Monaghan
Cavan
Mullingar
Tullamore
Dublin
Sligo
Ballina
Athlone
Kilkenny
Wexford
Castlebar
Tuam
Galway
Ennis
Limerick /Shannon
Mallow
Cork
Tralee
Killarney
Waterford

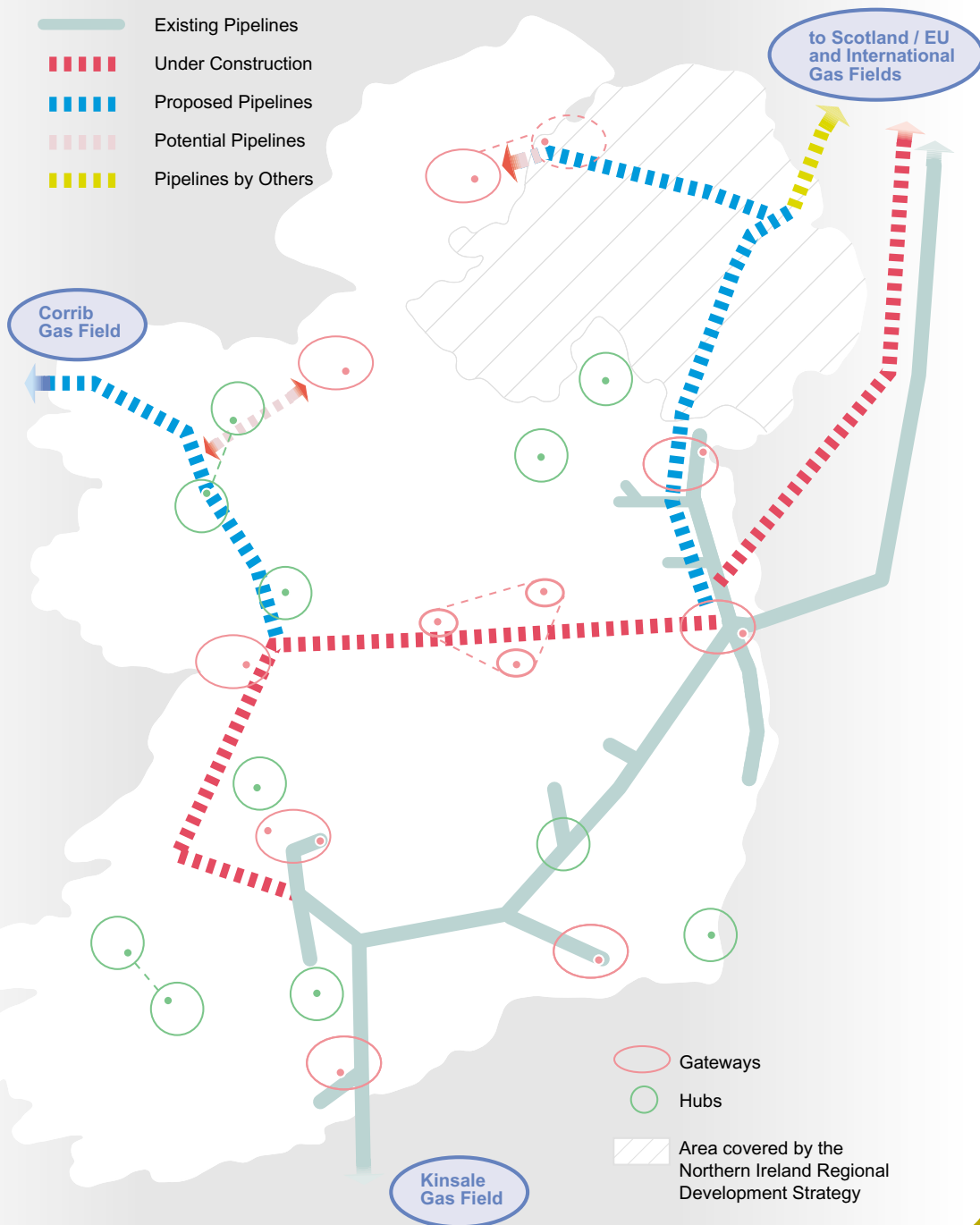Some areas in which further strengthening is required; method to be determined

Not to Scale

Figure 3.4 Electricity Improvements & Opportunities

New Interface Stations
between Transmission and Distribution Systems

Capacity for
100 MW Generation at 110 KV Stations in 2004/5

Feasible
Not Feasible

Figure 3.5 Gas Pipelines

Legend:
- Existing Pipelines
- Under Construction
- Proposed Pipelines
- Potential Pipelines
- Pipelines by Others

to Scotland / EU and International Gas Fields

Corrib Gas Field

Kinsale Gas Field

Gateways

Hubs

Area covered by the Northern Ireland Regional Development Strategy

The net effect of these planned and envisaged developments is that the spatial framework of gateways, hubs and other elements of the urban-rural structure outlined earlier in this section will, broadly speaking, benefit from an extensive gas pipeline network interconnected with both domestic and international gas supplies.

3.7.3 Communications

Opportunities based on the knowledge economy e.g. software development, web hosting, digital media content development, call centres, data processing and storage, on-line working opportunities and design functions, are playing an increasingly important role in the Irish economy. A modern high-speed, low cost communications and broadband network is essential as an enabler of economic activity in this sector and in a range of other arenas. In a liberalised market the primary responsibility for the provision of this infrastructure resides with the private sector communications service providers.

Ireland's communications infrastructure includes international connections that position the country as a bridge between the USA and Europe to which access is available at relatively low cost. Internal high-speed links between the main cities and towns generally follow the road and rail networks radiating from Dublin. Under the National Development Plan measures are in place seeking to engage as many actors as possible, including local and regional authorities and local communities, in enhancing these links. These programmes complement and support the National Spatial Strategy. The provision of low cost, high quality access to broadband and similar technologies will be highly influenced in the future by their combination with other critical elements such as population base, transport facilities, innovation capacity and quality of life.

Effective communications infrastructure will help to attract investment in intellectual and physical capital into regions. However, communications infrastructure on its own will not be sufficient to overcome other major structural weaknesses in a given region. Accordingly, approaches to communications infrastructure should be co-ordinated and timed to reinforce the impact of other infrastructural and social investments. Where possible the rollout of advanced communications infrastructure in the regions needs to be co-ordinated with the rollout of other infrastructure and vice versa.

Since the liberalisation of the telecommunications market telecommunications policy has followed two broad strands. Firstly to develop a fully competitive market to support required investment by the private sector; and secondly to pump prime the required investment through the use of public funds where the required infrastructure and services will not be delivered quickly enough by the market.

It is desirable that affordable 'always-on' broadband infrastructure and services for business and citizens be widely available within three years. To achieve this it will be necessary to promote the utilisation of a range of existing technologies at broadband speeds appropriate to specific categories of service and customer. In particular, more widespread availability of Digital Subscriber Line (DSL) services using existing copper wire networks is required. The Government's objective is that Ireland be in the top 10% of OECD countries in terms of the national and regional broadband connectivity within three years. In the medium term, it is expected that broadband speeds of 5 megabits per second to the home and more than that for business will become minimum standards. It is the Government's objective that Ireland be the first country in Europe to make this level of broadband service widely available.

As already indicated the provision of broadband telecommunications is the responsibility in the first instance, of the private sector. Any State involvement in this area is confined to the provision of seed capital. Actions undertaken to meet the Government's three year objective will ensure that any infrastructure put in place is capable of being upgraded to meet the longer term targets.

3.8 Strategic Infrastructure Priorities

The objectives of the Spatial Strategy are dependent on developing strategic centres with enhanced roles and prioritising the provision of various forms of physical and social infrastructure in support of those enhanced roles. To achieve this, targeted policies and supports will be required. A targeted approach has two important benefits

- It offers clarity to the private sector in terms of identifying future development and commercial opportunities, including those involving Private Public Partnerships

- It provides a spatial framework within which public investment programmes can be organised to achieve more balanced regional development.

In certain exceptional circumstances, where the NSS is proposing accelerated regional growth, there may be a category of infrastructure whose provision is particularly critical to supporting the growth of, for example, a new gateway and its associated region.

In such circumstances, it may be necessary to consider, over the 20-year horizon to which the NSS relates, the advance provision of key infrastructure ahead of actual need. This might apply in the following circumstances

- substantial growth is anticipated and a quantum shift is required in providing infrastructure such as energy, communications and transport

- the private sector clearly does not have the capacity to provide the particular infrastructure

- the provision of such infrastructure would strongly support the spatial objectives of the NSS.

Prioritisation of resource provision will also need to take account of experience of the cost effectiveness and value for money aspects of the different modes and types of infrastructure, with an emphasis where appropriate on the role of the private sector in the delivery of infrastructure.

The development of Public Private Partnerships on a value for money basis will be an important option to assist the implementation of the NSS, through the provision of essential infrastructure and quality public services.

Local planning and local strategies will identify particular local investment priorities. The following paragraphs outline strategic infrastructure investment priorities at the national level that flow from the spatial framework set out in the NSS.

3.8.1 Transport

Potential of existing gateways: In Dublin the *Strategic Planning Guidelines* and *Platform for Change* provide frameworks for spatial development and linked transportation provision, which is in the process of being implemented through the NDP. Similar frameworks have been adopted in Cork and are being developed in Limerick, Waterford and Galway. The implementation of such strategies, particularly in terms of public transport investment, will represent a key step towards enhancement of critical mass and unlocking the potential of these cities and their surrounding areas of influence.

The radial corridors: The NDP provides for the completion of the main road inter-urban links. Beyond this the priorities should be

– improved integration of the Letterkenny/Derry Gateway into an all-island transportation framework
– improved access to Sligo that builds on recent investment in road and rail routes
– improved access to Mayo in a manner that ensures effective integration between investment in infrastructure and location of key towns.

The linking corridors: To achieve balanced regional development, the existing and proposed gateways will require an improved level of public and private transport connections between them. The priorities in this regard are

– improved connections between Cork, Galway, Limerick and Waterford,
– enhanced North/South road linkages through the Midlands.

International access: To ensure Ireland remains effectively linked to international markets, the existing and proposed gateways will require good quality links via nationally strategic ports and airports. The priorities in this regard include

– enhancing the role of Dublin, Cork and Shannon airports as international airports through efficient terminal facilities and effective land-side access by road and public transport
– promoting alternative corridors to ports in Northern Ireland, the Shannon Estuary, on the east coast and in the south east, as an additional option to the central corridor port of Dublin.

3.8.2 Energy

The considerations previously outlined see Ireland's future electricity and gas distribution networks integrated on an all-island basis which underpins and drives regional development. Priorities in this regard are

- improving reliability of electricity supply in western, north western, border and north eastern parts of the country through enhanced access to the national grid e.g. securing progress on the proposed national grid link from Galway to Sligo
- strengthening the electricity supply networks to and within the proposed gateways and hubs
- strategic strengthening of the electricity grid serving particular clusters of employment related demand in peripheral areas, e.g. in West Donegal
- better integration between the electricity grid in Northern Ireland and Donegal
- subject to appropriate commercial evaluation, extending the gas network to support the development of the existing and proposed gateways and hubs, including, where necessary, appropriate advance investment to meet anticipated demand arising from planned-for growth in these centres.

3.8.3 Communications

The Government's programme to address deficiencies in Regional Broadband Networks takes account of

- the importance of advanced communications infrastructure for an information based society in terms of regional accessibility and as a key support for business, education and research
- the need for clustering of potential customers of information technology infrastructure to provide a basis on which market providers of such infrastructure can respond to demand resulting from effective spatial policies.

The priorities, in line with the NSS are as follows.

Support for 19 local authority-led infrastructure projects and a national PPP-type process to create a management entity to operate these networks. Any extension of the programmes beyond the 19 cases may be considered when the 19 projects have been evaluated and the Government has decided on possible future directions in this area.

The precise technology investment will depend on local market circumstances and projected demand. The first phase towns and cities will involve a fibre optic network deployment. In many of the towns to be included in subsequent phases fibre optic cable may also be the appropriate solution. Wireless or DSL technologies may be the most appropriate solution in other cases. These networks will be managed on an open-access basis by an operator-neutral Public Private Partnership.

The Government will continue to support investment in the national communications research network with a view to promoting high-speed communications linking all institutes of education and research in the State and connecting them, in turn, to major international research networks.

The Government will also continue with a programme of focussed investment to leverage private sector investment in the deployment of advanced broadband technologies and services in the regions.

It will also be important to ensure that regulation of the communications market works to maximise the incentives for private investment. There is a need to provide a balance of demand and supply side incentives where appropriate, and to focus support on areas

- where private capital will not be displaced
- where the deployment of alternative technologies will not be disincentivised
- where the objectives of the investment can be clearly identified, targeted and delivered.