

Ireland: The Roads to Success

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Introduction

Over the past decade, Ireland has seen an historic level of economic growth and prosperity. Once a struggling, isolated, agricultural-based nation, Ireland has transformed itself into a competitive, high-tech world player. The nation's newfound success has come mainly through attracting foreign direct investors eager to benefit from the nation's low corporate taxes and to take advantage of direct access to the European market. With this influx of new companies and factories in Ireland, there has been an unprecedented need for skilled labor which has helped turn back the traditional tide of emigration and has enticed many Irish men and women back to their homeland.

Throughout this economic transformation, the new companies and increasing population have begun to strain Ireland's communication and electric power systems, housing, water facilities, airports, seaports, railways, roadways, and more. Indeed, as John Fitz Gerald of the Economic and Social Research Institute notes, "[Ireland's] economy has outgrown its clothes!" (Fitz Gerald, p.3) The evolution and expansion of Ireland's "clothes" are essential in sustaining the nation's growth and success. Without a convenient, modern physical infrastructure, Ireland will not be able to maintain its position in the economic fast-lane.

Ireland, fortunately, has recognized the great necessity for investment in its physical infrastructure. Through government programs, many partially funded by the European Union, the nation has addressed and continues to address this key issue. One of the most visible areas of need for investment and improvement is the transportation network in Ireland, particularly the roadways, which directly connect the cities and regions of the nation. In order to understand the significance of roadways in Ireland, one must first understand the importance of transportation, the various modes of transportation available, and Ireland's specific transportation situation. Then one may delve into the various transportation funding sources and the past, present, and future plans aimed at improving the roadways.

Transportation

What's All the Fuss? The Importance of Transportation in Ireland

Safe and efficient transportation of people and goods is one of the biggest challenges that Ireland faces today. The importance of a transportation network is far-reaching, affecting everything from the day-to-day lives of common people to the economic success of the nation as a whole. The welfare of the average person is greatly dependent on how easily he or she can get to the store, to the doctor, or to work. Furthermore, people desire the most cost-effective and efficient modes of transportation for both business and personal travel.

Transportation is even more critical in the commercial world. Ireland is highly dependent on revenues from exported goods, which must leave the country and arrive at their destination unscathed and on time. Within the nation, population and economic development are widely dispersed, and companies therefore rely heavily on the transportation network to move both goods and workers. (DELG) One of the keys to Ireland's continued economic success has been its production of high-value-added products which are transported in relatively low volumes and

must be moved to and from a wide variety of places with the most speed possible. Although Ireland has evolved toward a high tech economy with substantial software and e-commerce industries, agriculture is still an important component of the economy, accounting for 9 percent of GDP. (DELG) This substantial dependence on agriculture is another reason for the importance of a high quality transportation network. Tourism, another important economic sector, requires an extensive transportation network so that visitors may frequent the rustic towns, ancient castles, and spectacular cliffs of the less populated regions as well as the many attractions in Dublin and the other cities. (DELG)

Transportation Options: Waterways, Airways, Railways, and Roadways

In Ireland, transportation options include sea, air, rail, and road travel. As an island nation, Ireland relies exclusively on air and sea travel for transportation to and from other countries (excluding Northern Ireland). There are 44 airports in the nation, 17 with paved runways. (CIA) The two largest international airports, one on the west coast and one on the east, are in Shannon and Dublin respectively. There are also nine ports and harbors and 700 km of waterways in the country. (CIA) These modes of transportation are vital for external travel and exporting and therefore have been improved and expanded as the economy has dictated.

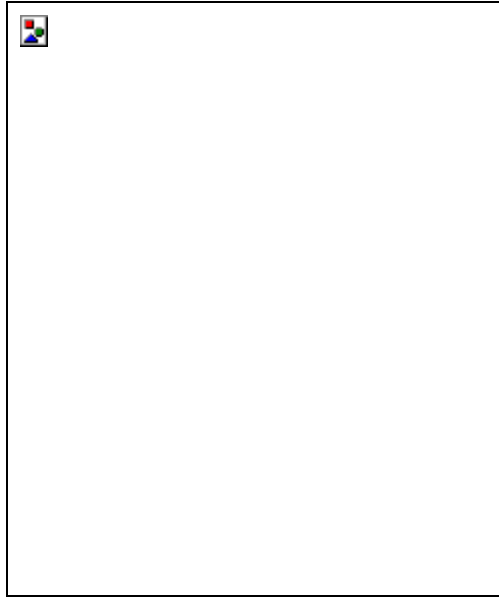
Air and sea travel *within* Ireland, however, is limited by both cost and accessibility issues. In regards to sea travel, although there are inland waterways, all of the major ports and harbors lie along Ireland's shores and therefore provide little access to inland destinations. Furthermore, the land distance between most of these ports is less than the sea distance, thereby offering no tangible benefit in shipping low volume cargo from one port to another when road transportation is a viable option. Sea shipping, therefore, is used mainly to transport lower-value, high-volume cargo.

Air travel is not a large-scale answer to transportation needs in Ireland because of the relatively short distances generally traveled within the country. On an island with an area of only 84,288 sq. km, a maximum length of 485 km, and a maximum width of 304 km, ("Around Ireland") it is usually more time consuming and expensive to choose air travel over other modes of transportation. Furthermore, neither sea nor air travel addresses transportation issues within the large rural areas in Ireland. Approximately 42 percent of Ireland's national population inhabit the extensive rural areas of the country, particularly the border, midlands, and west region (the so-called "BMW" region). ("Keeping It in the Countryside") Clearly, this segment of the population can not be ignored in transportation analysis.

Since air and sea travel are not viable options within Ireland, internal transportation relies on railways and to a much greater degree on roadways. There are almost 2,000 km of railways in the nation (CIA) as well as a light rail system (the DART) in the greater Dublin area. Both the main rail and the light rail system are excellent alternatives to road transportation for goods and people. They are limited, however, in their usage because of capacity and extent. While the existing lines target the main population centers (see Figures 1 and 2 below) and therefore decrease the road traffic burdens in these areas, the rail system has not yet reached its full usage potential. A concurrent improvement and extension of both railways and roadways are necessary to answer Ireland's infrastructural needs.



Figure 2
Ireland's Population Density



The main component of transportation in Ireland is unambiguously the road network.

reann"

Road transportation is the most popular mode of transportation, not to mention being by far the most popular. Source: "Travel Through the Ireland Story" There are 74,000 km of roads in Ireland, 94 percent of which are paved. (CIA)

Figure 1
Ireland's Rail Network

Ireland, more than other European Union countries, relies almost exclusively on its roadways for inland passenger transport. A total of 97 percent (91 percent by car, six percent by bus) of passenger transportation is by road, while the remaining three percent takes place via railway¹. (Facts through Figures, p. 22) Nearly all citizens have access to private cars and enjoy the convenience and flexibility which road transport offers. Also, in the rural regions of the nation, roadways are not just the best means of transportation, but often the only means of transportation.

In the commercial world, road travel is most popular because of the speed, ease, and extent of delivery that it facilitates. Inland transport of goods is completed 90 percent of the time

by road with the remainder carried by rail. (*Facts through Figures*, p. 22) Tourism also favors road travel because it allows personal exploration and discovery. Private tourists in their rented cars and bus groups require roadways to travel from one destination to another, particularly in the vast untouched green regions which draw so many visitors to the island.

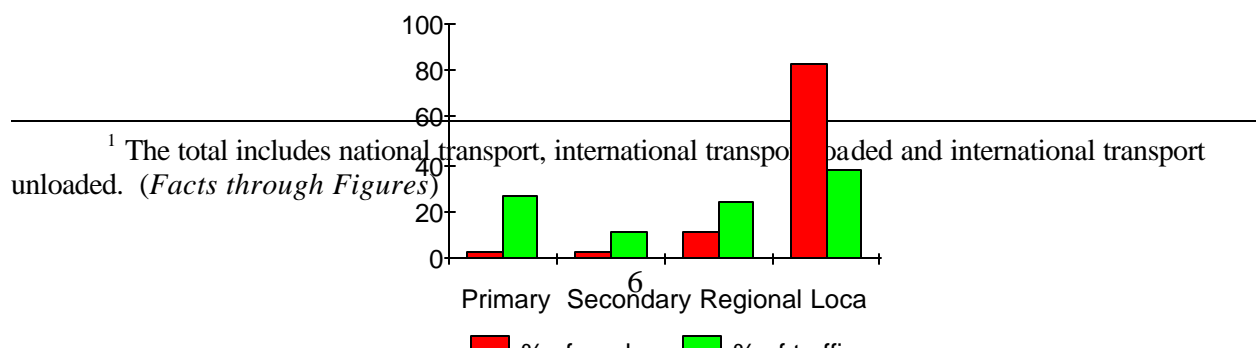
Break It Down: Classification of Ireland's Roadways

In order to pursue an in-depth look at the many types of roads in Ireland, it is necessary to classify Ireland's varying road types. There are four main road classifications: national primary, national secondary, regional, and local. The national primary roads are the major long-distance through-routes, which link principal population centers and thus serve a high percentage of the population. The national secondary roads are medium-distance through-routes connecting smaller key towns with links to the primary routes. Regional roads act as the main links between the national roads. Finally, local roads consist of all rural and urban roads that are not included in one of the other categories. (DELG)

As in most countries, the national primary roads in Ireland carry a disproportionate amount of the road traffic. Figure 3, below, shows the stark disparity between the percent of all roads which each type of category constitutes and the actual percent of traffic which each carries. While comprising only three percent of the total road network, primary roads carry 27 percent of total road traffic. National secondary roads comprise another three percent of the road network while carrying eleven percent of total road traffic. Regional roads make up eleven percent of the

Figure 3

Road Extent vs. Usage



¹ The total includes national transport, international transport loaded and international transport unloaded. (*Facts through Figures*)

road network and carry 24 percent of the road traffic. The local roads make up 83 percent of the road network but carry only 38 percent of the road traffic. (DELG) Because of this disproportionality in use, the national primary roads have been the main target for improvement and extension.

Source: DELG

Taking Action: Irish Transportation Investment

Considering the great importance of a transportation network in Ireland and the key role of roadways in this network, it should come as no surprise that Ireland has invested heavily in its entire transportation network and particularly in its roadways. Since 1989 Ireland has had integrated transport programs in place. These programs have aimed at upgrading and extending Ireland's transportation network in order to meet the increasing demand for safe and efficient transport of people and goods. Although it has recognized the need for investment, Ireland, on its own, has not had the resources necessary to undertake the multi-million Irish pound expenditures required for tangible and sustained transportation infrastructure improvement. As Ireland and other European nations faced infrastructural deficits, the European Union (EU) recognized the importance of this element to the economic and social vitality of its member nations. The EU acted by offering strategic aid in planning, implementing, and financing programs to upgrade the transportation network.

Ireland joined the EU, a group of fifteen European nations bound under several treaties of alliance², in 1972. These treaties provide for a less divisive European economic community by

² Today's EU began forming in 1951 with the signing of the treaty establishing the European Coal and Steel Community which brought together Belgium, France, Germany, Italy, Luxembourg, and the Netherlands in a common market for coal and steel. On March 25, 1957, the treaty establishing the European Community and the treaty establishing the European Atomic Energy Community were signed expanding the role and power of a united Europe. Finally, on February 7, 1992, the Treaty on European

allowing the free movement of workers, goods, and services among member countries. The countries share many common policies and together take responsibility for social, regional, and environmental matters. Most recently, the EU countries have joined in a common currency and monetary policy.³ One of the European Union's central goals is to raise all member nations to an equally high standard of living and thereby create a better social and economic balance among member states. In order to promote this convergence to a high standard of living, the EU has set up Structural Funds to help co-finance projects in member states in order to help them reach this goal.

There are four separate Structural Funds, each with specifically tailored goals to ensure that all countries in the EU can reach the desired level of development. The four funds are the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Guidance Section of the European Agriculture and Guarantee Fund (EAGGF), and the Financial Instrument for Fisheries Guidance (FIFG). Each of these funds focuses on particular social and economic goals ranging from improved training for the chronically unemployed to investment in food processing and marketing to restructuring the fishing industry. The Cohesion Fund, created in 1992, complements these Structural Funds by co-financing projects in the most underdeveloped member nations (Spain, Portugal, Greece, and Ireland in 1992). ("EU Structural Funding in Ireland") In setting up these Structural Funds, the European Union recognized that the development of a stable transportation network was crucial in the quest for a higher standard

Union was signed in Maastricht joining the member nations in ever-closer economic and social bonds. ("Seven Key Days...")

³ See Tim Doherty's article entitled "Ireland and the Euro: An Issue of Legacy, A Question of Optimality" in this volume for more information on the European Union's monetary union and the common currency.

of living. The ERDF and the Cohesion Fund are the two main sources of EU funding for transportation infrastructure projects.

Operational Programme for Peripherality (1989-1993)

The first wave of infrastructural investment in Ireland came in 1989 when the nation's first integrated transport policy, the Operational Programme for Peripherality (OPP, 1989-1993),

took effect. The OPP addressed many of the aforementioned physical infrastructure components in an attempt to decrease internal and access transport costs. ("EU Structural Funding in Ireland") One of the most important areas of investment under the program was the road network, particularly focused on the national primary roads and main trunk roads.

Approximately 450 kms of national primary roads and another 1700 kms of other roads were improved or upgraded leading to a reported decrease in journey time, a reduction in transport costs, and a better environment for towns which were by-passed. Total spending under the OPP was €9.2 billion with €4.2 billion from EU co-financing. ("EU Structural Funding in Ireland")

The Cohesion Fund (1993-1999)

During the program period of the OPP (1989-1993), the European Union proposed to further help its poorest member states (those with GNP per capita below 90 percent of the EU average) by giving them additional funding beyond the Structural Funds. Thus, the Cohesion Fund was initiated and went on to provide assistance for the period 1993-1999 to Ireland, Spain, Portugal, and Greece. Over €15 billion of the EU budget was committed to this fund with 7-10 percent allotted for projects in Ireland. ("EU Structural Funds in Ireland (1994 - 1999)") The fund partly financed many projects to help the environment and improve the trans-European transport network. (*The Cohesion Fund in Pictures*, p. 5) In Ireland, 46 percent⁴ of funding went to environment projects while the remaining 54 percent was dedicated to transport projects. Of the transport funds, the great majority, 84 percent, went to roads with the balance invested in rail, ports, and vessel traffic systems. ("Inforegio, How Is the Money Being Used in Ireland?") Specific roadwork included widening, modernizing, and extending particularly congested sections of the Irish road network to improve safety and traffic flow. A new ring motorway

⁴ Data is for funding year 1996.

around Dublin was built to help lessen the gridlock in the city and let motorists by-pass the city. (*The Cohesion Fund in Pictures*, p. 26)

The Operational Programme for Transport (1994-1999)

With the success of the Operational Programme for Peripherality (1989-1993) and the newly implemented Cohesion Fund, Ireland and the European Union decided to fund another program to continue the efforts which had been started. Thus, the Operational Programme (OP) for Transport was enacted in 1994 under the auspices of Ireland's Department of Environment and Local Government. The Department has the responsibility of promoting safe, efficient, and cost-effective road movement of persons and goods within the framework of the nation's integrated transport policy. The Department has many road-related duties including policy development, promotion of legislation, promotion of road safety, driver testing, and negotiation of national and EU funding. (DELG)

The OP for Transport (1994-1999) aimed at further improving Ireland's internal and access transport systems by investing in key physical infrastructure components. The program was again designed to reduce transport costs and increase the reliability of the existing transport systems. A total of €1.4 billion with 63 percent (€888 million) from the EU and the remainder from public sources was allotted to the OP for Transport. This investment was allocated through two subsections of the overall OP for Transport: the National Economic Development Sub-Programme and the Sub-Regional Economic Development Sub-Programme. The National Economic Development Sub-Programme dictated that some 65 percent of the total transport infrastructure investment be directed towards roads. The program focused on improving and increasing the capacity of key national primary road corridors within the long range plan to

complete a national primary road network with an inter-urban travel speed of 80 kph by 2005. ("EU Structural Funds in Ireland 1994 - 1999")

This investment focused on four strategic corridors between Ireland's major business hubs⁵ that would serve a high percentage of the population. Recall that these roads account for only 3 percent of the total road network but carry 27 percent of total road traffic. (DELG) Specific improvements under the program included new routes, realignments of existing routes, town bypasses, new river crossings, ring roads, and relief roads all in an attempt to lessen highway congestion and substantially improve the inter-urban road network. The national secondary road measure, also under the National Economic Development Sub-Programme, concentrated on improving a small number of crucial tourist, access, and linking routes such as around the Ring of Kerry, to the Shannon Estuary, and from Dundalk to Nenagh. The second sub-programme, that for sub-regional economic development, invested in transport factors which are important for sub-regional or local economic development including investment in non-national roads and the Dublin transport initiative. The road measures concentrated on ensuring a satisfactory mode of transportation for the rural economy while the Dublin Initiative began to address the city's growing cosmopolitan transport needs. ("EU Structural Funds in Ireland (1994-1999)")

Current Situation

Even with all of the tangible steps made in improving Ireland's transportation network, the process of creating a safe and efficient integrated transport system has by no means been

⁵ The four strategic corridors as identified by the EU Structural Funds in Ireland 1994-1999 are:

1. North/South : Belfast - Dublin - Rosslare - Waterford - Cork
2. Southwest: Dublin - Limerick/Shannon - Cork
3. East/West: Dublin - Galway - Sligo
4. Western: Sligo - Galway - Limerick - Waterford - Rosslare

completed. Ireland does not necessarily need more miles of roads, but it does need these roads to be of a sufficient quality to handle the demands of the nation's economic activity. Main inter-city routes still go through small towns that, on occasion, may even have stop signs. Upgrading and re-routing these key roads, therefore, is a prime funding target. Ireland's continually increasing economic activity and population are placing more and more demands on the transportation infrastructure.

The National Development Plan (2000-2006)

The Irish government recently released Ireland's National Development Plan (NDP) for the period 2000-2006. As Minister for Finance, Mr. Charlie McCreevy, says,

[This plan] has been framed after the most extensive consultation.... It reflects the broad consensus ... as to the future development needs of the country. It sets out an ambitious and coherent development strategy ... in the key areas of infrastructural development, [etc]. The vision of the National Development Plan is to ensure that Ireland will remain competitive in the global international marketplace and that the fruits of our economic success will be shared more equally at a regional level and throughout society.

(Ireland National Development Plan 2000-2006, p. 5)

The NDP calls for an investment of 40.6 billion Irish pounds of public, EU, and private funds over the next six years. Of this total expenditure, 17.6 billion Irish pounds are allotted for programs to improve economic and social infrastructure. National roads and public transport will receive 6.9 billion Irish pounds (39 percent) of this. The road allocations will be used to

complete five national primary route⁶ upgrades to motorway/improved dual carriageway standard and undertake major improvements on several other national primary routes and national secondary routes. There is also a provision of 2.2 billion Irish pounds for improvements in public transportation, particularly in the greater Dublin area. (*Ireland National Development Plan 2000-2006*) The public transportation investments, though not directly funneled into roadways, do have an important link with road investment because the improved public transport will help lessen the strain on the existing roads. The goals of the NDP are very ambitious and if achieved will succeed in the near completion of an integrated transportation network. Because of its ambitious goals, critical opposition to the plan has arisen. The Institute of Chartered Surveyors, for example, has reportedly called on the government to rethink its strategy because "construction targets announced in the plan could actually damage the economy." The Construction Industry Federation and the National Roads Authority, though, deny that changes are necessary and claim that they have sufficient capacity to complete the construction elements of the plan. ("Rethink on Plan...")

⁶ These five routes as identified by Ireland's National Development Plan 2000-2006 are:

1. Dublin to border
2. Galway to Dublin
3. Cork to Dublin
4. Limerick to Dublin
5. Waterford to Dublin

EU Funding 2000 -2006

After much heated debate among the member states of the European Union, a decision was made to tighten the reigns of future funding by concentrating aid on those regions most in need. The EU hopes that a gradual reduction of aid to previously less well-off countries as they become stronger will not cause a stall in development but will help the countries continue to grow while pursuing sustainable non-EU investment sources. ("Europe's Agenda 2000", p. 11)

In Ireland, because of the disparate development between the BMW regions and the southern and eastern regions, the EU placed these areas in different funding categories for the period 2000-2006. The more rural, less developed BMW region will continue to receive full assistance while the more urban and developed southern and eastern regions will receive a decreasing level of transitional assistance. ("Inforegio", Funds, 2000-2006: Objective 1) The funding to both areas will be used to continue all of the economic and infrastructural investment projects that have been helping to transform the landscape and economy of Ireland.

On the Roads to the Future

As Ireland begins to receive a decreasing amount of assistance from the EU, public and government resources will take over the investment burden. Although the past EU funding has clearly been essential for Ireland, most Irishmen feel that it has had only a minor role in Ireland's boom, and they are confident that new investors will be able to step forward and continue the great improvements that have already been made to Ireland's transportation network. As the economy of Ireland continues to thrive and expand, the transportation network will become increasingly vital to the health of the nation. Just as it has been in the recent past, transportation must be a key area of development in the future. Only then will Ireland be able to reach its fullest level of economic and social success.

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Abstract

Ireland's tremendous economic growth and prosperity over the past decade have put a strain on the nation's infrastructure, particularly on its transportation network. This article examines Ireland's past and future endeavors to address this vital issue.

Biography

Billie S. Morrow will graduate with highest honors from Lehigh University in May 2002 with a Bachelor of Arts degree in Economics. She is a Roy C. Eckardt College Scholar and a Dean's Scholar and was inducted into the Phi Eta Sigma honor society and the National Society of Collegiate Scholars. She was a charter member of Chi Omega sorority and is still actively involved with the sorority as well as the Fellowship of Christian Athletes, the Lehigh Christian Community Church, the Tae Kwon Do Club, the Soccer Club, the Women in Business Club and intramurals. She spent the spring of 2001 studying abroad at the American University of Paris. After graduation, Billie will pursue a Masters degree in economics at Lehigh as a President's Scholar.