

Irish Council for Science, Technology and Innovation

Technology Foresight Ireland Report of the Transport and Logistics Panel



Established by the Government and Forfás to advise on Science, Technology and Innovation





Executive Summary

This report summarises the findings of the Technology Foresight Transport and Logistics Panel. It describes the methodology used to examine the needs of the sectors in relation to the movement of goods and the movement of people and lists the strategic options as developed by the Panel.

Methodology

Scenario planning, as used in Technology Foresight, is a methodology for testing a range of strategic options which can be deployed now, to prepare for whatever situation that might arise in the future. The methodology involves developing an understanding of the future, and by identifying a cohesive set of strategies, driving forces and uncertainties, the Panel were able to create a number of plausible scenario stories set in the year 2015.

These stories were used at the Consultative Workshops to stimulate the participants' thought processes and to facilitate an unbiased exploration of the relevant issues. The advantage of using scenarios is that they 'synchronise' the participants mental time frame and assist in the organisation of data about the future.

Recommended Strategic Options

The key finding of the Panel, given that all aspects of the transport and logistics sectors are central to the continued, sustained development of our economy, was the apparent lack of co-ordination and co-operation between the various segments of the sectors.

As a means of rectifying these and other deficiencies in the sectors, the Panel proposes a number of strategic options for immediate consideration and response by each of the following:

Government

- Appoint a Minister for Transport, incorporating logistics
- Integrate national/regional planning demand and enforcement powers to an authority such as the National Transport Authority
- Accelerate the adoption of already agreed strategies currently awaiting implementation.
- Government and Sectors
 - Create a National Transport and Logistics Government/Business Forum.
- Sectors
 - Create a national umbrella organisation involving every aspect of the transport and logistics sectors.

• Public and Private Research Agencies

Carry out research and development programmes and studies in the following areas:

- Intermodal transport
- Road maintenance networks
- Demand management of all modes of transportation



- Telematics advanced traveller information and transport systems
- Social science research combined with research and technology development
- Social and environmental research into land use development.





1. Introduction

Technology Foresight – Transport and Logistics

he Technology Foresight process undertaken by the Transport and Logistics Panel was aimed at generating a sense of direction focussed on the year 2015. It involved developing an understanding of the future, by exploring key trends, uncertainties and influences that are likely to shape the way the future evolves.

Objectives for the Transport and Logistics Panel

The objectives set by the Irish Council for Science Technology and Innovation (ICSTI) for the Transport and Logistics Panel were to:

- Consider the movement of both goods and people
- Take into account the interaction of road, rail, sea and air transport be they provided publicly or privately
- Consider the attendant issue of urban congestion.

The success of this Technology Foresight initiative depends on the engagement of stakeholders in enterprise, education, research and government - drawing on the knowledge and insights of people from a range of relevant areas and developing an integrated and coherent view of the future based on that broad input.

The Panel consisted of people representative of the diverse views and interests, which constitute the transport and logistic sectors.

In preparation for the first meeting, members of the Panel were sent a copy of the 'Terms of Reference' and a copy of 'Transport and Logistics' Chapter 7, Shaping Our Future, Forfás 1996 – this document served as the basis of the discussion on the state of transport and logistics today.

The Panel or sub-group of the Panel met on a total of nine separate occasions. It consulted with the wider sector interests through a questionnaire which dealt with the rating of uncertainties and soliciting of appropriate strategies. Two consultative workshops were held at which participants were invited to develop strategies, test them against scenarios and identify the research and development implications.





2. Current Situation

Transport and Logistics are for the most part opposite faces of the same coin, having completely separate issues which need to be addressed, yet at the same time being inextricably linked and very much dependent upon each other.

Given Ireland's geographical position, we are heavily dependent upon air and sea transport to service our industrial, commercial and tourism sectors. Our membership of the European Union and the funding programmes, such as the Operational Programme on Peripherality (OPP 1989-1993) and the Operational Programme for Transport (OPTRANS 1994-1999) have had an enormous impact in assisting our economy meet the challenges and opportunities presented to us in both domestic and international markets. The use of the funding, amounting to over IR£1 billion, contributed towards the provision of essential infrastructure through investment in roads, rail, sea and air transport and logistics.

The most noticeable phenomenon in Irish society over the last ten years has been the increase in the number of private cars. Figures show car ownership in 1991 at 250,000 and by 1998 this had increased to 500,000. The effect of this has been to create increased congestion in urban areas, necessitating the introduction of measures such as clearways, 'Operation Free-Flow' and car clamping of illegally parked cars in an attempt to combat the traffic congestion problem.

The recent redesign and creation of bus and cycle corridors on some of the main arterial roads leading into the main cities has so far only had the effect of extending the times of 'rush hour' traffic to earlier in the mornings and to later in the evening time. Until such time as the public transport system is in a position to effectively and efficiently handle the extra volume of commuters, the slow moving single line traffic, adjacent to empty bus corridors, will continue to grow. In addition to the psychological effects that commuting in rush hour is having on employees, the congestion in our cities and towns is also impacting negatively on the logistical supply chain management of the 'on-time' delivery of goods/products.

The improvement in the national road network has reduced the travel time and increased the comfort in travelling from the outskirts of one city to another. Better management and integration of public and private facilities for travelling door to door, is required, not greater speed. While the quality of main road travel has greatly improved, mobility for people living in isolated rural areas has become a major problem. A steady decline has occurred over the years in rural public transport and in rural service provision. It is not surprising that those people who have missed out on the dramatic rise in mobility and accessibility that car availability confers have a strong and justified sense of grievance.

In the course of the past ten years the financial injections of capital, provided through European programmes, and directed to upgrading infrastructure, locomotives and rolling stock has had a positive effect on rail mobility. The investment in trains and the improvements to stations on the DART and other Dublin suburban lines have attracted an increasing number of customers providing them with a more efficient means of getting to and from work.

However, in general the rail networks are under utilised, particularly for the movement of goods. Proximity to road, rail and seaports should form part of the criteria for development, when siting new factories or plants.

As an island nation we are more heavily dependent on maritime transport than most other EU members states. To date, the vast majority of the EU grant aid funding of IR£54 million has gone into the five strategic ports of Dublin, Dun Laoghaire, Rosslare, Waterford and Cork on the east and south coast key shipping corridors, connecting us with ports in the UK and





mainland Europe. The main shipping route continues to be the 'Central Corridor' across the Irish Sea between Dublin Bay and Holyhead in North Wales. In addition, shipping plays a vital role in tourism and passenger transport and represents over 30 per cent of all passenger movements.

From a logistical perspective investment in our ports has resulted in overall reductions in time and costs. However, there are a number of issues which are in urgent need of resolution. For example, shipping, dependent upon tides and weather conditions is by its nature a 24-hour industry. However, the dry land operational interface within our ports are bound by restrictive working practices, resulting in a break in the logistical supply chain management.

In Dublin the majority of road freight leaving the port travels on an east-west axis, whereas the commercial/business traffic using the city travels on a north-south axis compounding the congestion at either the city centre or the major road intersections leading into the city.

Tourism is becoming one of this country's main industries with two of the three state-owned airports enjoying extraordinary growth in passenger numbers. The problem for most travellers is that in some instances, the actual time spent in the air is shorter than the time spent getting to and from the airport. In addition to the congested access routes, valuable ground space in and around our airports is being taken up by long and short term parking facilities. A fully integrated, intermodal system of transport, such as a railway spur/link line connecting the airports to the centres of our cities is urgently needed.



3. The Forces of Change

The definition of transport and logistics used in the report 'Shaping Our Future' (1996) was:

'A term used by business to refer to the total management of the flow of raw materials, information and goods between suppliers and customers, integrating transport, infrastructure, services and information technology to maximise cost effectiveness, reliability, speed and flexibility of both.'

Given the broad nature of this definition and the many facets of industry encompassed by it, it is not surprising that there are numerous and diverse forces of change impinging on the area of transport and logistics. For example, the shift in the nature and size of the national employment base, the potential effects of currency harmonisation, the technological changes impacting on aircraft and shipping have separately and collectively the potential to bring about major changes in the sector.

In a situation like this where there are many unpredictable forces of change, the Panel adopted the 'scenario planning' methodology. Central to this methodology is the identification of a range of driving forces and the uncertainties associated with them. Six broad categories of driving forces were identified for the current exercise: political, economic, scientific and technological factors, environmental and resource factors, societal issues and educational issues. The uncertainties associated with each category are listed in Table 1 in summary form.

The present exercise identified five core uncertainties

- Political will to tackle problems in the sector
- Ireland's long term economic position
- Availability of funding/resources for the sector
- Influence of environmentally driven change
- Scientific and technological advances.



Table 1. Categorisation of Driving Forces and Associated Uncertainities

Driving Forces		Uncertainities
Political	1 2 3 4	Lack of political will at national level Future stability of EU Major political upheaval 'world wide' Ireland Sans Borders - Population 5m
Economic	5 6 7 8 9 10 11	Ireland's economic position vis-à-vis the rest of the world Global economic stability Shift in industrial/employment base Effects of Euro (e) harmonisation Allocation of funds/resources Adverse economic change driven by environmental concerns Cost of social provision of transport
Science & Technology	13 14	Future of science and technology Changes in aircraft/shipping technology with regard to speed/volume trade-off Fuel cell alternative to oil Mode and location of production Environment seriously damaged
Environment & Resources	17 18 19 20	EU energy tax on transport Cost of safety Resolution of 'polluter pays' principle Impact of local lobby groups on future infrastructural development
Society	21 22 23 24	Shifting cost benefit expectations – general public Labour shortages – basic grade Travel diminishing as consumer activity Innovations to grab public attention
Education	25 26	Availability of properly educated work force Investment in education

The core uncertainties were then used as a basis for the development of three scenario worlds as outlined in Appendix IV.

The scenarios worlds then become a powerful tool to test strategies suggested by both the Panel and the individuals from the sector who participated in the consultative workshops.

In developing the scenario worlds it was not the Panel's intention to predict the future; rather the scenarios are an attempt to create plausible settings for what might occur, based on experiences of the present and the past - see Appendix III for further details.





4. Strategic Options

The Transport and Logistics Panel identified the following strategic question:

"How do we ensure that our transport and logistics systems are appropriate in the year 2015?"

The Panel identified a total of 19 possible strategies to address the strategic question posed.

As part of the wider consultative process these 19 strategies were discussed, expanded and redefined at consultative workshops held in July and October 1998 and as a consequence, have been distilled into the following strategic options for consideration by:

- 1. Government
- 2. Government and Sectors
- 3. Sectors
- 4. Public and Private Research Agencies.

4.1 Government

Strategic Options for consideration by Government

• Appointment of a Minister for Transport, incorporating Logistics

The Panel has identified a lack of strategic co-ordination in the whole of the transport and logistics sectors. The current position, whereby responsibility for the relevant policy is divided among three government departments (with others having related peripheral functions) is not conducive to such co-ordination.

The Panel suggests that responsibility for all aspects of road, sea, air and rail transport be centralised in one department. This single department should be given total responsibility for the planning and efficiency of the system as a whole, with the objective that the needs of the user, not special interest groups or organisational forums, be given absolute priority.

The department should actively promote Ireland as an international centre of excellence for transport and logistics systems and endeavour to attract at least one global player to establish its European operations centre in Ireland.

• Integrate national regional planning demand and enforcement powers to an authority such as a National Transport Authority.

There is a pressing need for the establishment of a national body to plan and co-ordinate the integration of both national and regional future planning demand.

• Accelerate the implementation of current strategies.

When engaged in the consultative process, many of the practitioners involved in transport and logistics, when approached for their views and opinions, willingly contributed, whilst at the same time expressing cynicism.





In recent years a wide range of commissions have carried out a considerable amount of work examining and evaluating our transportation and logistical needs. Their reports have suggested/proposed a wide range of strategies. All sectors of the transport and logistics industry expressed considerable frustration at the lack of implementation to date of strategies recommended by the National Development Programme, Dublin Transport Office, Shaping Our Future, etc.

As a matter of urgency the Panel recommends that as a first step, in preparation for the future, all current strategic proposals should be re-evaluated with a view to their immediate implementation.

Of particular importance in this context are the recommendations in 'Shaping Our Future' that (i) the development of logistics in all its aspects should be accorded a significantly higher priority in the national and enterprise policy framework, (ii) State support should be available to enhance the development of the systems logistics capabilities of firms and to develop firms specialising in the provision of logistics services.

4.2 Government and Sectors

Strategic Options for consideration by Government and Sectors

• Creation of a National Transport and Logistics - Government/Business Forum.

The need for the creation of a National Transport and Logistics – Government/ Business Forum was identified and it is suggested that the forum should inter-alia examine:

- Infrastructure ownership
- The mix of public/private partnership private operators social tenders
- Free public transport emphasising the issues of quality and cost
- The separation of infrastructure provision from services and/or operations
- The monopolisation of service provision
- The promotion of institutional entrepreneurship
- The lowering of barriers of entry
- Professional awareness of strategic foci
- The privatisation of infrastructure maintenance.

It is further suggested that the forum should operate as a proactive task focussed body, facilitating the relevant experts to work on specific tasks as and when the need arises.

4.3 Sectors

Strategic Options for consideration by the Sectors

• Creation of a national umbrella organisation for the whole transport and logistics sectors.

A primary need of the transport and logistics sectors is the formation of an industry driven, umbrella body which would provide a forum at which the issues critical to the development of the sectors can be fully debated. The importance of such a body derives from the current fragmentation of the sectors, the lack of focus on value-added services and the lack of integration and co-operation between transport providers.





This organisation could also function as the representative body for the sectors on the suggested Government/Business Forum.

4.4 Research by Public and Private Agencies

Strategic Options for consideration by Public and Private Research Agencies

• Research and technology development for intermodal transport.

Intermodality is a subject that surfaces at all levels of transport and logistics. The issues range from integrated ticketing for use of public transport services in urban areas to providing infrastructure to allow transfer of freight from road to rail and vice versa. Although technology is available to address these areas little has been implemented in Ireland. Streamlining the existing technology might be the subject of further research.

• Research into road maintenance.

Maintaining the standard of the road infrastructure in the future will need a significant level of funding and planning. Research in this area will concentrate on improvements to the materials used in roads with the emphasis being on better performance of pavements under heavier axle loadings. The method of pavement design is also an area needing improvement - moving from recipe type designs to performance based methods similar to those currently used in the US. Prioritisation of investment in maintenance in terms of long term economic benefits is also an area which requires further work.

• Telematics research- advanced traveller information and transport systems.

A considerable programme of research has been undertaken in the telematics area to date, funded primarily by the EU DRIVE programme. Technology is available and has been validated but there appears to be a reluctance to adopt it on a global scale. Speed governors for cars are an example. Although the technology is available and is used in heavy goods vehicles there has been a reluctance to introduce this for private cars primarily on the basis of interference with the individual's freedom. This problem underlines many of the difficulties in providing solutions to transportation problems. Technological innovations continue in route guidance, information provision on route congestion, tracking of vehicles and road pricing. Technology may provide the solution, yet political and public will is the critical factor in their uptake.

In relation to the movement of goods there is a critical need to use the emerging Information and Communications Technologies (ICT) to facilitate 'Just in Time' delivery of customised products at competitive prices. The remoteness of Irish manufacturers from their major market places increases demands on both inbound (supply chain management) logistics and outbound (distribution and active warehouses) systems and it is only by increasing the usage of sophisticated ICT based systems that competitiveness can be maintained. Research in the general area of Intelligent Transport Systems (ITS) in relation to the management of ports, airports, transhipment and transporting cargo in an intermodal environment may be of significance given our economic dependence on international transport.

• Research into demand management of all modes of transportation.

Demand management is the key to successful movement of people and goods in all transport modes. In most cases, the optimum level of demand to match the capacity of the system is difficult to achieve because transport demands tend to be dynamic and not readily quantifiable on a real-time basis. For example, in the case of urban people movement, demand cannot be strictly related to tangible variables such as cost, as other





Report of the Transport and Logistics Panel

issues are also considered important. In an ideal world, a real-time optimisation between demand and supply would be the solution. Research in this area will continue to aim towards this goal.

Demand management in relation to the transport of goods must also be a focus for research. The imbalance between inbound and outbound goods, with the consequence that up to 15 per cent of container movements in and out of Dublin Port are empties, requires real-time optimisation approaches of comparable complexity to those used for transport of people.

• Social science research combined with research and technology development.

Ireland would appear to have copied the American approach to urban sprawl development. There is a significant demand for road space on the main arterial routes during peak periods on weekdays and there is evidence to suggest that the peak periods are expanding to cater for earlier start times. The large increase in car ownership and what appears to be a corresponding increase in car usage means that Dublin has already reached the congestion levels predicted for 2000. Public transport is lacking in terms of attractiveness, capacity and reliability to encourage its use instead of the private car.

The benefits of compact urban living are beginning to become evident. There appears to be a trend developing amongst young professionals to live in inner city apartment complexes, close to where they work with a corresponding reduced need for use/ownership of private cars. However, this approach to car ownership is an exception rather than the rule. For example, with the completion of the M50 motorway in the greater Dublin area, the new Lee tunnel in Cork or the bypass road at Athlone, there will be an attraction for developers to create large industrial and shopping complexes at major road intersections.

Research for the future should address the following: socio-economic, behaviourial and environmental factors affecting choices between public and private modes of transport and measures to stimulate greater use of public transport.

• Social science and environmental research into land use development

The lucrative rezoning of low priced agricultural land into high priced green field housing development sites has resulted in affordable living accommodation being located further and further away from the centres of our cities and towns.

Due to the speed at which these developments are taking place local authorities and public service companies have difficulties in providing adequate support services.

Research into the relationship between transport demand and land use to provide the basis for better planning of land use with respect to the resultant service demands, particularly transport, is central to this problem. Acceptable residential densities are also an issue to be addressed here.

4.5 Educational Implications – Strategic Option

• The further development of an integrated "ladder" approach to training and development education in the fields of transport and logistics.

The Panel acknowledged the current educational provision provided by the third level colleges and institutions and strongly recommends that provision be made for the creation of an integrated "ladder" approach to training and education, whereby the skills



needed in logistics management are supplied through certificate, diploma, degree, and postgraduate diploma and masters degrees.

The Panel further recognised that education in transport planning and engineering is critical given the importance of these issues in managing transport networks, particularly in urban areas.





5. Recommendations

In its paper, 'Transport Strategy Needs Beyond the Year 2000', the IBEC Transport Council states that "the long term objective is to build transport and logistics systems to world class standards so as to ensure the competitiveness of Irish industry and tourism well into the next century".

The Technology Foresight Transport and Logistics Panel fully supports and endorses this objective and would recommend that the strategic options listed below and detailed in the previous chapter be given immediate consideration and response by those to whom they are addressed.

5.1 Government

- Appointment of a Minister for Transport, incorporating logistics
- Integrate national/regional planning demand and enforcement powers to an authority such as a National Transport Authority
- Accelerate the implementation of current strategies.

5.2 Government/Sectors

• Creation of a National Transport and Logistics - Government/Business Forum

5.3 Sectors

• Creation of a national umbrella organisation for the whole transport and logistics sectors

5.4 Research by Public and Private Agencies

- Research and technology development for intermodal transport
- Research into road maintenance networks
- Research into demand management of all modes of transportation
- Telematics research advanced traveller information and transport systems
- Social science research combined with research and technology development
- Social science and environmental research into land use development

5.5 Educational Implications

• The further development of an integrated 'ladder' approach to training and development education in the fields of transport and logistics.





Appendix I Panel Membership

Dr. Brendan Goldsmith, Chairman	President	Dublin Institute Technology
Eamon Moran, Deputy Chairman	General Manager	Aer Rianta
Peter Rigney	Industrial Officer	ICTU
John Dunne	CEO	South Dublin Chamber of Commerce
Eoghan Hynes (Snr)	Managing Director	Hytherm Navan
Christopher McNulty	Director, Education and Training	Chartered Institute of Transport
Paul Keely	Operations Manager	Bus Eireann
Brendan Lynch	Manager - Logistics	Telecom Eireann
Dr. Stefan Bungart	Director General	National Institute for Transport & Logistics
Professor Simon Perry	Head of Department	Department of Civil, Structural and Environmental Engineering, TCD
Dr. Margaret O'Mahony	Project Manager	Department of Civil, Structural and Environmental Engineering, TCD
Declan Allen	Lecturer	Dublin Institute of Technology
Maria Kyne	Research Fellow	The Centre for Project Management (University of Limerick)
Aine O'Donoghue	Managing Director	Taylor NelsonSofres & MRBI
Karen Gannon	Assistant Director	Transport Policy, IBEC
Gerry Glynn, Secretary		Gerard Glynn Associates



Appendix II - Workshop Participants

Mr. Pat Bell	ENTRAC – Energy Transport Actions
Mr. Liam Brennan	TNT
Mr. Paul Brennan	BBT
Mr. John Burns	TIDE
Mr. Michael Byrne	Dublin Corporation
Mr. Steve Carter	SDS
Mr. Michael D'Arcy	Irish Association of Express Carriers
Mr. Patrick Daly	Logitech Solutions
Mr. Hugh Finlay	Enterprise Ireland
Mr. Paudge Flynn	Bus Eireann
Mr. Michael Giblin	Icarus Marketing
Mr. Gerry Harper	Department of Computer Science NUI - Maynooth
Mr. John Henry	Dublin Transportation Office
Ms. Roisin Keary	Smurfit Business School - UCD
Mr. Kevin Kelly	National Avionics Ltd
Mr. Tom Kennedy	Technology Ireland
Mr. Bob Laird	Aer Rianta
Mr. Brian Lee	Celtic Forwarding Ltd
Mr. John Lennon	Consultant - Transport
Mr. Pat Maguire	Aer Lingus
Mr. Pat Mangan	Department of Public Enterprise
Mr. Colm McAuley	Bord Bainne
Mr. Raef McGiollarnáth	CIE Group
Mr. Cyril McIntyre	Bus Eireann
Mr. Robert McKinley	North Meath Community Development Association
Mr. Aidan Murphy	Allegro Ltd
Mr. Robert Murray	UPS
Professor W.D.E. O'Sullivan	Trinity College Dublin
Mr. Charles Smith	Consultant
Mr. Ned Stack	Tedcastles Oil
Mr. Edward Sweeney	National Institute for Transport and Logistics





Report of the Transport and Logistics Panel

Mr. Gerry Trant	Nautical Enterprise Centre	
Mr. John Whelan	Communications Workers Unions	
Dr. James Wickham	Department of Sociology TCD	
Mr. Tom Williams	Williams Express Ltd	

Appendix III – Methodology

The Consultative Process

The Panel engaged in a proactive consultative process to ensure that all relevant constituencies were afforded an opportunity to make submissions and provide feedback. The purpose of the consultation was to provide assistance to the Panel when determining the appropriate strategies and priorities which should be employed, and also to define the critical aspects of the strategies, which would require policy interventions.

The panel decided to hold two workshops.

Consultative Workshop – July 1998

The first consultative workshop was held on 14th July in the National Institute for Transport and Logistics, DIT, Aungier Street, Dublin.

The aims of the workshop were to:

- Identify the sectoral needs arising from the strategic question
- Evaluate the strategies proposed by the Panel
- Identify research and technology development implications
- Test the proposed strategies against the established scenarios.

Consultative Workshop – October 1998

The second workshop was held on 15th October, in Wilton Park House and targeted those engaged in supporting the needs of the sectors particularly in the fields of research and technology development.

The aim of this second workshop was to:

- Discuss the 'Movement of Goods' and the 'Movement of People' in relation to the strategic options proposed at the sectoral workshop held on 14th July
- Identify the possible research and technology development implications arising from the findings.





Appendix IV – Scenarios

Scenarios are creative, credible stories that have been crafted around core uncertainties. They are used as neutral vehicles to assist unbiased long term thinking. They are also used to test proposed strategies to provide perspective.

Three scenarios were developed by the Panel, based on the identified core uncertainties, and used to test strategies. They were:

- Steering The Tiger
- 80s Action Replay
- Riding The Downturn.

The following are short extracts of the scenario stories used by participants to test strategies at the consultative workshops.

Steering The Tiger

By 2015 a long period of sustained economic growth has made Ireland a prosperous, selfconfident nation. Social problems persist and the enforced adaptation to a multicultural society has been uneasy – but there is now a more creative and radical approach to solving problems.

As the centenary of the Easter Rising approaches....../

80s Action Replay

Ireland has drifted back into economic crisis and a volatile, confrontational political system is unable to cope. Pandering to minor interest groups in order to win popularity has badly affected the level of public capital investment and growth. Public cynicism is all-pervasive. Lack of competitiveness has led to stagnation and unemployment.

In 2015 Ireland is paying the price for years of/

Riding The Downturn

Ireland in 2015 is a nation with a strong sense of purpose. We no longer have any illusions about our place in the great scheme of things but it is believed that through solidarity, long term investment and economic planning we can cope with the volatility of the international economic outlook. A proactive administration is striving to create a strong community spirit.

In 2015 Ireland's national sovereignty is greatly reduced by/