An Analysis of Strategic Planning in Delivering Infrastructure in Ireland

Noel Murtagh

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An Analysis of Strategic Planning in Delivering Infrastructure in Ireland

Noel Murtagh

2018
An Analysis of Strategic Planning in Delivering Infrastructure in Ireland

Noel Murtagh

July 2018
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<th>Description</th>
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<tr>
<td>BMW</td>
<td>Refers to Border, Midlands and Western Regions of Ireland.</td>
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<td>EIB</td>
<td>European Investment Bank</td>
</tr>
<tr>
<td>ECB</td>
<td>European Central Bank</td>
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<tr>
<td>ERDF</td>
<td>European Regional Development Fund</td>
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<td>EU</td>
<td>European Union</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>IDA</td>
<td>Industrial Development Authority (Ireland)</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>MNC</td>
<td>Multi National Corporations</td>
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<td>NAMA</td>
<td>National Asset Management Agency</td>
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<td>NDP</td>
<td>National Development Plan</td>
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<td>NRA</td>
<td>National Roads Authority</td>
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<td>NSS</td>
<td>National Spatial Strategy 2002 - 2020</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>SBCI</td>
<td>Strategic Banking Corporation of Ireland</td>
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<td>SIF</td>
<td>Strategic Investment Fund</td>
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<td>SME's</td>
<td>Small, Medium sized Enterprises</td>
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<td>TII</td>
<td>Transport Infrastructure Ireland – Formerly the NRA</td>
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<tr>
<td>Troika</td>
<td>Term used to refer to European Union, International Monetary Fund and the European Central Bank who provided state funding after 2009 recession.</td>
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<td>VFM</td>
<td>Value for Money</td>
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Declaration

This dissertation is the result of my own work and includes nothing which is the result of collaboration except where indicated in the text. It has not been previously submitted to any university or institution for any degree, diploma or other qualification.

Signed: _____________________________

Date: _______________________________
Dedication

This dissertation is dedicated to my wife Orla and my daughters Maeve, Anna and Ciara. It would not have been possible to complete this master’s programme without their continued support and encouragement.
Acknowledgements

First and foremost, I would like to thank Dr. Angela Wright and Mr. John Meylor of Cork Institute of Technology for their excellent tuition and dedication throughout the masters programme. Their support and enthusiasm for the master’s programme over the past two years is apparent and is very much appreciated.

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I would also like to thank my immediate study group Niall Lynch, Ela Moreau, Danny O’Shea, Tara Skehan and Orla O’Driscoll for their continued support and friendship over the past two years.
Abstract

The 2009 recession was the most severe recession in the history of the state and led to bankruptcy and subsequent bailout of the Irish state by the European Union, International Monetary Fund and the European Central Bank (collectively known as the ‘Troika’). In this context, this research looked at the role of strategic planning and investigated did Ireland lack a strategic planning perspective in economic development, with a particular focus on the delivery of critical national infrastructure. This research also looked at the impediments to the delivery of infrastructure in Ireland, the benefits to national growth with investment in infrastructure and the threats that Brexit poses to Ireland in the delivery of infrastructure in a post Brexit environment.

A qualitative research method was adopted to investigate the research question and to address the objectives of this study. The research comprised of semi-structured interviews with Planners, Engineers, Business Leaders, an Economist and Senior Politicians.

The research found that Ireland has historically performed poorly in terms of strategic planning. A key finding of this study is the importance of prudent financial management to ensure steady funding streams to National Development Plans. The study also highlights the current planning process requires significant reform to enable infrastructure to be delivered in a timely fashion and efficient fashion. The research shows that public funding is preferred over private funding and the selection of Public Private Partnerships (PPP’s) should only be used where appropriate. Likely changes to EU financial reporting rules may also impact on the use of PPP’S by government departments going forward. Finally, this study concludes that the recently launched Irish Government ‘Project Ireland 2040’ National Development Plan, represents a generational opportunity for sustainable strategic development in Ireland and the necessity to implement the plan in full and to adequately resource the plan is key. This study will of benefit to Planning Policy Makers, Politicians, Local Authorities, National Bodies and Business Leaders involved in the delivery of infrastructure in Ireland.

**Keywords:** Strategic Planning, Infrastructure, Spatial Planning, National Development Plans.
1.1 Introduction

The purpose of this study is to investigate and research whether or not Ireland lacks strategic planning in the delivery of critical national infrastructure. This study will also look at the role of infrastructure in terms of promoting national economic growth. This study is important as it addresses a gap in the literature on the role of strategic infrastructure development in Ireland. The study will also research the impediments to delivering infrastructure in Ireland and will endeavor to recommend steps to improve the delivery process. The research seeks to investigate how infrastructure is delivered in an Irish context and will seek to drill down to establish new data and provide a contribution to knowledge in this area. The research will also look at the role played by infrastructure in lessening the impacts on the economy in recessionary times. This is particularly relevant given the severity of the 2009 recession and the dramatic impact it had on the Irish economy. This study will also assess the potential threats and the likely impacts on infrastructure delivery and growth in Ireland in a post-Brexit environment.

This study seeks to gain insights into the topic by interviewing senior key stakeholders who currently operate in the area of infrastructure delivery but from different perspectives. This will include; Politicians, Planners, Engineers, Economists and Business Representatives. A number of themes have been developed to explore and research the topic of infrastructure delivery. These include the role of infrastructure, the importance of strategic planning in delivering sustainable economic development, to establish what are the current impediments to the delivery of infrastructure, the role of Public Private Partnerships (PPP's) in delivering public infrastructure and an assessment of the Ireland 2040 National Development Plan. A number of interesting findings will be highlighted in chapter 4 and a summary of these findings, key recommendations and conclusions are highlighted in chapter 5.

1.2 Background and Context for this Study

Infrastructure

Aschauer was among the first to link public sector capital investment with economic growth. The resulting research indicated that 10% increases in either efficiency or capital investment increased output per capita by 2.9% over two decades (Aschauer,
Egert et al (2009), also highlighted the link between the provision of infrastructure and higher growth rates and found a potentially higher impact in countries with initially lower levels of infrastructure provision. Importantly, the World Economic Forum (2017), has highlighted the inadequate supply of infrastructure as a critical factor in Ireland's capacity to compete internationally. In addition, Engineers Ireland (2017), also outline that Ireland continues to spend less as a proportion of our GDP compared to the other EU 28 states.

Strategic Planning
Sctt (2006), outlines that strategic spatial planning initiatives such as the Buchanan Report of 1968, were largely ignored until 1990's when Ireland's impressive growth caused a refocus on regional balanced and sustainable development. Indeed, O'leary (2015), outlines that Ireland's economic development strategy since 1970 was not as a result of strategic economic planning but was a response to crises in the 1950's and 1980's. This study seeks to investigate these areas relating to infrastructure delivery and strategic planning from an Irish context. The outcome of this study will benefit policymakers and state agencies involved in the financing, planning and delivery of national and regional infrastructure projects. The study will also benefit elected representatives and private industry leaders who operate in the field of promoting and delivering large scale infrastructure developments.

1.3 Historical Context – the Performance of the Irish Economy since the Foundation of the State (1922).

In order to carry out research in the area of strategic planning in Ireland and the development of the national economy, it is important to review the performance of the economy from a historical perspective. This section looks at the performance of the Irish economy since the foundation of the state and attempts, in a chronological order, to establish a pattern of how and why the Irish economy developed as it did. It catalogues the various challenges faced by the state and looks at the policies that it followed from independence in 1922 to present times. It provides a background context for historical evidence or lack thereof, of government economic planning and long term strategic planning. It also discusses views of various economists on the lessons that Ireland could learn from its past performance.
1.3.1 'The Early Years' after Independence - 1922 to 1930's

After independence, Fitzgerald (1998), outlines that Ireland needed to develop as a new nation 'new ways of thinking' and from 1922 to the 1930's Ireland chose protectionism and self-sufficiency. Ireland closed itself off economically from the outside world and achieved this with high tariffs on goods entering into the country (Fitzgerald, 1998). According to Collins (1994), Cumann na Gael who were in government at that time, followed a conservative economic strategy in the early years of the state and largely continued with how the British ran the Irish economy before independence. According to Collins (1994), this was not surprising given the continued existence of the Irish Civil Service after independence was modeled on the British system. Collins (1994), also highlights the roles of Joseph Brennan and J.J Mc Elligott as successive Secretaries of the Department of Finance, both had previously worked in the British Civil Service. Collins (1994), outlines in her view this brought good and bad aspects to the civil service. In terms of good, a high standard of personal and public integrity was established very early in the Irish Civil Service. In terms of bad, it brought a very conservative economic outlook with little room for innovation. The worldwide economic depression in 1930 led to a rise in protectionism and Fianna Fail under Eamon De Valera ran a protectionist election campaign for the 1932 general election (Collins, 1994).

Although there have been contrasting views on the performance of the Irish economy during the first 10 years of the state, Cullen (1972), outlines that the state did well to balance its budget and increase exports by the end of the 1920's. However, later research by O'Grada (1994), revises this view and paints a much 'gloomier picture' when Ireland is compared with similar open economies. Mc Court (2014), describes Ernest Blythe, the first Minister for Finance for the new State who held the position from 1922 to 1932, as a man with 'limited' regard to economics. Mc Court's opinion was that Blythe's personal interest was more on Irish cultural revitalization and in particular the Irish language. This position is supported by the April edition of 'The Nation' newspaper (a publication at that time supporting the political position of Sinn Fein) published in 1927 which declared:

It would, however, be an extravagance to accuse the free state government of having an imperialist economic policy, they have no coherent policy at all.

(In Mc Court, 2014, pp.487)
Indeed, Mc Court (2014), outlines that the government’s economic record during that period has been recognized as a major reason for its loss of power in the election of 1932.

1.3.2 The ‘Age of De Valera’ - 1930’s to late 1950’s

This era was to be dominated by the war years and the rebuilding of European economies post war. Geiger (2000), outlines in the post war period what occupied the Irish government was its positioning with the United States and its European Recovery Program (ERP) also known as the Marshall Aid Plan. Historians have generally accepted that Ireland received a Marshall Aid loan rather than a grant because of its position of neutrality during the second world war (Keogh, 1990). However, Davis (1998), makes the case that historians have ‘uncritically accepted’ the view of the Irish Government that it could not repay a dollar loan. He also points out that the terms on offer were favourable. According to Davis (1998), historians also ignore the fact that the US congress had insisted that a large portion of the ERP should be given as loans rather than grants, thus hard decisions had to be made by US aid administrators.

Geiger (2000), also points out that although the Irish Economy remained under industrialised at this time, the Irish Economy seemed remarkably strong compared to other western economies in the summer of 1947. Geiger (2000), challenges the idea that Ireland’s economic weakness was self evident to contemporary external observers and outlines that Irish living conditions compared not surprisingly (given Ireland’s neutrality during the war) favourably with conditions in most other European countries in the immediate aftermath of the war.

Geiger (2000), further states that in contrast to other European economies in the post war period Ireland did not pursue a growth ideology as evidenced by the publication of their ‘long term Programme’ of 1948. The aim of most European countries was to increase food production, the aim of the Irish Programme was to restore output to pre-war levels. Geiger (2000), concludes that Ireland rejected the materialism of the American model for the idealism of the 'Irish model'. He defines the 'Irish model' as democratic, Christian with social principles, a right to self-determination and a respect for family life. This resulted in a failure to develop an economic strategy to remove the
bottlenecks thus limiting future growth and a failure to close the productivity gap between the leading European economies. Under De Valera’s protectionism Ireland developed into one of the more highly protected economies in Western Europe. Research showed that as late as 1966, the average level of protectionism in Ireland was as high as 80% (Guiomard, 1995). As the De Valera era came to an end in the 1950’s, emigration had risen to over 400,000 and the Irish government under Taoiseach Sean Lemass started to dismantle protectionism as an economic policy (Breznitz, 2007; Guiomard, 1995).

1.3.3 The Age of Lemass and beyond from late 1950’s

In 1958, Sean Lemass asked T. K. Whitaker Ireland’s most prominent civil servant and General Secretary of the Ministry of Finance to draft a new economic framework (Breznitz, 2007). This was Ireland’s first comprehensive economic policy and the policy proposed ‘hard headed’ economic policy of productive assessment and entrepreneurship led by the private sector (Guiomard, 1995). Whitaker argued against job creation in favour of expansion in productive economic activity and argued against tax increases (Guiomard, 1995). Whitaker placed serious emphasis on industry linkages as his industrial policy coupled incentives to export with supports for the exporting industry through investment in infrastructure, up-skilling of the labour force and implementing a regional policy to further enhance linkages (Walsh and Whelan, 2010).

Guiomard maintains that Whitaker’s strategy was not followed and high taxes, large national debt and renewed emigration ‘duly arrived’ in the 1980’s, (Guiomard, 1995). Under Lemass however, Ireland’s economic and industrial policy shifted towards Multi National Corporations (MNC’S) based industry designed to generate employment, (Breznitz, 2007). Breznitz further highlights the distinction the state made between Foreign Direct Investment (FDI) and local industrial capital. FDI was perceived as ‘market enhancing’ and worthy of special treatment while local industry capital was seen as ‘market distorting’ and was not favoured (Breznitz, 2007).

The economy did boom in the 1960’s. However, according to Guiomard (1995) this was not due to government planning, tax breaks nor IDA grants, but as a result of growth in Ireland which finally connected to the buoyant world economy, (Guiomard, 1995). O’Leary (2015), outlines that Ireland has been very successful in attracting FDI into the
country. However, O'Leary (2015), states that there has never been a long term strategy to attract FDI but more of a reaction to employment crises. Furthermore, O'Leary outlines that this lack of strategy was a key weakness of government as it is likely that such a structure would have fostered links from FDI to indigenous industry where in fact the opposite happened (O'Leary, 2015).

1.3.4 The 1980's 'Dire Straits'

Breznitz (2007), outlines that the focus on bringing MNS's to manufacture in Ireland ended with the 1980's job crises (termed a 'growth without jobs' crises) and a failure of fiscal expansion policies. According to Breznitz this left Ireland in 'Dire Straits'. Emigration reached very high levels and 44,000 people emigrated from Ireland in 1989 alone. Fitzgerald (1998), describes the 1980's in Ireland as a period of prolonged fiscal retrenchment associated with falling employment and little or no growth in output. Whelan (2013), also highlights the unique demographic pattern in contrast to our European neighbours that existed in Ireland during the 1980's. Ireland had a much delayed 'baby boom' compared to rest of Europe. The Irish 'baby boom' started in the 1970's and peaked in the 1980's. Therefore, according to Whelan (2013), the Ireland of the 1980's was supporting a very large population below working age.

Bailey & Lenihan (2015), also agree with Killeen (1975), that Ireland needed FDI for economic growth. They agreed that a reliance solely on indigenous firms would not have delivered sustainable economic growth. However, their argument is that an over reliance on FDI without a corresponding commitment to indigenous firms, also failed to deliver in terms of long term sustainable growth. In effect the Irish Government, to a large degree, ignored the indigenous (SME Sector) until the mid 1990's and this represented a 'key failure' in term of lessons learnt from the Irish economic performance (Bailey et al, 2009).

This is further supported by Breznitz (2007), where he compares the indigenous Irish software sector who had achieved global prominence (e.g., Baltimore Technologies in data security) to that of computer hardware companies (e.g. Dell computers) favoured by the Irish FDI based policy. Support to the indigenous software companies appeared to suffer from a 'misconception' of goals and methods to such an extent that there was no growth in this sector by 2007 (Breznitz, 2007). Breznitz points out that neither Dell
nor Microsoft had high added value activities such as R&D in Ireland at that time (Breznitz, 2007). Indeed the analysis by Breznitz was supported by the loss of 1,900 jobs in Limerick when Dell transferred production to Poland in January 2009 (nytimes.com). Breznitz (2007), compares the successful but differing approaches of the economies of Ireland, Israel and Taiwan and contrasts Ireland’s approach to FDI with that of Taiwan. Breznitz outlines that Taiwan saw MNC’s as a tool to reach their goal of a strong globally competitive indigenous industry. Israel’s approach was not based on job creation but on creating science based industries and high level R&D. The conclusion arrived at was that the focus in Ireland on job creation rather than creating indigenous business from FDI led to less of an emphasis on innovation and R&D (Breznitz, 2007).

1.3.5. The Age of the ‘Celtic Tiger’ 1990’s to 2007

Whelan (2013), attributes the rise of the Irish ‘Celtic Tiger’ economy to a number of factors. These included; Ireland’s demographics, Government restraint in spending in the late 1980’s, improvement in productivity and from the 1990’s onwards and net migration back to Ireland. These factors according to Whelan (2013), created an ‘extraordinary period of growth’ in the Irish economy and from 1987 to 2007 employment rose from 1.1 million to 2.1 million with economic growth an average of 6.3% per year (Whelan, 2013).

Whelan (2013), outlines that by 2007 most of the factors that had generated growth had played themselves out and the period of ‘catch up’ growth had come to an end. Whelan (2013), also outlines that irrespective of an international slowdown or a domestic housing crises, Ireland entered into the latter part of that decade with an economy that was likely to slow down.

1.3.6 The Recession 2009 - To Date

Kelly (2006, 2007), had warned of the potential insolvency of Irish Banks i.e., banks having too much exposure to one source of risk, given the level of over valuation of the Irish Housing Market. Whelan (2013), outlines that these warnings were ignored by both the Government and the Central Bank. Whelan (2013), further states, that the housing crises of 2008 resulted in significant losses in income tax revenues which created a fiscal crises. The combination of this fiscal crisis and the banking crises led to
the European union, The European Central Bank and the International Monetary Fund to what has become known as the ‘Troika’ bailout in November 2010. Ireland had officially become bankrupt at that time (Whelan, 2013). The Government reaction to these crises was to introduce drastic cuts in spending along with tax increases. Whelan (2013), outlines that these discretionary tax increases and spending cuts amounted to a value of €28.8 billion. This represented 18% of 2012’s GDP or €6,270 per person and represents one of the largest budgetary adjustments seen anywhere in the advanced economic world in modern times (Whelan, 2013).

Ruane (2016), outlines that since the 2009 recession Ireland has recovered quicker than countries such as Spain, Portugal and Greece who were similarly affected by the recession. Ruane (2016), highlights that Ireland acted quickly to balance the budget deficit and introduced public sector reform. Ruane however, highlights the biggest risk to the economy where the cuts to the public capital program. This has subsequently led to a shortfall in public housing (now at crisis levels) and a large infrastructure deficit (Ruane, 2016).

1.4 Justification for this Study

The following key points outlines the justification for this study:

- The researcher has 25 years experience of delivering infrastructure in Ireland.

- There is a gap in the literature in terms of infrastructure development from an Irish perspective.

- Excellent timing in terms of the recovery in the Irish Economy in recent years and the launch in March of this year (2018) of Project Ireland 2040, National Development Plan.

- It is also opportune to assess the potential impacts of Brexit on the delivery of infrastructure in Ireland.
Kilduff (2006), suggests that an important area of inspiration for research comes from your involvement with issues in which you are personally interested. The researcher has been involved in the delivery of infrastructure projects in Ireland for the past 25 years and was keen to look into this research area as part of this thesis project. The researcher worked in the industry in November 2011, when the then Minister for Transport, Leo Varadkar, cancelled a number of major infrastructure projects (Regan, 2011). The researcher has personal interest in establishing if this ministerial decision was inevitable, given our perilous financial status, or is another example of what O'Leary (2015), refers to as 'short terminism'.

1.5 Research Question, Aims and Objectives

In research we work from knowing less towards knowing more


A good research question forms the basis for good research as it enables the researcher to identify what he or she wants to know, according to Kinmond (2012), identifying what one wants to know more about is vital.

The aim of this study is to investigate how infrastructure has been delivered historically and currently in Ireland and to analyse the delivery process in terms of highlighting any impediments to delivery. The researcher's primary research question is as follows: Does Ireland lack strategic planning in delivering infrastructure? According to Saunders et al (2012), once the primary research question is known this may lead to more detailed questions or the definition of research objectives. The researcher has followed this process and has developed four objectives from this primary research question:

- Establish the benefits of infrastructure in economic development and define what is the most critical infrastructure in Ireland today.
- Review Ireland's performance in strategic planning in delivering major infrastructure and review Ireland's current plans to deliver it.
• Identify any impediments in delivering major infrastructure projects in Ireland today.

• Identify the best methods of funding for strategic infrastructure.

One of the main objectives of this study is to make key recommendations to policy makers in terms of the delivery of infrastructure and in the preparation of national development plans. In particular key recommendations will be made in terms of removing current impediments and ensuring an efficient funding and planning process. Another objective of this study is to highlight further areas of research that could be undertaken to build on this study's findings.

1.6 Research Focus of the Study

This study is primarily concerned with the efficient delivery of Infrastructure Projects in Ireland and implementation of Strategic National Development Plans. This study focuses on the expert knowledge and experience of senior figures involved in the delivery of infrastructure in Ireland today whose opinions have been sought by way of nine semi-structured interviews. This study is divided into five chapters as outlined as follows:

Chapter 1 The current chapter seeks to introduce the research subject, the primary research question and the aims and objectives of the study. The chapter also outlines the justification for this study.

Chapter 2 Provides a review of the key academic literature in relation to strategic planning, the benefits of infrastructure and the funding mechanisms available to state bodies.

Chapter 3 Outlines the research methodology used for this study and the underlying philosophies or paradigms underpinning the study. The research design and data collection methods are also outlined in this chapter

Chapter 4 This chapter presents the key findings from the primary research undertaken using the themes as outlined below:
• What is critical infrastructure?
• Impediments to the delivery of infrastructure
• 'Brexit'
• Strategic planning in Ireland
• Current planning regulations
• Project Ireland '2040' National Development Plan
• The Irish political System
• Lessons from the Recession (2009)
• Funding infrastructure in Ireland

Chapter 5 This chapter discusses the research findings in this study using the same themes outlined chapter 4 for consistency. The research question is answered and the aims and objectives of the study are addressed. Finally conclusions and key recommendations for practice and future research are made.
Chapter 2  Literature Review

2.1  Introduction

The literature review will first attempt to define what is meant by strategic planning or strategic management and look at the research that has been carried out in this field with reference to public bodies. Second, the review will look at the role of infrastructure in developing national economies. Lastly, the review will look at the role played by public private partnerships and other methods of funding national infrastructure projects.

2.2  Strategic Planning

The English Oxford Dictionary defines strategy as:

\[ A \text{ plan of action designed to achieve long-term or overall aim } \]

(Oxforddictionary.com)

Stonehouse & Snowden (2007), describe Michael Porter as a 'Founding Father' of strategic management and credit him with establishing it as an academic discipline. Stonehouse & Snowden (2007), further highlight the role Michael Porter has played in the area of developing competitive strategy for business organisations and for nations and regions.

Mintzberg (1994), criticizes strategic planning on the basis it attempts to systematize strategic thinking and strategy formation and he makes the distinction that strategic planning occurs 'around' the strategy formation process rather than within it. He proposes that systematic design does not promote innovation (in Mintzberg, 1994, Mintzberg and Quinn, 1996). Mintzberg (1994), summarizes Porter's view of strategy or the design school of strategy, as one of 'Position' – the determination of products in a market and contrasts this to Drucker's view of strategy as 'Perspective' (an organisations way of doing things).
Mintzberg (1994), further outlines that in terms of Porter’s Position, strategy looks down at the spot of position, where the products meets the customer and then looks out to the external marketplace. Whereas, according to Mintzberg (1994), strategy from a Perspective viewpoint looks inside the organization and also up to the overall vision of the enterprise. Mintzberg believes that both definitions are needed and states that a ‘new position needs to be consistent with the existing perspective’ (Mintzberg, 1994). In Stonehouse and Snowden (2007), Porter acknowledges Mintzberg has raised interesting and provocative ideas but rejects his premise that strategy will ‘somehow emerge’ from the learning process.

In Argyres & McGahan (2002), Michael Porter emphasized the importance of design in strategy and outlines the essence of any good strategy is to choose consistent choices. Argyres & McGahan (2002), further argue that Porter’s study of successful companies and organisations outlines that there is some small element of emergent strategy or accidental strategy in every company. However, unless the organization sees the design or ‘how the pieces fit together’ it will not be successful (Argyres & McGahan, 2002).

In Allio and Fahey (2012), Magretta outlines the importance of having a strategy to begin with to provide a process in which to innovate and outlines that this removes the risk of ‘chasing one fad after another’. Magretta further outlines the importance of not necessarily copying good ideas from other organisations but to see how that idea could be adapted to your needs i.e. not to ‘jump on every trend’ but to tailor it your organisations strategy (In Allio and Fahey, 2012). According to Batra et al (2017), who carried out research on the Small to Medium Enterprise (SME) sector in India, rather than restricting creativity and innovation, a positive relationship between strategic planning and innovation was found, supporting Porter’s viewpoint.

2.3 The difference between a Good and a Bad Strategy

In Abraham (2012), Richard Rumult highlights the difference between good and bad strategy and defines a good strategy as “a plan of action backed up by a cogent argument”. Rumult further argues that many organisations mistake goals for strategy and contends that a good strategy is to choose a path and reject others, which Rumult acknowledges maybe difficult politically and organizationally (in Abraham, 2012). Joan
Magretta in Allio and Fahey (2012), outlines that a strategy is meaningless unless it makes clear not only what it will do but also what the organization will not do.

Rumult in Cunningham (2011), distinguishes between strategy and ambition, a strategy has an achievable objective that makes a difference to an organization, an ambition in contrast may not be achievable and even if reached, may not make a difference to the organisation. Rumult in Abraham (2012), outlines that bad strategy is more than just the absence of good strategy, typically a bad strategy is long on goals but short on action. Rumult outlines three ‘manifestations’ of bad strategy namely; ‘fluff’ e.g. slogans and grandiose statements that fail under any scrutiny. Second, ‘Failure to face the challenge’ e.g. not dealing with the actual issue or obstacle in the organisation’s way and lastly ‘mistaking goals for strategy’ e.g. big visions bordering on the unattainable (in Abraham, 2012).

According to Allio (2015), it is strategy that matters more than leadership, companies which adopt good strategies and implement them excel. Allio (2015), highlights studies reviewing the performance of leaders of companies such as Apple, Microsoft and Intel and outlines the success of Steve Jobs, Bill Gates and Andy Grove was not attributable to their ‘social skills’ or leadership skills, but all three are credited with being masters of strategy. Allio (2015), further outlines that rapid effective strategic decision making requires information and knowledge to be dispersed throughout an organisation thus diminishing the role of the leader.

2.4 Strategic Management and the Public Sector

An important key to success for public organisations is identifying and building strategic capacities to produce the greatest public value for key stakeholders at a reasonable cost.

(Bryson et al. 2007 pp. 702)

Hansen & Ferlie (2014), outline that certain models of strategic management could be used in public organisations of differing types and reviewed Porters (1980, 1985, 1996), strategic ‘positioning model’ discussed earlier and the Resource Based View (RBV) of strategy as developed by Barney (1991, 1995). The RBV model focuses on exploiting and developing the organizations own resources (Hansen & Ferlie, 2014). Bryson et al
(2007), outline that the resource based approach is ‘relevant and potentially very useful’ in the public sector and highlight its application to the National Health Service in the UK.

According to Hansen & Ferlie (2014), both strategic models promoted by Porter and Barney can be ‘fruitfully’ applied to the strategic behavior of public organisations. Hansen & Ferlie (2014), caution, however, the usefulness of these management theories is dependent on three key factors found in public organisations namely; (i) the degree of administrative autonomy (ii) where there is performance based budgeting and (iii) more market-like conditions, the higher the degree of these ‘key dimensions’ the more likely that the strategic models discussed above are applicable.

Mulgan (2009), outlines that a weakness with some public bodies is they put their own processes at the centre of their core and end up losing sight of what they need to provide as a public body. Mulgan (2009), suggest that public bodies that are planning for the future or creating strategies need to focus simultaneously on three different horizons of decision making namely; short-term or day to day crises, example computer crashes in critical departments, medium-term existing policies and programmes where most spending and delivery is already set, and long-term horizon where new policies and strategic innovations become more critical to survival and success, for example climate change.

Favoreu et al. (2016), highlight the complex strategic process that combines rational, collaborative and political decision making within public sector management. Favoreu et al (2016), also stress the importance for managers in public bodies to improve their skills in the management of inter-organisational networks. Ugboror et al. (2010), contribute that the importance of good working relationships between staff (those involved planning), division managers and senior management, indeed, the location of strategic planning staff close to top management is essential in developing strategic plans for the whole public sector organisation. According to Ugboror et al. (2010), the strategic planning process of public sector organisations must also be mindful and react to environmental changes and challenges.
2.5 Strategic Spatial Planning

Faludi (2001), contribute that during the late 1990's and into the 2000's Europe's interest towards the formulation of spatial planning for territorial development grew.

Albrechts et al. (2003), highlighted the driving forces behind spatial strategies included, the competitiveness agenda, socio-cultural movements and lifestyle changes, the reassertion of regional and local identities and reform of government organization. According to Marsden (1999), fundamental transformations have taken place in Europe's rural economy and society and Scott (2006) describes the new rural localities as:

Places where people from outside come in to consume a diversity of things that now make and constitute rural space.

(Scott, 2006, pp. 813)

Moseley (2000), believes that this transformation involved a fundamental shift in rural policy by the EU from predominantly agriculture - sectorial support policies, to territorial development and emphasizes on spatial development. Murray (2003), outline the completion of the European Spatial Development Perspective (ESDP) in 1999 and its political endorsement, has heralded a new interest in the spatial planning process. Scott (2006), highlighted that the ESDP introduced new concepts including 'polycentric urban development' and 'balanced spatial development' into the planning vocabulary in Ireland.

According to Murray et al (2003), the Buchanan Report published in 1968 was the first attempt at regional planning in Ireland and proposed growth centres at both national and regional level. Johnson (1994), outlines that its recommendations became diluted by IDA and Government policy to disperse development and new industrial employment to small towns and rural areas. Scott (2006), contributes that interregional policy was increasing ignored for national policy and it was not until Ireland's impressive growth in the 1990's did the issue of regional balance re-emerge.
According to Scott (2006), the publication of the National Spatial Strategy 2002 – 2020 (NSS) outlined for the first explicit national spatial framework. Scott (2006), further outlines that much of the NSS dealt with the future role of Dublin and the need to promote other regional clusters to counterbalance its dominance.

Seo (2009), highlights the difficulties in addressing regional development imbalances from a South Korean perspective, where the capital region around Seoul has dominated economic development in South Korea for over forty years. Seo (2009), argues that the South Korean Government plans to address the imbalance have not addressed the problem. Indeed, Xiao (2010), outlines that between 1998 and 2006 Seoul similar to Dublin, underwent a property bubble with apartment prices doubling over that period.

Gkartzios and Scott (2009), further argue that the new spatial planning approach has not penetrated down to the implementation level of the local authority and outline that old and existing planning policies still apply. Gkartzios and Shucksmith (2015), outline how Ireland and England faced similar challenges implementing spatial planning but contrast how both countries dealt with the issue of rural planning. Gkartzios and Shucksmith (2015), describe Irish and English planning as 'spatial anarchy' and 'spatial apartheid' respectively. The term spatial anarchy is a reference to the apparent lack of Irish planning control from a rural housing perspective and the term spatial apartheid to the English policy of preservationist or strict rural planning control, which they argue has led to affordability issues in English rural wards (Gkartzios and Shucksmith, 2015).

### 2.6 Porter and the Competitive Advantage of Nations

Huggins and Izushi (2015), state that Michael Porter began to look at the topic of national economic development and this resulted in what they term his seminal work entitled The Competitive Advantage of Nations, Porter (1990). According to Huggins and Izushi (2015), this work 'laid the foundations' to how economic development develops in countries and highlight in Porter’s view, the critical role played by productivity and the requirement to increase productivity over time within a country.
The role of government according to Michael Porter is;

*To set policies that will provide the foundations of human resources, science and technology and infrastructure to allow upgrading*  
(Porter, 1990, pp. 683)

Huggins and Izushi (2015), continue that Porter also assessed a number of national economies including South Korea, Sweden and the USA in which he outlined issues which needed to be addressed. Wilson *et al* (2014), outline Porter specifically did not outline policies for each country, as in Porter’s view the countries themselves where best placed to address the issues raised, as each country was unique in terms of it’s own history, social structure and institutions, all of which would influence its feasible options. According to Huggins and Izushi, (2015), Porters analysis highlights the fact that many of the forces driving economic growth and productivity were not evenly distributed across nations but are clustered within particular regions. Porter (2003), believes that the concept of clusters helps to capture important linkages, knowledge spillovers, skills and information.

Wilson *et al* (2014), reviewed the performance of the these nations 20 years after Porter’s work and outline that Porter’s assertions were very ‘perceptive’ and they highlight that if there was a surprise in their analysis, it was the dominant role that government has had on development. Wilson *et al* (2014), note that governmental policies are important in creating a competitive advantage for all industries and Porter’s analysis is applicable to all countries, not just those confined to Porter’s study group. Wilson *et al* (2014), confirm the South Korean Government has done well, the Swedish experience is more neutral, but they note the strong performance of the Swedish economy in comparison to other EU nations. Wilson *et al* (2014), however, concur with Porter and Rivkin (2012), that the US Government has failed to tackle the inherent weaknesses in the US economy and this has led to the weakening of the US economy and in their view the US economy (in 2012) has lost much of ‘the edge’ it had at the time of Porters work in the 1990’s.
2.7 Infrastructure and its Relationship with Growth

Aschauer (1989, 2000), outlined strong links between public sector capital investment and long term growth from an American context. Aschauer (1989), highlighted the parallel decline between productivity growth rate and the (US) government capital spend post 1970 in the USA. According to Aschauer (1989), particularly significance should be attached to 'core' infrastructure such as roads, water and wastewater systems. Easterly and Rebelo (1993), further argued that transport and communication capital investment, in particular, is strongly correlated with growth.

Bannister and Berechman (2000), suggest a more cautious approach and claim that infrastructure development is of lessor importance in terms of economic growth and argue it's impact varies on what kind of investment decisions are taken and according to Ter-Minassian (2005), what level of infrastructure is already provided. Notwithstanding this viewpoint, Aschauer (2000), asks three pertinent questions to economic growth and the role played by capital investment. First, does how much public capital you have matter? Second, does how you finance public capital matter? Finally, does how you use public capital matter? The answer to all three questions according to Aschauer (2000), is yes and his research outlines empirical evidence to support his position.

Carlsson et al (2013), highlight that there is a tendency to assume that all infrastructure projects promote growth however, they outline that the 'efficacy of infrastructure spending' is mixed. Egert et al (2009), outline that the key differences between infrastructure investment and other forms of investment appraisal is that it is subject to 'network externalities'. Carlsson et al (2013), further argue that because of this complexity, there exists no single prominent macroeconomic growth theory (MGT) that fundamentally deals with the economic effects of national infrastructure investment. However, Carlsson et al (2013), outline a number of economic models that to some extent, deal with infrastructure investment economic effects. These include; how infrastructure changes human health, the congestion effect (the impact that constraints have on levels of public investment in infrastructure and how this affects growth) and finally, a spatial model which forms a network of linked regions further developed into the New Economic Geography with Growth Model (Carlsson et al, 2013).
According to Carlsson et al (2013), none of these models allows for a comprehensive treatment of the economic effects of large-scale infrastructure investments and for this reason they state that most projects are currently assessed on a cost benefit analysis. Regardless of the difficulty with modeling the effects of infrastructure investment, Carlsson et al (2013), that all forms of infrastructure reduces firms costs and thus increases productivity and they further argue, it increases overall efficiencies in industry transmission and energy consumption. According to Lakshmanan (2011), it is this linkage between transportation trade and productivity that is taken as the prime effect of infrastructure on growth. In addition, Cronin and Mc Quinn (2014), highlight in terms of Irish fiscal policy, the timing of fiscal policy measures can have different impacts on the economy than at a point in the economic cycle where output is operating above potential. According to Cronin and Mc Quinn (2014), this should be considered by policy makers when developing national economic plans.

The Organisation for Economic Co-Operation and Development (OECD) outline in a review of international infrastructure requirements, that quality infrastructure is a 'key pillar' of international competitiveness (OECD, 2012). The OECD (2012), further argue that infrastructure networks reduce the effect of distance, help to integrate national markets and provide necessary gateways and connections to international markets. According to OECD (2012), there are two critical factors which countries need to get right if there are to plan and develop infrastructure at the right place and at the right time. First, the importance of national policy frameworks and second, the importance of assured funding (OECD, 2012).

2.8 Recent levels of Capital Expenditure

According to Duggan (2013), public sector investment in Ireland has a tendency to copy the direction of private sector investment, i.e., in good times, a good fiscal position can induce capital expenditure and highlights the National Development Plans (NDP) between 2000-2006 and 2007-2013 as examples of this. Duggan (2013), further outlines that Ireland’s impressive motorway network is an example of public investment during the Celtic tiger era. Duggan (2013), outlines that infrastructure development and investment is beneficial to all including, citizens, the private sector with the promotion of productivity and also importantly from an Irish context, regional development. In challenging financial times or in recessionary periods Morgenrath
(2009), outlines that governments ‘invariable’ choose the easier option of reduced capital expenditure rather than maintain expenditure and increase taxation.

Duggan (2013), highlights that capital spend in Ireland has fallen from €8.6 billion in 2008 to €3.5 billion in 2012. Duggan (2013), further outlines that Ireland's overall investment rate for both the public and private sector, which averaged 22% of GDP over the 1971 – 2008 period, has fallen as low as 10% in 2011 and 2012. Duggan (2013), contrasts these figures to the 1980’s recession where even at the height of the recession the overall investment rate averaged at 22.5%. At 10% the Irish investment rate in 2011 was below Iceland (12.7%), Greece (16.2%), Portugal (17.9%) and Spain (21.6), (Duggan 2013). In Eolas (2017), Danny McCoy Chief Executive of Ibex, outlined that Ireland is in danger of becoming a society of ‘private affluence and public squalor’ outlining the position that while private wealth is increasing public infrastructure stock is being diminished.

2.9 Public Private Partnerships

According to Reeves (2005), and Duggan (2013), the Irish Government in recent decades has increasingly sought to use Public Private Partnerships (PPP’s) for two reasons. First, to use private sector funding to deliver major infrastructure schemes more quickly and second, to reduce the ‘up-front’ capital required with the traditional procurement model (Reeves, 2005 and Duggan, 2013).

Reeves (2005), outlined that competition, efficiency, risk allocation and innovation was also sought under the PPP process. Duggan (2013), argues that the strongest argument for their use in recent times has been removing large capital investments sums off the Government balance sheet. Engel et al (2010), argue that PPP’s should be treated as standard government investment and remain on the government balance sheet. Engel et al (2010), highlight the example of the UK Government in 2009, where less than one quarter of PPP contracts committed remained on the balance sheet, even though the UK Government has financial obligations of £91 Billion up to 2032 as part of the PPP contracts committed. Duggan (2013), further highlights that Eurostat rules may possibly change in the future to reflect this view.
According to Hall (2008), the private sector should not be assumed to deliver greater efficiency than the public sector and suggests that the assumption on efficiency should be neutral between the public and private sector. Hall (2008), also states that the transfer of risk to the private sector does not always take place and when it does it may entail additional costs which may be as high as 25% more than the conventional public contract. Furthermore, Hall (2008), and Engel et al (2010), question the assumption that private sector can finance investment more cheaply, they outline that in most countries, governments can borrow money at lower rates of interest than the private sector, their view is that a PPP scheme has a built in premium. Duggan (2013), from an Irish perspective, highlights that the Irish Comptroller and Auditor General recommended that value for money studies be carried for two completed projects in 2012, the Limerick Tunnel and the Clonee-kells road schemes. This was requested to establish a clear and transparent picture of actual costs and to draw lessons for future PPP projects in Ireland (Duggan, 2013). Reeves (2011), also questions the Department of Environment and Local Government strategy for explicitly stating the consideration of PPP as the preferred procurement method for the Irish water services sector. Reeves (2011), outlines that the Irish Government should learn from criticism of the UK experience with PPP’s (referred to as Private Finance Initiatives in the UK), where one of the principal criticisms was that PPP’s were imposed on decisions makers as the 'only show in town' and in some cases led local authorities to reject its own value for money analysis. In the view of Reeves (2011), there has been a failure of the Irish PPP program to meet the challenge of transparency and accountability.

Notwithstanding the above, Brian Murphy Chief Executive of the National Finance Development Agency in Eolas (2017), highlights the success of PPP schemes delivering on a range of infrastructure schemes, including the motorway network, schools, primacy care centers and the Dublin Convention Centre. Murphy further states that there is a considerable interest shown by investors and the outlook for more PPP’s in Ireland is good (Eolas, 2017).
2.10 Other Methods of Funding – Infrastructure Bonds and Pension Funds

According to Duggan (2013), infrastructure bonds already exist as a sub-set of the bond market and although they display certain differing characteristics when compared to standard corporate bonds, Duggan outlines that it is arguable if they can be considered a separate class of asset. Eagar (2008), from an Australian context, makes the case that infrastructure should be considered a standalone asset class and suggests that infrastructure is the ‘ultimate inflation proof’ asset class. Eagar (2008), highlights that most toll road schemes have a specific formula that pick up any increases in inflation with minimum lag, even when there is an increase in the toll there is minimal loss or drop in traffic figures. This combined with typically high Earnings Before Interest and Taxes, Depreciation and Amortization (EBITDA), according to Eagar (2008), insulates toll schemes from inflationary impacts. Eagar (2008), further highlights the average rate of EBITDA for selected toll schemes as 77%, this he outlines compares very favourably when compared to the average EBITDA margin of other industrial companies at 14% (Eagar, 2008).

Duggan (2013), outlines that pension funds may face restrictions on the type of bonds they can invest in and may be limited to investing into only particular high rated investment bonds. According to Duggan (2013), without financial incentives, investors are typically less willing to invest in infrastructure during the ‘design and build’ stage, preferring the less risky operational phase when more stable cash flows are predicted. Notwithstanding this Duggan (2013), also highlights that the pension industry in Ireland indicated in 2009 that they may be in a position to make up to €6 billion for infrastructure investments.

The president of the Canadian Pension Plan Board, Mark Wiseman in Duggan (2013), indicated that they were looking for ‘boring and predictable’ long term cash flows and that there is a large amount of capital available if governments can reduce ‘idiosyncratic’ risk by the type of concessions offered and the type of regulatory environment. The Organisation for Economic Co-Operation and Development (OECD) in 2012, also highlighted that pension funds are well resourced and potentially larger investors in transportation infrastructure. However, projects our required to have risk levels consistent with fund managers rules and responsibilities to investors (in OECD, 2012).
2.11 European Funding

Fitzgerald (2018), states that Ireland has benefitted significantly from joining the EU and has seen a rise in its living standards reaching and exceeding the European Union (EU) average. The EU Commission estimate that Ireland's net gain from EU budgets has been €44.6 billion since 1976 (in European Commission, 2018). Duggan (2013), highlights that EU funding typically in the form of European Regional Development Funding (ERDF) or cohesion funds, contributed to Ireland's economic development. It has however, diminished as Ireland's living standards converged to the EU norm (Duggan, 2013). This is supported by Fitzgerald et al (2003), who carried out a mid-term review of the National Development Plan (NDP) 2000 to 2006, which indicated that EU funding contributed to less than 8.6% of total funding under the plan at that time. Duggan (2013), also distinguishes the North and West of Ireland as having a lower per capita GDP than the Southern and Eastern regions and are likely to still benefit for EU funding. Duggan (2013), further argues that these available funds could be channeled into the Atlantic Corridor road network for example. In Per.Gov.ie (2014), Brendan Howlin the then Minister for Public Expenditure and Reform, confirmed €250 Million from the European commission for the Border, Midlands and Western regions in 2014 (known as the BMW regions).

Duggan (2013), also outlines that the European Investment Bank (EIB) has also contributed significantly to Irish infrastructure, loaning €500 million to Irish projects in 2012. Tanguy Desrousseaux of the EIB in Eolas (2017), has outlined that the EIB bank funds projects across the EU and in various sectors, further investment in Ireland is planned and they have provided funding in Ireland for various projects including Dublin Port Development, Hospitals, flood protection schemes and investment in Trinity College and University College Dublin. According to the EIB, it has provided €18 billion to support infrastructure projects across the EU prioritizing investment in energy efficiency, transport, water and sustainable urban infrastructure (in eib.org). O'Donovan (2017), outlined that Fingal County Council in North Dublin had secured backing from the EIB for a €70 million credit line to support capital projects over a 5 year period. O'Donovan (2017), further highlights that similar support was given from the EIB to both Limerick City and County Councils to the Limerick 2030 project.
2.12 Strategic Investment Bank / National Development Bank

The London School of Economics (2013) Growth Commission, highlighted critical factors for long term growth including skills, infrastructure and innovation. They further highlighted that to deliver infrastructure and innovation, finance is a critical obstacle and that an Infrastructure Bank (IB) could help to deliver long term growth (The London School of Economics, 2013).

The advantages as outlined by the London School of Economics (2013), that such a bank would have, are the following: reduced policy risk, develop sector-specific skills, establishing partnerships with the private sector and a strong multiplication impact (its investments have effects much larger than the capital it puts in). Ramsay and Lloyd (2010), outline from an Australian context, that a national investment bank is a crucial instrument for facilitating planned investment to meet effective demand, they also highlight this ‘socialised bank’ would be able to offer low interest rate loans for socially productive infrastructure. Duggan (2013), states that the rational for an Infrastructure Bank in the UK is applicable to Ireland but on a smaller scale. The Irish Labour party during the 2011 Irish general election in Labour (2011), highlighted that a Strategic Investment Bank could provide capital and funding for Small, Medium sized Enterprises (SME’s), facilitate investment in innovative Irish companies and raise finance for national infrastructure projects.

In late 2011 the Irish Government launched the Strategic Investment Fund (SIF) which according to Brendan Howlin, the then Minister for Public Expenditure and Reform, was to become the forerunner of the Strategic Investment Bank (in Duggan, 2013). According to RTE.ie, the Irish Government set up the Strategic Banking Corporation of Ireland (SBCI) in May of 2014 to help fund SME’s with funding from the SIF, the European Investment Bank and Germany’s KfW bank. Nick Ashmore the Chief Executive Officer of the SBCI in Burke-Kennedy (2015), outlined the bank had three primary objectives. First, to provide a long term stream of low cost funding to the SME sector. Second, to repair market failure (of the Irish banking system) and third, to drive competition in the states depleted banking sector. Financing for infrastructure development in Ireland was not listed by Mr. Ashmore as a primary objective (Burke-Kennedy, 2015).
2.13 Summary

The literature started with a review of what is meant by strategic planning, its role in delivering infrastructure and the importance of spatial planning. The subject of national economic development was also discussed with reference to Michael Porter's seminal work on the competitive advantages of nations. The discussion then moved on to discuss the benefits of infrastructure development and its relationship with national economic growth. Finally, methods of funding were discussed in terms of their application including a discussion on the role played by Public Private Partnerships. The researcher noted that there is a gap in the literature in terms of strategic planning and the benefits of infrastructure from an Irish context.

As part of the literature review the role of the former Minister for Public Expenditure and Public Reform, Brendan Howlin TD (currently leader of the Labour Party) was noted and was selected as an interviewee for this research because of his role managing all Government spending during the lifetime of the last government. Similarly, the important role of Dr. Edgar Morgenroth (then an Economist with the ESRI currently a Professor of Economics with Dublin City University), had during the 2009 recession and the subsequent troika bailout period was noted and was also selected as an interviewee for this research. Primary research in chapter 4 and chapter 5 will further investigate the role of infrastructure, its delivery, its method of funding and the role of strategic planning in Ireland. The next Chapter will look at the methodology, underlying philosophies (paradigms) and research design for this thesis.
Chapter 3  Methodology

3.1  Introduction

The purpose of this chapter is to outline the alternative methodologies available to the researcher, justify the approach taken and describe the process and participants in the study. All research methods have been considered and the most appropriate method selected to achieve the objective of the study.

Research methodology is the process of conducting research in a structured manner. There are various different types of methodologies which can be used when conducting research such as qualitative and quantitative. For more comprehensive research, a combination of both can be used as in mixed methods. Qualitative research concerns itself with interpretations and understanding experience whereas quantitative research is factual such as statistics, facts and figures.

This chapter will also contain academic references from literature which aided and guided the researcher in the methodologies chosen, outlined the research philosophies underpinning each methodology and shaped the research design.

3.2  Underlying Philosophies - Paradigms

Researchers must choose a research paradigm to ensure a strong research design. A paradigm is defined by Fossey et al (2002), as a system of ideas or world view, used by a community of researchers to generate knowledge. A paradigm is a set of assumptions, research strategies and criteria for rigorous analysis that are shared by that community of researchers.

The researcher has considered the two main paradigms. These are the positivistic and the post-positivistic paradigms. These are used in creating a research design to best answer the research question.
3.2.1 Positivism

Positivism depends on the beliefs that human society, like the natural world, is subject to fixed laws and that behavior can be determined (Wisker, 2008). Positivist researchers believe that they can reach a full understanding based on experiment and observation (Ryan, 2006). Wisker (2008), outlines that if a researcher believes the world is definable, provable (especially in terms of human behavior) and can be described in a rigid manner and with unchanging facts, then you might well be undertaking positivistic research.

According to Ryan (2006), the ideas, assumptions and beliefs associated with positivism constitute what is called an epistemological base. Levers (2013), defines epistemology as the study of knowledge, a way of understanding and explaining “how I know and what I know”. Ryan (2006), further outlines that it is concerned with the “nature of knowledge, what constitutes valid knowledge and what can be known”.

Ryan (2006), suggests that in recent decades, increasing attention is falling on the limitations of the epistemological base of positivism. Ryan (2006) further outlines that opposition to positivist epistemologies has come from psychology, anthropology, ethnography and developments in qualitative research. Critics of positivism see all events and phenomena as connected and this kind of knowledge, so long rejected by the west, has now become revitalized (Ryan, 2006).

3.2.2 Post-positivism

According to Ryan (2006)

*The post-positivists stance asserts the value of values, passion and politics in research and research in this mode requires the ability to see the whole picture, to take a distanced view or an overview.*

Ryan (2006), pp. 18

According to Wisker (2008), if the researcher feels that the world is essentially indefinable, shifting in meaning based on whom, when and why anyone carries out and adds the meaning, then you might be undertaking post-positivistic research of some
kind. Table 3.1 outlines a summary of the key characteristics of quantitative and qualitative research (Ryan, 2006).
Table 3.1 Quantitative & Qualitative Research Characteristics (Ryan, 2006: page 21)

*Quantification* can be useful, because it can

- provide a broad familiarity with cases;
- examine patterns across many cases;
- show that a problem is numerically significant;
- often be used as the starting point for a qualitative study;
- provide readily available and unambiguous information.

However, it

- cannot look at individual cases in any detail;
- is usually highly structured, which prevents the researcher from following up unexpected outcomes or information.

*Quantitative research* has positivist features when it:

- tries to link variables (features which vary from person to person);
- tries to test theories or hypotheses;
- tries to predict;
- tries to isolate and define categories before research starts and then to determine the relationships between them.

*Qualitative research*

- seeks to provide an in-depth picture;
- generally deals with smaller numbers than quantitative research;
- tries to interpret historically or culturally significant phenomena;
- can be used to flesh out quantitative data;
- tries to isolate and define categories during the process of research;
- is appropriate when the questions posed by the researcher are difficult for a respondent to answer precisely;
- tries to illuminate aspects of people's everyday lives;
- values participants' perspectives on their worlds;
- often relies on people's words as its primary data.
3.3 Grounded Theory

Charmaz (2006), describes grounded theory as a set of systematic inductive methods for conducting qualitative research aimed toward theory development. Grounded theory is defined as follows:

*Grounded theory involves the progressive identification and integration of categories of meaning from data. It is both the process of category identification and integration (as method) and its product (as theory).*

(Openup.co.uk: pp 70)

Originally developed by Glazer and Strauss in the late 1960's, grounded theory arose out of the need for researchers to move from data to theory so that new theories could develop and any developed theory would be 'grounded' in the data from which it emerged rather than relying on other analytical methods (openup.co.uk).

Jeggels (2009), outlines that grounded theory research deals with the generation of theory on inductive strategies, where inductive analysis involves the generation of categories and themes from data. According to Saldana (2016), grounded theory is an analytic process that constantly compares small data units, typically collected from interviews, through a series of cumulative coding cycles, trying to achieve emerging category properties. Saldana (2016), further outlines that grounded theory works towards achieving a 'core' or 'central category' that represents what the research study is all about. Table 3.2 outlines coding strategies and methods process according to Saldana (2016).

According to Charmaz (2006), grounded theory coding of data creates the 'bones' of the researcher's analysis. 'Theoretical Integration' will then assemble these bones into a working skeleton. Importantly, openup.co.uk, outline that as grounded theory aims to realize and develop new context specific theories, category labels should not be derived from existing theories but should be grounded in the data. Ideally, category labels should be 'in vivo' or should utilize the actual words and phrases of the interviewees in the study.
3.4 The Research Design

Having established a research question and developed research objectives, a research design must now be developed. According to Collier and O'Mahoney (1996), a research design is one that minimizes bias and maximizes the reliability of the data. A research design depends on the purpose and nature of the research question. This implies therefore that a single design cannot be used to solve all types of research design.

In qualitative research, Creswell (2005), outlines the aims of the researcher is seeking to discover, explore, identify or describe rather than seeking to prove, influence, relate or measure. Qualitative designs are flexible rather than fixed. They are inductive rather than following a strict sequence or derived from an original position (Robson, 2011).
For the purposes of this study the researcher, having reviewed the available methods, will use a grounded theory, post-positivistic approach by means of qualitative data. It is intended to carry out interviews with stakeholders and experienced practitioners working in the area of strategic planning and delivery of infrastructure in Ireland. The type of interview conducted will be discussed further under the next heading.

3.5 Data Collection

According to Saunders et al (2012), Data Collection is used to explore a phenomenon, identify themes and put this in a conceptual framework and test this through subsequent data collection. Hox and Boeije (2005), outline that data collection within a qualitative design research project involves the collection of a large amount of data on a rather small but purposeful sample using techniques such as in depth interviews of focus groups. Hox and Boeije (2005), also define primary research data as new data collected for the specific research problem that adds to existing store of knowledge and where secondary data is defined as data or material that has been created by other researchers.

3.6 Interviews

Interviewing is considered to be the most widely used method of data collection in qualitative research studies (Gill et al. 2008). There are three fundamental types of interview used for research purposes including:

- Structured
- Semi-structured
- Unstructured

Structured interviews involve a limited set of available response categories for interviewees and usually contain few open ended questions, this contrasts with unstructured interviews where the interviewer composes questions as they come to mind (Bauer & Gaskill, 2000).
Semi-structured interviews loosely follow an interview guide which include a number of topics or themes for discussion. This format allows for questions to be changed and additional questions asked in accordance with the direction of the discussion with the interviewee (Corbetta, 2003). For these reasons the format of semi-structured interviews was adopted by the researcher to allow for discussion and to maximize the points of view raised by the participants coming from different perspectives. It was essential in the view of the researcher, to allow for open ended questions to promote good discussion on topics the participants themselves found important to the research question raised.

3.6.1 The Pilot Interview

In order to test the proposed interview questions under actual field test conditions it is necessary to carry out a pilot interview. The purpose of which is firstly to resolve any technical issues which may arise during the interview. These include ensuring first that recording devices are fully operational. Second, to establish feedback from the pilot interview on the questions asked, including for example:

- Are the questions easy to understand, are they the right length and is there any repetition in the questions?

- Are the questions in an orderly flow for the interviewee to follow?

- Are the questions relevant to the research question posed?

The researcher carried out a pilot interview with Mr. Tom Comerford, Senior Engineer with Cork County Council in late March 2018. The interview was carried out at a slow pace in order to capture all interview feedback and any recommendations or lessons learnt from the pilot interview.

The following points were made by Mr. Comerford

1. A definition of what the researcher means by infrastructure would be helpful.

   Mr. Comerford wasn’t sure whether there was a narrow transportation focus or
a more broad definition of infrastructure e.g. housing, broadband, water and other infrastructure utilities.

2. That questions 1 and 2 could be combined into one question.

3. That question 13 probably should read “financing” in place of “funding”.

4. Given the detailed nature of the questions, it was Mr. Comerford’s opinion that it would be more beneficial and informative for the researcher having the questions circulated prior to the interviewees. This had been the case Mr. Comerford.

Noting the feedback from the pilot interview above and in discussion with Dr. Angela Wright, a revised and amended questionnaire was prepared for subsequent interviews.

Given the detailed nature of Mr. Comerford’s replies and as outlined by Ritchie and Lewis (2003), pilot interviews do not need to be excluded from the data unless a very radical change of direction occurs. Accordingly it is proposed to include Mr. Comerford’s interview into the thesis data set.

3.6.2 The Main Interviews

According to Rowley (2012), the common questions of how long and how to conduct an interview are dealt with by two approaches - the theoretical and the practical approach to interviews. The theoretical approach outlines that the length of an interview and the number of interviewees depends on the nature of your research question, whereas with the practical approach, the researcher needs to be aware of the time that interviewees have available and also the number of willing participants which can be identified (Rowley, 2012).

The Researcher conducted a total of nine face to face semi-structured interviews, including a successful pilot interview with Mr. Tom Comerford. In conducting the interviews, due consideration was given to the manner and style in which the interviews were carried out.
According to Dilley (2000), it is important when carrying out interviews to:

- Listen to what the person is saying.
- Compare what the person is saying – to previous interviews and / or background studies.
- Be cognizant of time.
- Offer information to prompt reflection, clarification or further explication.

Dawson (2009), further outlines the following points when conducting an interview:

- Repeat and summarise answers, to aid clarity and understanding.
- Achieve closure, thank them and leave a contact number should they wish to get in touch regarding anything issues they have.
- Respect their confidentiality - do not pass on what has been said to third parties unless you have received permission to do so.

For this study the researcher carefully selected interviewees for their specific background and the interviewees ranged from politicians, planners, engineers and academics all interested parties in the delivery of infrastructure in Ireland. The interviews typically ranged between 30 to 40 minutes in length. The researcher was conscious of the time available to each interviewee from their busy work schedules. It was clear from conducting the interviews that each interviewee provided valuable and interesting data with particular relevance to their area of expertise. Table 3.3 outlines the interview schedule, names, and dates for each interview conducted as part of this research.
Table 3.3 Interview Schedule.

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Profession</th>
<th>Industry Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>14/03/2018</td>
<td>Tom Comerford</td>
<td>Senior Engineer, Water Services Capital Delivery</td>
<td>Public Sector</td>
</tr>
<tr>
<td>10/04/2018</td>
<td>Tim Lucy</td>
<td>Chief Executive Officer, Cork County Council</td>
<td>Public Sector</td>
</tr>
<tr>
<td>17/04/2018</td>
<td>Conor Healy</td>
<td>Chief Executive Officer, Cork Chamber of Commerce</td>
<td>Industry</td>
</tr>
<tr>
<td>23/04/2018</td>
<td>Peter O'Donoghue</td>
<td>Senior Engineer, Infrastructure Development</td>
<td>Public Sector</td>
</tr>
<tr>
<td>27/04/2018</td>
<td>Paul Murphy</td>
<td>Senior Planner, Cork County Council</td>
<td>Public Sector</td>
</tr>
<tr>
<td>02/05/2018</td>
<td>Edgar Morgenroth</td>
<td>Professor of Economics, Dublin City University</td>
<td>Academic</td>
</tr>
<tr>
<td>02/05/2018</td>
<td>Brendan Howlin</td>
<td>TD &amp; Leader of the Labour Party</td>
<td>Public Representative</td>
</tr>
<tr>
<td>10/05/2018</td>
<td>Pio Condon</td>
<td>Senior Planner, Planning Policy Unit</td>
<td>Public Sector</td>
</tr>
<tr>
<td>21/05/2018</td>
<td>Simon Coveney</td>
<td>TD, Tanaiste &amp; Minister for Foreign Affairs</td>
<td>Public Representative</td>
</tr>
</tbody>
</table>

3.7 Research Limitations

As with all studies there are limitations to the research which has been carried out and may be considered for future studies, these included for example:

- The first limitation is the lack of experience in conducting research of this kind. Certainly it is the first study of this magnitude that the researcher has been involved in. It has also been some time since the researcher was engaged in academic studies.
Another limitation has been finance and access constraints. The researcher would have liked the time and the finance to carry out more international studies as part of the research. In particular with reference to a number of other EU countries dealing historically and presently with strategic planning and infrastructure delivery and its comparison to Ireland's performance.

The qualitative research consisted of nine number interviews and although there was a wide spread of stakeholders involved, the small sample interviewed limits the scope and range of the research.

Although a number of high profile interviews were held with former government ministers, the current Tanaiste and Chief Executives of various organisations, the time required to arrange such interviews and the time available to conduct the interviews were further constraints on the researcher.

3.8 Summary

In this chapter the researcher has outlined and discussed the research philosophies and methods available in order to carry out the research process. This chapter has included a discussion as to why the researcher has chosen the post-positivism grounded theory using qualitative methods approach for this research project. This chapter also looked at data collection and outlined the basis for choosing semi-structured interviews for the data collection. Finally this chapter outlined the interviewees and also the limitations of the research project. Chapter 4 will discuss the data obtained from the above mentioned interviews.
Chapter 4   Research Findings

4.1 Introduction

This chapter presents the data obtained from the primary qualitative research carried out for the study. The primary research consisted of nine semi-structured interviews. The interviews were conducted with a cross section of Senior Engineers, Planners, Politicians, Managers and Economists who are all active in the field of the developing and delivery of critical infrastructure in Ireland today. The findings and analysis discussed in this chapter centre around the objectives of the research study as outlined in chapter 1.

4.2 Primary Research Findings

As outlined in chapter 3 the semi-structured interviews consisted of an interview guide with fourteen open ended questions. The first two questions on the guide relate to what is critical infrastructure. Questions four to six relate to strategic planning in Ireland. Questions seven and eight relate to the political structure in Ireland. Questions ten to thirteen relate to funding of infrastructure and question fourteen (the last question) importantly asks the interviewee for any final views, opinions and any recommendations.

In addition to questions relating to the above primary research themes, two separate questions were posed with the aim of understanding the impact of Brexit on the delivery of infrastructure in Ireland. Secondly, a question was posed with regard to any lessons that could be learnt from the last recession (2009) that might help in the delivery of infrastructure projects in the future.

The results as presented in this chapter include direct quotations from the interviewees. The intention is to capture key responses thus adding to the contribution of knowledge in this area.
4.2.1 Critical Infrastructure in Ireland

The first question asked of interviewees related to critical infrastructure in Ireland that in their opinion is necessary for economic growth. The research found that in response to question 1 there was a wide range of views on what is termed critical infrastructure and what Ireland should be planning for now. A common theme, however, was the requirement for housing and the necessity to facilitate significant additional growth in house building. The politicians interviewed notably stressed the importance of affordable housing, whereas interviewees more associated with industry, highlighted the importance of housing to facilitate economic growth. Another common theme was the development and roll out of broadband, given the lack of scale of Ireland in international terms i.e. our lack of large cities. The importance of high quality, high speed broadband is critical to future development according to some interviewees. Other areas highlighted included the important role played by education and research facilities in our economic development. The importance of delivering on sustainable transportation initiatives and sustainable energy initiatives was also highlighted.

The first interviewee noted that the most important critical infrastructure today is the provision of serviced land:

\textit{The most critical infrastructure that needs to be available is land in my view both commercial and social development, by commercial I mean development of industrial commercial areas and by social, I mean, primarily land for housing}

Tom Comerford  
Senior Engineer, Cork County Council, Water Services Capital Office

The next interviewee emphasised the importance of housing to facilitate and maintain economic growth:

\textit{Housing is number one. It's a major challenge in terms of economic growth, quite simply we don't have enough accommodation for the employment growth that's coming down the track.}

Mr. Conor Healy,  
Chief Executive of Cork Chamber of Commerce
A third interviewee emphasised the importance of serviced lands to deal with the housing shortage:

*The most critical thing that we need infrastructure for is to enable the delivery of a significant additional level of growth in house-building.*

Mr. Tim Lucy  
Chief Executive, Cork County Council

The next interviewee highlighted the importance of a sustainable transportation policy to facilitate an efficient economy. Emphasising that 40% of our national energy consumption is used in transportation;

*I suppose the first thing that comes to mind for me is transportation. Transportation is the engine of the economy whether you're going to school, work or doing anything, you must have a functioning transportation system. If you don't your whole economy suffers. Since the country we live in is an open economy trading on the world market having an efficient economy is essential. It's not discretionary... in terms of transportation then a point to note is that 40% of energy used in Ireland ends up in transportation.*

Mr. Peter O'Donoghue  
Senior Engineer, Infrastructure and Development,  
Cork County Council

Another interviewee referred to energy in terms of grid integration and the certainty of future energy supply. In particular, given the current situation with Brexit, he stressed the importance of energy integration with mainland Europe and interestingly highlights the prospect of the future car fleet running on electricity:

*I think the biggest infrastructural problem we're facing is grid integration. ESB grid integration, I think that's one of the biggest. I think there's a need as well for an interconnector with continental Europe because of the impending Brexit situation. Energy is a huge issue coming into the future, especially electricity because probably all the car fleet will be electrical in 20 years time anyway.*

Mr. Paul Murphy, Senior Planner, Cork County Council

The next interviewee from an economist's point of view, highlighted the most important factor in attracting foreign direct investment is a skilled workforce which he considers to be a non-infrastructure requirement. However, from an infrastructural development
perspective the importance of high speed, high quality broadband is essential given the lack of scale of Ireland:

*The most important factor is a skilled workforce by a big margin and after that because we looked at location within Ireland was scale i.e. a lack of large places, now you could call that an infrastructure problem, when we looked at infrastructure the one that came up as being most important was broadband hi-tech firms quality broadband, standard DSL is not enough.*

Professor Edgar Morgenroth,
Dublin City University, Business School

The next interviewee from a political perspective, highlighted the need for housing but in particular the need for affordable housing and re-establishing the social housing provision through local authorities, the importance of a national broadband policy was also stressed:

*The idea of having affordable housing is critically important. We need to prioritise investment in having a functioning housing market and a rental market, also having a restoration of a very elaborate social housing provision through local authorities. In terms of the broad national priorities, I have long been of the view that we really do need to have significant policy instruments to put into effect what a lot of people talk about. That namely is to rebalance the population in the country. So that we can't have everything in an ever-growing greater Dublin and that means not paying lip service to a broadband provision.*

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform

The next interviewee from a planning perspective, highlighted the changing patterns of work and people internationally and how this will impact on Ireland where traditionally people followed jobs, now jobs follow people. To this end, the importance of housing, transportation and connectivity (digital) is highlighted:

*Historically, people used to follow the jobs but now jobs follow the people and in the modern economy jobs are mobile. They will follow where the people want to live. Therefore, if we take Cork as an attractive place to live we will attract the human capital that we want to attract and retain the human capital that we want to retain and jobs then will be attracted to those locations. . . housing is very important to people, affordability, quality of housing and transport options in terms of moving around is also important to people.*

Mr. Pio Condon, Senior Planner, Policy Unit, Cork County Council
The next interviewee again from a political perspective, outlined the importance of education and highlights that this was an area of Government priority through the recession given the demographics of the population. The importance of transportation and roll out of fibre broadband, particularly in rural areas, to counteract the urban rural divide is also stressed:

_We have seen investment in terms of social infrastructure as well as economic infrastructure but in some ways there linked. During that period we really tried to keep education as an area that was not going to be undermined by a lack of investment because we could see demographics changing... a new plan, essentially to link some of these cities so that from a transport point of view we are encouraging alternative growth patterns... so you will see a motorway between Cork and Limerick and you are already seen the opening of large section of motorways between Limerick and Galway... if you look at some of the other deficit areas, broadband is a big deficit area in terms of rural broadband and that's why we have a national broadband scheme. The Government will spend hundreds of million euro, essentially subsidising the roll out of fibre broadband into rural parts of Ireland that otherwise would not get the service. This avoids an urban - rural divide in terms of the telecommunications and information flow._

Mr. Simon Coveney TD,  
Tanaiste & Minister for Foreign Affairs

4.2.2 Impediments to the Delivery of Infrastructure

The second question asked of interviewees related to what impediments, if any, were impacting on the delivery of infrastructure and what would they recommend to improve delivery.

A strong theme emerging from the responses of the interviewees was in relation to finance and most importantly the speed at which funding becomes available to fund infrastructure projects. Other responses focused on the time delays incurred during the planning process. A number of interviewees highlighted the importance of adequate funding for 10 year development plans in the initial years of the plan. Historically, delays in this area have lead to 10 year plans being pushed out further and further into the future.

The first interviewee highlighted that the lack of funding is a major challenge to progressing infrastructure schemes in a timely fashion:
I still think we have a funding and finance challenge... a lot of the infrastructure development that we have planned for now is planned over a ten year plus period, which arguably is needed now and be delivered in a three to five year period.

Mr. Conor Healy,
Chief Executive of Cork Chamber of Commerce

Another interviewee stressed the speed at which funding becomes available in particular the front ending of national development plans:

The speed at which money is available to us would be the most critical thing. I recognise the fact that not until probably 2021 that there’s likely to be a significant release of Government funding into infrastructure development, even though we have a national development plan from now - 2018.

Mr. Tim Lucy
Chief Executive, Cork County Council

The next interviewee highlighted that we as a country are slow to accept politically, the bigger picture, i.e. too much local politics can hinder the delivery on nationally important pieces of infrastructure:

Obviously the first one is political acceptance of the bigger picture, we are slow politically to sell the big picture in this country.

Mr. Paul Murphy, Senior Planner, Cork County Council

The next interviewee from an economic perspective again emphasised the speed at which finance is made available given the budgetary constraints that apply to the economy at any one time:

I mean on the one hand there is always a budget constraint, so there’s a limit as to how quickly you can roll out infrastructure, simply because you don’t really have the money to spend or because of constraints.

Professor Edgar Morgenroth,
Dublin City University, Business School
From the perspective of a former Minister for Public Expenditure, the next interviewee again highlighted the significant issues with available finance in particular during the recent recession:

> I suppose the biggest impediment I had was money, I think we had to cut our cloth according to our measure.

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform

The next interviewee highlighted the issues of available finance and links this to the large national debt and strict EU rules that apply to national budgets and expenditure. These fiscal rules impact on funding models available to local authorities to plan strategically:

> I think one of the impediments we have is ultimately our national debt. We have a headline problem in so far our national debt is that it went from 100 billion to 200 billion in the last ten years. I suppose one of the issues is the funding model... of local government. Does local government have enough money to invest in infrastructure in advance of demand in order to influence where development goes and how it's done, that's an issue;

Mr. Pio Condon, Senior Planner, Policy Unit, Cork County Council

The next interviewee highlighted the planning process as taking too long to make decisions he cites the recent decision by Apple to withdraw their application for a data centre in the west of Ireland due to delays in securing planning. The interviewee outlined that investment of €800 million has been lost by delays, added to this is the fact that two or three people have objected and therefore prolonged the planning process so long that Apple have recently decided (May, 2018) to withdraw their investment:

> I think we need to learn we need to find ways of making the correct decisions on the basis of what is good for society and what is good for the environment faster. I think there is a good example in the terms of the Apples case in Athenry. This was going to be the most environmentally friendly data centre on the planet, built in the middle of a wooded area that would have sent a very strong signal for development and job creation in the West of Ireland. It is being held up by literally two or three people and now it is not going to happen, that's 800 million euro of investment in the West of Ireland there was never going to be a massive number of jobs linked to
4.2.3 Brexit

The third question asked of interviewees related to what are the likely impacts that Brexit may have on delivering infrastructure in Ireland. All interviewees highlighted the disruptive impact Brexit may have on Irish export trade given the likely imposition of tariffs between the EU and the UK. A number of responses highlighted the importance of focusing our attention on our ports in order to circumvent the UK with the delivery of goods to mainland Europe. Another issue highlighted relates to potential tariffs, which may be placed on UK companies tendering for infrastructure projects in Ireland and the impact this may have on competitive Public Private Partnerships (PPP’s). Another view offered is that Brexit has concentrated the thought process in a positive way by forcing Ireland to look at international markets outside of the UK and increasing our competitiveness.

The first interviewee highlighted that impediments to free movement of goods and services will likely lead to increase costs for UK companies who may wish to tender for an infrastructure project:

*I would see the British companies partaking in Irish PPP’s, in joint ventures, in construction ventures which is the space I operate in, there will be impediments which we can’t yet foresee fully. They will be less likely to enter into the fray and deal with all these bureaucratic difficulties and that will affect competition.*

Tom Comerford
Senior Engineer, Cork County Council, Water Services Capital Office

This is re-emphasised by the next interviewee who can foresee complications for UK companies who participate in construction projects in this country:

*One thing that might come to mind is whether or not it’s more complex for major construction companies in the UK to participate.*

Mr. Tim Lucy
Chief Executive, Cork County Council
Another interviewee focuses on the importance of our Ports to address our transportation needs in a post Brexit EU. He notes the timely infrastructure development planned and due to commence in Cork Harbour and interestingly Brexit is highlighted as an opportunity for the Cork region:

*If you take our ports there has been key infrastructure particularly with regard to the Port of Cork. There is potential there, that Brexit could give opportunity for the Port of Cork in terms of development and that would be good as an island to have port infrastructure developing and expanding and particularly good for this region (Southern region).*

*Mr. Conor Healy,*  
*Chief Executive of Cork Chamber of Commerce*

From an economist perspective, Brexit is not only seen to have potential impacts on UK companies tendering in Ireland but also the impact on cross border infrastructure projects such as road schemes and potential energy interconnecting schemes:

*There are two things here first, from a practical viewpoint UK firms may find it more difficult to tender and they may not be able to tender it depends very much on the nature of Brexit, that immediately reduces competition in Irish market and therefore has a negative impact on prices. There is one other dimension where Brexit is important and that’s in terms of investment in infrastructure in or around the border. If you think about one of the projects which has been looked at for a good number of years, the A5 project the road to Letterkenny, with a hard Brexit, in my opinion I don’t think that project should go ahead.*

*Professor Edgar Morgenroth,*  
*Dublin City University, Business School*

The next interviewee again highlighted the importance of developing our ports and the connectivity to same. For example, developing the motorway to Rosslare Port to ensure good transportation links direct to the European mainland:

*We need number one to complete the motorway to Rosslare. Number two, to actually have a developed port in Rosslare capable of supplanting if necessary the difficulties that might arise with a more problematic land break.*

*Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform*
The next interviewee emphasised the importance of energy connectivity to the EU mainland and the problems that now arise with the UK’s departure from the EU. This is from a perspective that Ireland will develop it’s alternative energy supply to such an extent that there may the possibility to export excess energy back to the EU grid;

One that comes to mind immediately is in the energy field. There is a European energy strategy that wishes to create a European energy network which actually sits very well with the founding principles of the EU... I do think there are huge opportunities for Ireland in that space. In terms of developing renewable energy here, being plugged into European energy network and exporting sustainable energy abroad. For a small domestic economy like Ireland exports are hugely important.

Mr. Pio Condon, Senior Planner,  
Policy Unit, Cork County Council

The next interviewee highlighted a positive aspect of Brexit as it has concentrated minds on developing more international markets outside of the UK. He outlines that current Government policy is to extend Ireland’s diplomatic footprint in order to open up and expand into new markets:

It has forced Ireland to think in a way that is less dependent on Britain and more looking at what Ireland can do to be a competitive platform for international trade. In some ways Brexit has done us a favour, it has concentrated our thought process.

If you look at what I am doing now in terms of diplomatic footprint abroad we are significantly going to expand our presence in Germany, we are already expanding our presence in France. We are opening up a whole series of embassies this year including a new embassy in Bogota in Columbia in Santiago in Chile. We have just opened a second embassy in Vancouver in Canada, we are opening up a new embassy in New Zealand and we are opening up a new consulate in Mumbai. These are all countries that the European Union and Ireland has a trading relationship with. The EU has a trade deal in place and this allows Ireland to open up and expand into new markets to diversify away from an over dependence on the British markets.

Mr. Simon Coveney TD,  
Tanaiste & Minister for Foreign Affairs
4.2.4 Strategic Planning in Ireland

The fourth question asked of the interviewees was to assess their opinion of strategic planning performance in terms of economic development in Ireland. It was outlined at the time of the interview that interviewees could assess the performance of whichever time period they deemed appropriate.

In general there was a negative opinion of Ireland’s strategic planning ability in terms of economic performance and its relationship to delivering infrastructure. However, some interviewees make the distinction between regional strategic planning which has been successful and national strategic planning, which in their opinion has not. Many interviewees referred to the National Spatial Strategy (2002) as a failure. A number of interviewees highlight the reason for this failure as a lack of ambition, a lack of resources and political interference. One interviewee, highlighted that in his view, Ireland’s strategic planning is based on the availability of resources rather than a needs assessment, but is hopeful that Project Ireland 2040 National Development Plan may address this issue. Another interesting comment received is that strategic planning is by definition long term and the Irish Economy has not yet had a long term sustained growth period of time and therefore has not truly tested its long term goals in any meaningful way.

The first interviewee assessed the last 30 years of strategic planning in Ireland as a very poor performance with a lack of joined up thinking:

*I would say that has been very poor . . . a huge element of lack of joined up thinking across the various strands of government. I think the planning and the infrastructure development was too subject to political interference in terms of the prioritisation of projects and projects not aligning with any particular economic strategy.*

Mr. Conor Healy,
Chief Executive of Cork Chamber of Commerce

Another interviewee made the distinction between local or regional planning and national planning and outlines that on a local or regional level (referring to the southern region) strategic planning has been very good. However, on a national level it has been poor;
In this region I think the strategic planning has been extremely good. Nationally, well that’s a different story. . . the national spatial strategy was never delivered in terms of the type of direct targeted interventions that were required of central government. That’s why I think it was a big failure. However at a regional level, I think the housing strategies have certainly been highly effective . . . because they bring long-term strategic goals, long-term thinking about where we need the interventions, the road infrastructure, where we need our specific different types of economic areas.

Mr. Tim Lucy
Chief Executive, Cork County Council

Another interviewee outlined that strategic planning has been traditionally poor in Ireland and we appear to lack ambition and the funding necessary to carry out strategic planning. In addition the interviewee outlined that our strategic planning seems to work on the basis on the availability of resources rather than a needs assessment, however the new plan - Project Ireland 2040 may change this approach;

Traditionally it would have been very poor, strategic planning would be poor, constrained by ambition and the lack of resources. . . The way our strategic planning seems to work is based on a response to the availability of resources rather than a needs assessment. However, we have currently moved on from that and our current strategic planning, Project Ireland 2040 may change this approach.

Mr. Peter O’Donoghue
Senior Engineer, Infrastructure and Development,

The next interviewee interestingly highlighted the fact that Ireland has not had any long term sustained economic growth in its history. Ireland’s economic performance has been cyclical in its nature and therefore we have not truly tested our long term strategic ability:

I don’t think we’ve really tested it because we haven’t had long-term growth for any long length of time in this country .... We had the national spatial strategy which collapsed on one level because, but it was only produced in 2002 which is, strategically, a very short time.

Mr. Paul Murphy, Senior Planner, Cork County Council

From an economists perspective the next interviewee again highlighted the ongoing lack of strategic planning and under performance of the Irish economy and stresses the
important of firstly establishing the assets or establishing ‘what we got’, deciding where ‘we want to get to’ and then producing a strategic plan of how to get there:

I think it's been problematic and as I mentioned earlier you can’t do strategic planning if you don't know what you have got and if you have a very poor idea of where you want to go, I call it strategy 101. You’ve got to know what you've got and what you’ve not got, to know what you want to achieve and then you can see how you get from A to B. However, if you don’t know where to start with, and if you don’t know where you want to go, then you’re just traipsing around in the wilderness! That is actually a quite a good characterisation of what we have often done in this country.

Professor Edgar Morgenroth,
Dublin City University, Business School

The next interviewee from a political perspective highlighted that we are a poor nation in terms of strategic planning and lack the ambition and appear too fixated with economic analysis in ‘the now’ and do not take a long term economic analysis on the viability of projects:

We're very poor in strategic planning in general, we lack ambition and economic analysis in this country is...our strategy is basically is to stress test the economic viability of any project now, we don’t really believe in future proofing. As a result of this we’d barely finished the M50 when we needed to extend it. We had endless resistance to Dublin Port tunnel, we had a slew of people decrying the second terminal in Dublin airport as a white elephant and now it’s at capacity.

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform

The next interviewee from a planner's perspective highlighted we lack the discipline to follow through on strategic plans and cites the promise of the Buchanan Report in the late 1960's and the lack of discipline to follow through on spatial development in Ireland:

I think that our strategic planning is going to have to be a little bit more disciplined. What I mean by that is, to give some examples going back to the 60’s and 70’s we have had a number of landmark moments in strategic planning in the wider sense of the word, you had the Kenny Report and the Buchanan Report were forward thinking narratives based on a number of economic centres. They were not followed and spatial planning did not resurface again until the early noughties.

Mr. Pio Condon, Senior Planner,
Policy Unit, Cork County Council
The next interviewee highlights the examples of poor strategic planning in many towns and villages throughout the country which show no evidence of strategic and sustainable planning and notes that over 10,000 people commute from Portlaoise to Dublin every day:

_I have to admit that if you look at the really sort of unsustainable planning that has happened in the last 20 or 30 years, if you take the number of people who drive to work from Portlaois to Dublin everyday close on 10,000 people that is an example of poor planning. If you look at the pace at which some of the towns that are satellites around Dublin have grown Naas, Navan Dunshauglin, Maynooth, Kildare and Newbridge all of these towns while they have super town centres they just seem to be acres and acres of housing estates on the outskirts, given permission in a case by case basis with no strategic thinking._

Mr. Simon Coveney TD, Tanaiste & Minister for Foreign Affairs

4.2.5 Current Planning Regulations

The fifth question asked the interviewees what if any changes they would make to the current planning regulations that may be beneficial to the delivery of infrastructure in Ireland.

A very wide range of suggestions were proffered in response to this question with most interviewees agreeing that the current process needs to be amended given the length of time it takes to get decisions. Very interesting suggestions were received ranging from views that the local authority should determine applications below a threshold level with no recourse to appeal; that there should be an assumption of planning for critical infrastructure if it's in line with national policy; more focus on 'plan-led' rather than 'site-led'; a scrutiny of the rights of serial objectors objecting to critical infrastructure; adequate compensation measures to third parties indirectly affected by an infrastructure proposal; a suggestion that a new agency could be established as an 'honest broker' to determine compensation for affected parties in a compulsory purchase order for major infrastructure schemes.

The first interviewee highlighted that time delays through the planning process continue to cause significant delays. In addition, a very legalistic approach to planning
and expert reports on planning, can lead to a regulation created with the best of intentions becoming an impediment to planning;

One bottleneck really is time, time and time again we hear about projects being delayed. There are appeals to local authority planning’s to Bord Pleanala, appeals to courts including the high court and the supreme court... and these tend to get farmed out to the experts in their areas, whether it’s an archaeologist, a biologist or a botanist or whatever. These experts adhere to the letter of the law and they turn maybe a good intention of a regulation or a document into an impediment for the project. I have seen this time and time again.

Tom Comerford
Senior Engineer, Cork County Council, Water Services Capital Office

From the perspective of running Cork County Council, the Chief Executive Officer suggested that in an environment where we need to catch up with building projects as quickly as possible, the idea that a threshold below which there should be no right of appeal should be looked at. This suggestion is made on the basis that professionals and experts within the local authority have already made an assessment of an application based on national and regional guidelines:

In an era where we’re trying to support advancement of construction and activity as quickly as we possibly can. Having two bites of the cherry for people who have made observations and then subsequently object to an bord planala I wonder is that questionable ..... Maybe that should be restricted to certain types of developments that are highly sensitive by their nature, which might be a development in an SAC (Special Area of Conservation) it has an EIS (Environmental Impact Statement) ...... and you don’t have a right of appeal because it’s not such a sensitive issue. I’m beginning to wonder is there a need to look at that whole regulation piece.

Mr. Tim Lucy
Chief Executive, Cork County Council

Another interviewee from a commercial perspective, highlighted the need to assess projects of major national importance quicker, recent developments in promoting housing schemes appear to be working but this is happening in the context of a national emergency around housing, other sectors should also be dealt with as quick:

There has to be a process whereby projects that are considered of major strategic national importance, I would say national rather than local, need a better system of giving those projects approval.

Mr. Conor Healy,
Chief Executive of Cork Chamber of Commerce
The next interviewee makes the interesting suggestion that critical infrastructure projects of national importance which align with national and regional policies should be assessed on the basis of a 'presumption of planning', while stating the issue of serial objectors also needs to be dealt with:

*If the proposed development meets two criteria first, if it fitted within the criteria of "critical" and second, was it supported by planning policy. If your project had the support of the regional plan, the county development plan, the local area plan, therefore it has policy support for the actual project. So there's policy support for it and if it fits within the classification of what we consider critical, then there should be a presumption that they will get planning permission and that the application process should be looking for reasons for not granting it, rather than the other way around.*

Mr. Peter O'Donoghue
Senior Engineer, Infrastructure and Development,

The next interviewee from a career in planning highlighted the issue of a critical piece of infrastructure being required nationally and regionally but the wrong site is chosen for the development i.e. the development should be more 'plan-led' rather than 'site-led'. There are examples of this where projects are required based on policy but the planning process goes on for years and years i.e. trying to 'shoe-horn' in a particular development into a site that may not be appropriate. Also the interviewee suggested we should use the compulsory purchase order (CPO) option more for critical projects, currently the CPO process is limited to road schemes:

*Should be more plan-led than site-led, what tends to happen here in Ireland a lot is someone comes up with a site and says 'I want to build my incinerator on this site' but it's not necessarily the best site. Then they try to shoehorn it in, there's oral hearings and court appeals and then the planning process goes on for years and years..... Maybe we should be using compulsory purchase orders (CPO) more; we only do it for roads.*

Mr. Paul Murphy, Senior Planner, Cork County Council

The next interviewee from an economist's perspective outlined that there needs to be a mechanism to compensate third parties who may be indirectly affected by a development.
For example, the development of pylons for high voltage cables. Typically compensation will be agreed with the land owner, however, the owner of the adjoining property may suffer the affect of the development and not receive any compensation for the impact. A suggestion that affected parties should be entitled to compensation and this should be assessed by an independent 'honest broker' agency ultimately he outlined this has the potential to remove objections to the proposed development and quicken the planning process;

*It's a kind of third party compensation really, it's a mechanism. It would probably require a new agency that would be independent and seen as an honest broker by all parties because that's important that people trust each other. Simply accept, that there are some people who will have a loss from a project, compensate them for their loss and move on and get things done more quickly.*

Professor Edgar Morgenroth, Dublin City University, Business School

The next interviewee stressed the problems with third party objections, highlighting the unique nature of the Irish planning system where anybody can object to anything, anywhere and cause very significant delays, notwithstanding the role designated bodies need to carry out;

*I think the biggest and most difficult thing to deal with is third party objections. That is non-affected parties having the right of appeal. This is not prevalent in many planning systems across the world. That you have...You know what lawyers call locus standi. Now obviously there'll be designated bodies that would have locus standi, but the notion that any citizen can object to anything, anywhere, and delay it for a very considerable period of time is I think a unique and unwelcome feature of our planning process.*

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform

The next interviewee from a planning policy perspective, outlines the ongoing 'tension' between the common good and individual rights in planning and suggest that creating attractive locations by proper regional resourcing through local authorities will lesson this tension. The interviewee suggests that the current planning applications are constantly being amended to reflect society changes (shopping patterns, with large shopping malls for example) and by in large the current planning regulations work:
I think at the heart of planning in this country, as is in all jurisdictions really, is the tension between the individual right or desire and the common good and there has always been tension and that's always the path we (as planners) are trying to navigate through. I think we have to strive to balance those rights to where development happens and how it happens, trying to balance that with the economic, social and environmental imperatives that the common good requires, that's always going to be at the heart of every small and big planning decision... I think it does work, by and large I think that the current planning regulations are always being refined and always reacting and are continually being updated.

Mr. Pio Condon, Senior Planner,  
Policy Unit, Cork County Council

From a political perspective the next interviewee again highlighted the need to streamline the planning process, including critical infrastructure legislation and also to deal with spurious claims. The interviewee made the suggestion that observations could be assessed and spurious claims dismissed in order to make the process more robust;

The critical infrastructure legislation, I am not sure it has really worked, we still have very long drawn out processes even under the Strategic Infrastructure Act. There are still challenges that go all the way to the European Court. Projects get delayed and delayed so I think we need to look at how we streamline decisions so that we make the right decisions and not to bulldoze our way into inappropriate decisions which would be totally unacceptable...

there is a need to make decisions in a timely manner in order to respond to demands that are needed across the society or environmental grounds and I am not sure that we have a pace of decision making within the planning system in Ireland that is good enough... I think if people have expertise in a certain area of course that expertise is very important as an observation or as an objection. Sometimes that expertise might come from a long way away, so for example, if you're developing something in Cork Harbour and there is a seabird expert from Donegal who comes down and has an objection because it is going to impact on the breeding ground for seabirds, that is a real objection that needs to be noted and taken account of in the decision making process. However, if somebody has visited Cork as a child and does not want to see Cork Harbour change because of their 'childhood memories' for them to have an objection of equal weight for me seems strange... I think there needs to be a system that sifts through observations and objections to make an earlier call as to what is serious and what is spurious.

Mr. Simon Coveney TD,  
Tanaiste & Minister for Foreign Affairs
4.2.6 Project Ireland 2040 National Development Plan

The sixth question sought the opinion of the interviewees of the recently launched (February 2018) Government plan 'Project Ireland 2040' National Development Plan.

Although there was positive optimism from a number of the interviewees that this plan could deliver going forward, there was also a level of scepticism about what the plan would actually deliver. There was also a feeling that the plan did not deal in detail with the initial implementation phase and that in the area of housing for example, an initial 'release valve' of green field sites is required to urgently deal with the housing crisis. Also fears where outlined about the lack of clarity as to when schemes would commence, the repeat launching of a number of schemes and the 're-packaging' that surrounded the launch of the plan. There is a strong feeling from the interviewees that the plan certainly deals with the spatial regeneration of Ireland and the creation of major city clusters to create scale within the Irish economy, but, there are worries about the implementation plan and concerns that local and regional resources will not be made available, or that funding will not be made available in time to implement the plan's objectives.

The first interviewee outlines a great deal of scepticism that the current Ireland 2040 plan will be any different to previous plans:

*Project Ireland 2040 is just another chapter in the strategic planning in the nation. I wasn’t that impressed with the last plan... and to me it’s just more of the same, it seems to be just more of the same. Probably something by a different name, but maybe substantially more of the same.*

Tom Comerford
Senior Engineer, Cork County Council, Water Services Capital Office

The second interviewee although welcoming the central theme of the plan, the development of clusters nationally to facilitate growth, has fears for the initial stages of the plan and the urgent need to address the housing crisis;
I suppose the national planning framework is very focused on the urban growth of five main urban centers at this point in time. That's correct, unless we get those five major urban centers significantly developed, then as an economy we're not going to maximise our potential. . . there doesn't appear to me to be a recognition within that planning framework that perhaps for the next five years we have to really look seriously at having a release valve into green field sites to address the housing crisis.

Mr. Tim Lucy
Chief Executive, Cork County Council

The next interviewee although welcoming the plan, has concerns about the lack of clarity on timelines within the plan. He would like to see commitments to start times for particular aspects of the plan;

But on the whole I think it was a good process. The weakness is that it's not strong enough in terms of timelines and commitment to start periods particularly. So if projects don't start they can't finish, it's stating the obvious.

Mr. Conor Healy,
Chief Executive of Cork Chamber of Commerce

The next interviewee highlighted that the plan is a good ambitious plan, combining both the National Planning Framework and the National Development Plan for the first time. However, the interviewee outlines concerns about the delivery and resourcing the plan which needs to be on a multi-annual basis. A similar model to how the National Transport Agency (NTA) currently fund national schemes is suggested;

I think it's a good and ambitious plan and the question really is in the implementation phase and how serious are the Government in terms of implementation... resourcing both the method and the scale. The Government have a whole range of implementation mechanisms. For example, if we get a grant from the Government for a scheme directly from the Department of Transport, sometimes it can be for a specific stage and tied into a specific deadline. That's an unreasonable way to deliver infrastructure. Whereas, when we work with the NTA funding is given to a scheme and there is no deadline. We work, we progress projects as quickly as possible. The speed of achievement is related to the resource that's put in and we don't have artificial deadlines.

Mr. Peter O'Donoghue
Senior Engineer, Infrastructure and Development,
From an economist's perspective the next interviewee outlined that the plan is a vast improvement on previous plans. However, there are concerns about the delivery of the plan and highlights concerns with the efficiencies of local authorities and their ability to deliver on such plans. There are also concerns that the National Development Plan has too much focus on capital infrastructure and less so on education and research based activities;

*I think it's a vast improvement over the national spatial strategy it's a bit more radical. The problem is all in the delivery, an important aspect of it will be the regional plans that go with it and then subsequently the local plans and the local delivery. I'm not at all sure that our local government system is fit for purpose when it comes to implementing strategic planning. . . The NDP is excessively focused just on infrastructure. As I mentioned at the start, this is not the only thing that matters and certainly not the most important thing. We need to have strategies on higher education and education more generally to do with research development. Previous NDP's had that focus on education and research however, the current plan does not have it and I think that's a mistake.*

Professor Edgar Morgenroth,
Dublin City University, Business School

From a political perspective there are concerns that the 'hyped up' launch of the plan may have taken from the strategic nature of the plan. It is very important that people 'buy into' the plan to ensure its success. There is a question about how radical this plan really is, and the view put forward is that the plan is again the government responding to what others are doing rather than leading;

*I mean, number one is, it was too hyped. . . because if we're going to have a strategic plan that everybody is buying into, I think that's an important component part of actually achieving it..... At the heart of what I'm saying is this, it is Government responding to what others are doing as opposed to leading. It's, saying we'll provide the schools and the hospitals for where the demographics currently is and the demographic will go to where planners and developers want to build or invest. As opposed to saying, no actually, this is where we should invest and this is where we're going to put the infrastructure in place.*

Deputy Brendan Howlin, Leader of the Labour Party &
Former Minister for Department of Public Expenditure and Reform

Interestingly, the next interviewee from a planning perspective viewed the plan as an important opportunity to strategically plan for large growth i.e. an extra 1 million people over the lifetime of the plan. The interviewee considered the plan a 'sea change'
and disruptive - in the sense of it’s likely impact on existing national and regional policy - and outlined the importance of availing of this opportunity and doing it well;

It is a very interesting plan, it is very disruptive, that is a word that keeps coming to mind for me it’s a significant change in direction... I think anyone reading it should be excited by it. For me the most important take away from point form he plan is that there are enormous opportunities being presented and it possibly is the last big surge forward of population we are going to have because of economic and demographic cycles. It’s a big opportunity, so we are about to plan in the next 22 years for an extra million people.

Mr. Pio Condon, Senior Planner, Policy Unit, Cork County Council

The next interviewee from a political perspective and as a Government Minister who promoted the plan outlined that the Project Ireland 2040 plan is the most ambitious policy initiative that he has been involved in as a public representative. The interviewee outlined the main focus of the plan is to rebalance the country and increasing the size of each city outside of Dublin by 50% in 20 years:

I would describe the Ireland 2040 plan as the most ambitious policy initiative that I have ever been involved in... It is about rebalancing the country it’s about increasing the size of each city outside of Dublin and Ireland by 50% in 20 years. What that means for Cork is that the growth of Cork will be about the same as the other three cities put together and that means Cork goes from having a 130,000 in the City to having 330,000 people in the City in 20 years - partly within the population growth, partly within the boundary changes. This fundamentally changes the dynamic between Cork and Dublin in terms of scale and opportunity and that’s what Ireland needs. A counterbalance to Dublin, which is overcrowded, too expensive and we can change Dublin too for the better

Mr. Simon Coveney TD, Tanaiste & Minister for Foreign Affairs

4.2.7 The Irish Political System

Questions 7 and 8 refer to the current Irish political system and how it might impact on the delivery of critical infrastructure:

No: all interviewees wished to comment on these questions as some felt it was outside their area of expertise, others had not given the political aspect of the delivery of infrastructure much thought and therefore did not wish to comment.
Those interviewees that did comment in general outlined that too much of Irish politics was local politics and this did not help the national perspective.

One response to this question highlighted a previous All Party Dail Committee that looked at the Irish electoral system and saw merit in adopting a 'hybrid' type political system i.e. election of both local and national politicians – quite often referred in the responses as the German Federal system. Other responses highlight the multi-seat constituency element of the Irish political system as causing a more focused local perspective due to competition with fellow local deputies.

The first interviewee noted that local politics may hinder or sometimes overrule the national perspective and suggests we have too many representatives;

*Over the years we are seeing local politics hindering or sometimes overruling national politics... I suppose first of all I'm always of the opinion that we have too many representatives in the government,*

Tom Comerford  
Senior Engineer, Cork County Council, Water Services Capital Office

The next interviewee focused on the fact that too often national politicians are focused on very local issues and given the centralized system of government in Ireland they should have a better national perspective;

*Well it's fair to say that the current political system does encourage national politicians to get very much involved in local matters and I don't think that's necessarily helpful.*

Mr. Peter O'Donoghue  
Senior Engineer, Infrastructure and Development,

From a planner's perspective the next interviewee highlighted 'short-terminism' with no thought to the long term and maybe a federal type political structure could help in this regard;

*That the 'short terminism' as I'm calling it is taking over from the bigger picture. We have at the moment an amazing obsession with short-termism and populism. It's just keeping everybody happy, that is the antithesis of strategic or logical national decision making.... they don't want to make national decisions in case they'll offend a few voters down in the local area. However, a federal system would*
be the ideal thing, which you'd have somebody voted nationally to take national decisions.

Mr. Paul Murphy, Senior Planner, Cork County Council

The next interviewee having direct experience of the German political structure agrees that a hybrid system like the German federal system might have benefits in Ireland and also outlines that the multi-seat constituency in the Irish system also causes unnecessary competitiveness for local issues;

I know the German system, or you have the lists like in the Netherlands who don't have a local council at all. There's no doubt that the type of electoral system we have means that local concerns whether they are right or wrong (and often they are not correct), do play a role. It's not simply the fact that it's locally elected people, but it's a fact that TD's are competing with other TD's in their constituency.

The multi seat aspect that makes it particularly significant. I find the multi seat system has other advantages, but it certainly means that politics gets much more local... It is interesting that even when a TD tries to set out a national perspective, very often they still end up talking about their constituency because they know they are going to be criticised by constituents if they don't.

Professor Edgar Morgenroth, Dublin City University, Business School

From a political perspective the next interviewee outlined in depth knowledge of a previous all Party Dail Committee's work which looked at possible reform of the Irish Political system. This work focused on the idea that Ireland would create 90 single seat constituencies with a 'top up' off a national list. This would achieve proportionality for smaller parties that could get no single seat constituencies but still get possibly 5% or 6% of the national vote. This idea did not gain traction at the time but certainly would be an improvement on the current minority Government political situation;

That we would create in Ireland, maybe 90 single seat constituencies. Then we would have a top up from a national list to get proportionality so that parties that would get say five or six per cent of the vote but no seats in a single seat constituency, would get the lion's share of those.... You currently have a dysfunctional Government who really can't make a decision because it can't be sure any decision it makes will get passed at parliament. Bluntly, it is very wary of bringing legislative proposals that could be amended in a way that would be unacceptable to them.

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform
Another interviewee from a planning perspective highlights that elected representatives are generally under a lot of pressure and any amendments to the political system that might help would be beneficial and may increase the discipline needed to achieve a national perspective;

_The initial thought that hits me is that elective representatives who are operating in the political sphere, are under a lot of pressure. They meet a lot of conflicting views and my observation is that it's a very hard job. It's difficult and I know that anyone who holds office in any sphere is putting themselves up there for criticism so it's tough. I think that going back to discipline and going back to having a plan and sticking to it, you know amending it obviously as needs, I think that is really important. I think that in terms of the political system, whatever initiatives we can come up with as a country to help those who are operating within the political system, anything we can do to help them, to allow them to take a longer view is something we should seriously consider._

_Mr. Pio Condon, Senior Planner, Policy Unit, Cork County Council_

The next interviewee from a political perspective refers again to the All-Party Dail committee review of the Irish electoral system. However, in his view the current political system is unlikely to change as there is no support for the idea. Furthermore, the interviewee outlines that even though there are issues with the Irish system it still is preferable in his view to the UK system which uses a single seat constituency system;

_Politically it's not going to happen, in order to do this you need to change the Constitution and there is no way people will vote for a change in the Constitution for a single seat constituency system or for a list system, I think Irish people are very sceptical of political change coming on the back of recommendations of politicians, I actually think our system is not the worst. It has some flaws but I still think our system is better than the British system having lived in the UK. In single seat constituencies basically small parties do not get a look in, independents don't get a look in, you just have two or three big parties. I think it's not a bad thing in Ireland to have small parties to have independents more diversity as long as it does not make government impossible which is the current situation in Italy. In Italy you just have lots of small parties, I think it is important to have a number of larger parties._

_Mr. Simon Coveney TD, Tanaiste & Minister for Foreign Affairs_
4.2.8 lessons learnt from the Recession

Question 9 asked the interviewees were there any lessons we could learn in terms of delivering infrastructure from the last recession of 2009.

The responses to this question were quite varied. Some responses deal with the issue of ring fencing or financially future proofing schemes to ensure delivery. Other concerns raised were the importance of continuing planning for schemes in times of recession, to enable quick delivery of schemes when funding becomes readily available again. Although most note that the nature of the 2009 recession was such that no funding of any kind was available and we had 'cut our cloth to measure'. However, the delay in re-establishing funding streams post the recession has been slow. This has caused severe shortages in areas such as housing which many interviewees view as a housing crisis. There is also a view raised that we seem to be stuck in a 'boom or bust' state of mind and Ireland needs to think outside the box and thing strategically when planning and funding critical infrastructure. Finally, not to be over reliant on any one sector of the economy to such an extent as was the case with the construction sector prior to the 2009 recession.

The first interviewee stressed the importance of ring fencing funding for a scheme as any interruption to funding will cause significant delays and may incur significant costs. The time the scheme is reactivated legislation for example could have changed and development that may hinder the project may also have occurred. Delays of this nature in general can cause large inefficiencies economically to a project;

I think once a scheme has been approved the funds should be identified and ring fenced for that project. Otherwise the 'wind will change direction' and the project will get stopped and it's very inefficient economically. Many projects had large amounts of money invested in them at an early stage and then they are just stopped or suspended. By the time one returns to them 5 or 6 years later, many things could have changed, not least legislation, development in the area, infrastructure requirements, etc., you might have to start virtually at square one again.

Tom Comerford
Senior Engineer, Cork County Council, Water Services Capital Office

The next interviewee highlighted from a local authority perspective that times of recession are the best times to plan and develop schemes to be ready for construction. Such that when funding does becomes available schemes can commence without
further delay. This could be applied across a wide spectrum of infrastructure projects including the M20 Cork to Limerick motorway a scheme mentioned by the interviewee in this context;

*I'll come back to my original point. A time of recession is the best time to plan. Everything comes down to money, but, consistently chipping away and having plans in formation at the ready for when the money actually does start to flow, I think is massively important and I do think that the M20 project is an example of this.*

Mr. Tim Lucy  
Chief Executive, Cork County Council

The next interviewee highlighted the fact that the country had to proceed prudently given the nature of the recession. However, the delay in restoring funding post recession can cause severe shortages and a current example hitting the country currently is housing;

*From a business perspective you would have being doing the equivalent of trading recklessly if you continued with those investments at that point in time. The mistake was leaving it too long to actually start restarting and kick-starting again ...and that's why we have the major issue now in terms of housing infrastructure. Despite calls from various people and organisations we needed to start at least planning and putting the building blocks in place, probably 4 or 5 years back. We are only doing it now in 2018 when the economy is very much lifted.*

Mr. Conor Healy,  
Chief Executive of Cork Chamber of Commerce

From an economist’s perspective there is a clear view that the country could not spend on capital infrastructure given the severe nature of the recession. Furthermore the interviewee felt the recession highlighted the need to reduce debt in good times to enable the government to borrow in bad times. Ideally a government should be in a position during a recession to continue with projects to cushion the impact of that recession;

*The main lesson obviously is not to have such recessions. The other thing is that the way we had to react because of the nature of the recession, we couldn't really continue on with projects like that. In good times, governments should run surpluses that they spend in bad times. The alternative is that in good times Governments should reduce deficits... This particular recession was so deep, that really, there was no scope for expansionary policies that would kind of cushion the crash. There's a more general issue around some projects whether they are the
right projects to do in the first place that’s a separate thing. I think you should be in a position where during a recession you can continue with your projects because that actually helps cushion cuts as a policy but that means you need to be running the economy in a particular way.

Professor Edgar Morgenroth,
Dublin City University, Business School

From a political perspective the lessons learnt focused on the lack of options given the severe nature of the recession and the need the act prudently. There is also mention of the importance of long term planning. In particular, the requirement to consider most transportation schemes over a 10 year horizon or longer. Shorter cycles of 5 years for such schemes are far too short;

I mean it’s a truism to say that you have to cut your cloth according to your measure and if there’s an economic collapse you put the brakes on. The notion that you have contra cyclical spend is a lovely idea but when you really face a storm and everything collapses that’s the reality. I certainly am much more in favour of long-term planning. Even in terms of the 2010 plan, I argued for a ten-year transport plan as part of that because you can’t do major transport projects in a five-year horizon.

Deputy Brendan Howlin, Leader of the Labour Party &
Former Minister for Department of Public Expenditure and Reform

The next interviewee highlights the role that housing played in the last recession and the excessive loans given by Irish banks to fund private and institutional investment in the Irish housing market. The interview poses the question should Ireland develop, in a manner similar to other European countries, different models of housing compared to the current Irish pre-occupation in Ireland with house ownership. This would have future implications for the type and model of funding for housing in Ireland going forward. This could dictate the pattern of infrastructure needed to facilitate this type of house building;

I think it’s very much linked to the housing market. We have banks that basically in 2009 funded all of the housing in this country. . . I think the housing model in Ireland, because of its primacy in terms of our banks activity, of its primacy in terms of our own personal household expenditure and in terms of having a single housing model locks us all into one fiscal pathway in life, that we need to be given freedom.

Mr. Pio Condon, Senior Planner,
Policy Unit, Cork County Council
The next interviewee highlighted the importance of not letting the economic situation that was evident prior to the last recession re-occur and not to be over reliant on any one sector of the economy:

*The big lesson is not to leave it happen again. We were firefighting when we came into government we had unemployment reaching 16% and massive deficits. The only money we could get was from the IMF and from the EU that was emergency money which came with a lot of strings attached. The first lesson is whatever happens here not to allow this boom and bust cycle to continue... I think the lesson here is that not to allow an economy, a country to be over reliant on any one sector and I think that was the lesson learnt here. Banking and property became in Ireland a sort of uncontrolled 'animal' that was growing rapidly everyone was making money on the back of it. People became very greedy and irresponsible and we had a banking system that was not properly regulated which fueled it and it came crashing down inevitably.*

Mr. Simon Coveney TD,
Tanaiste & Minister for Foreign Affairs

4.2.9 Funding Infrastructure in Ireland

Questions 10 to 12 asked the interviewees how infrastructure should be funded in their opinion and also their views on the idea of a National Infrastructure Bank and methods of financing same. Question 13, specifically asked for their opinion on Public Private Partnerships (PPP's). It became clear during the interviews that most interviewees merged these questions in relation to financing infrastructure and the arguments for and against PPP's schemes in their replies. For this reason the researcher will group responses to questions 10 through to 13 together, to better reflect the data collected and the nature of the replies.

In the debate as to whether public or private monies should be used to fund infrastructure in Ireland, the consensus would favour public monies being used rather than private funding. A number of interviewees look favourably at European countries that operate large levels of state investment in infrastructure with corresponding high levels of taxation. Other interviewees highlighted the importance of using the most suitable and efficient model given the economic position of the state at the time of investment. The importance of steady income or revenue streams is also highlighted as
required by Government agencies to deliver long term strategic infrastructure. Whereas some interviewees regarded the idea of a national infrastructure bank as a good idea, others highlight concerns in relation to the solvency of such a bank given the performance of Irish Banks in the last decade. Ring fencing funding for schemes, regardless of its source, is also highlighted as required to deliver in a long term strategic manner. Some interviewees discuss the possibility of national bonds as a means of raising finance for infrastructure projects which would be ring fenced for that purpose. In general the responses from most interviewees on funding distilled the question down to public or private funding with less emphasis on the mechanism used.

In terms of the role of Public Private Partnerships (PPP'S), a number of interviewees highlighted concerns in relation to insufficient risk transfer from the state to the private sector funding agencies. There was also concern with the level of transparency of PPP operational models. Notwithstanding these concerns, a number of interviewees accept that PPP's have delivered in terms of the motorway network for example and unless taxes are raised to generate public monies to fund infrastructure, PPP's are in their view a realistic alternative due to political realities. A more recent issue with PPP schemes was highlighted by one interviewee citing the example of the bankruptcy of the Carillion organization. Carillion operated a number of PPP schemes for school building in Ireland and their recent bankruptcy has highlighted the lack of control the state has in such circumstances.

The first interviewee outlines the historical problems of funding in the water industry in Ireland and continuing problems with the current Irish Water model and recommends that any project funding should be ring fenced to develop the project. Further with regard to the concept of a national infrastructure bank the first interviewee was quite sceptical about how it would work and similar to the banking crisis, would it financially extend itself too much and need to be bailed out by the taxpayer at some future date;

_The fact is the funds were not available to complete the project that was needed. The department (department of environment) were reprioritizing and prioritizing all of the funds for the project. So it caused a drip feed of funding and then various other priorities would come up in the country, consequently funds would get diverted from department to department in government . . . I think at the time of approval funds should be identified and ring fenced for that project._

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It's a national infrastructure bank and it's different, but the fact is when I drill down through it, I see the taxpayer is holding the hot potato. I think it will happen, people will over borrow whether they are local authorities or public authorities and they won't be able to repay the national infrastructure bank. Somebody is going to have to pay the guaranteed private funds and exchequer.

Tom Comerford  
Senior Engineer, Cork County Council, Water Services Capital Office

The next interviewee highlighted the significant risk relying too much on private financing for projects, in particular when sourcing long term infrastructure projects. The importance of a steady income flow to fund schemes is also stressed;

There is a significant risk of relying too much on private finance and long term we are paying far greater to private financiers than what could potentially could be, if we had a more strategic long term national infrastructure funding model in place, a state funding model... There has to be a steady flow source of service of funding. If that's through the taxation system, what needs to happen is that I suppose the financial institutions need to be confident that there is a steady state flow of funding, whether through the taxation system or through charges

Mr. Tim Lucy  
Chief Executive, Cork County Council

The third interviewee takes a more business approach to funding and outlines that as full sourcing of projects is not going to be available from the exchequer, therefore externally sourced funding is needed. However this should be done in a prudent manner. In relation to the issue of a National Infrastructure Bank, the third interviewee takes the view that this is unwarranted and would further add complication to funding. There are already adequate resources in the Department of Finance to provide and manage funding. Another interesting comment concerns the role that the National Asset Management Agency (NAMA) could undertake when their remit changes in the coming years.

I think it needs to be funded. We have limited sources of funds from a domestic perspective, so again I'll bring a business analogy to that, if you have limited sources of funds internally you source funds externally. From an Irish context funding...externally is through any of the international channels that are out there through the EU, EIB. . . . I personally don't think there's a need for a national infrastructure bank to deliver that, I think it can be delivered through the institutions that are there presently. For example NAMA will have a changing remit in the near future.

Mr. Conor Healy,  
Chief Executive of Cork Chamber of Commerce
The next interviewee stressed that infrastructure should be funded nationally and suggests that Ireland's corporation tax should be raised to fund same. The high costs of setting up PPP schemes is highlighted with crucially an insufficient transfer of risk which leaves the state carrying the risk for a premium cost;

First of all it has to be funded nationally because the amount of resources required for infrastructure could not be raised locally. Again there's actually no point in trying to raise it through voluntary schemes or cajoling the private sector. Infrastructure is not good for the private sector. The private sector invests in things that are profit making. Infrastructure in itself is not profit making. To make it profit making is losing your core purpose. . . clearly in the current climate, Corporation Tax is a place where we're deficient . . . The set up costs on a PPP are very large so you've to pay millions upon millions to set it up and you never get anything back for that. At the end of the day, the private sector only sign up to these things if the risk is not with them. So the risk, the whole idea of PPPs is to spread the risk or share the risk and that doesn't work in practice. If the private sector see any possibility of risk they won't get involved. So I think it's tried and found not to be very successful I would say.

Mr. Peter O'Donoghue
Senior Engineer, Infrastructure and Development,

In a manner similar to the previous interviewee, the next interviewee also favoured state funding for national infrastructure. However, he accepts that it may not be political possible to do this and thus supports the careful use of PPP's to deliver a portion of the infrastructure program. The idea of a National Infrastructure Bank is also supported and the European model of state investment in infrastructure delivery is favoured in contrast to a more private sector American policy of delivery;

I can see a role for the PPPs, public private partnerships, but they have to be fairly clear and I think they've worked with regard to roads. But I think the PPP is probably the way things are structured at the moment, financially, internationally no-one is going to vote to increase their taxes, by 20% say . . . the American model is that private companies build the roads, and then what happens, the shareholders get all the profits and there's no money in investment. It's the very antithesis of what they do in Austria, Switzerland and in Germany where a percentage of everything goes into infrastructure.

Mr. Paul Murphy, Senior Planner, Cork County Council

From an economist's perspective the next interviewee agreed with the concept of a National Infrastructure Bank to fund delivery and cites the German state bank KFW as
an example how this can work. In terms of PPP's, again the interviewee highlighted the insufficient transfer or risk from the state and outlines concerns in relation to the 'Off Balance Sheet' accounting procedure that is carried out by the Department of Finance in relation to the national debt and the actual debt that the state carries with PPP schemes;

They obviously exist in Germany where you have KFW Bank (State Bank) on a larger scale you have the European Investment Bank. KFW in Germany is more than an infrastructure bank, so they also deal with some of the things that Sustainable energy Ireland do for sustainability investments. If you want to get your house insulated in Germany you go to KFW that's the way you would get your money. It's a good idea insofar as you would expect an infrastructure to have a steady return, be of relatively low risk and so you can borrow at reasonable rates, but you have got to organise that borrowing in some way... I don't really buy these 'off balance sheet' arguments it maybe off balance sheet but you're going to have to pay for it anyway so there's no free lunch here. Certainly when it comes to PPP's they have not always, perhaps the majority of them, operated the way they should. There wasn't a sufficient transfer of risk to the private sector and the private sector seems to be much better at negotiating with their public counterparts. However, we have a number of road schemes where the toll income is guaranteed even though we know that the level of traffic will never be sufficient - that's the M3 for example. The private sector quickly copped onto this and made sure that the Contract does not land them with the problem and the taxpayers is paying.

Professor Edgar Morgenroth, Dublin City University, Business School

From a political perspective the next interviewee raised concerns in relation to the use of PPP's and suggests that their use should be restricted in terms of national expenditure. Significant premiums are paid to the private sector and thus value for money is not necessarily achieved by the state. In addition, the bankruptcy of the Carillion organisation which operates a number of School building PPP schemes in Ireland, has highlighted the lack of control retained by the state during the PPP process. He refers to current delays in delivering school buildings with the state a 'passive bystander' during the process. The idea of a NIB is fully supported, allowing the state to invest in infrastructure in a commercial way and in his opinion is a very good idea;

We have six major projects in the education sphere. All on hold, two of which are completed and ready to be handed over. The state is a passive bystander because they're still in the control of the PPP company now that Carillion are in liquidation. The PPP company set the pace of delivery so we have now lost six months, for example, of a school, and since the whole idea of building infrastructure is to have it available, that's a very, very, big drawback. If it was directly in state control and a company went bust, the state could step in. We can't in this situation. I know that I have ministers telling me, 'But isn't it wonderful that we're not at risk financially?
But that’s no bones to the thousands of students who don’t have a school. Our idea is to set up a fund to prepare for future pension liabilities, but we should invest it in our infrastructure in a commercial way that would pay back, I think that’s a very good idea.

Deputy Brendan Howlin, Leader of the Labour Party & Former Minister for Department of Public Expenditure and Reform

The next interviewee highlighted the importance of timing with regard to funding projects by public or private funding. The economic cycle of the State’s economy should inform the decision. Regardless of what type of funding is utilized, the importance of discipline and prioritizing projects will be critical for the successful deliver of infrastructure in Ireland.

I think that if we have a very clear plan and we are implementing that plan it minimises the risk that circumstances will change mid-project so its dynamics might change. . . I would say that again having a plan, having discipline is critical and in terms of funding it I think the models are dependent on the circumstances at that moment in time.

Mr. Pio Condon, Senior Planner, Policy Unit, Cork County Council

The next interviewee stressed the method of funding is dependent on the infrastructure being promoted and highlights that PPP schemes can drive efficiency if applied to the correct scheme. The interviewee also highlighted the importance of 2019 as the year Ireland is likely to operate with a budget surplus, which will imply a relaxation of European fiscal rules in terms of capital expenditure by the Government;

I think depending on the project, PPP’s can be a really good way of funding as in the case for road projects for example if PPP’s include the tolling element sometimes it makes sense, it can be a good fit. . . Ireland has had a deficit for the last ten years we won’t have a deficit after this year for the first time in a decade. This is probably the most tangible signal that Ireland is fully out of recession. We are leaving the past behind us and once you are back into balancing your budget territory then the EU fiscal rules are far more lenient as to what you can spend and it’s very much linked to your economic growth. Therefore, Ireland will be in a much better place from next year on in terms of expenditure.

Mr. Simon Coveney TD, Tanaiste & Minister for Foreign Affairs
4.2.10 Final Suggestions by Interviewees

Question 14, the final question, asked interviewees for any additional suggestions or recommendations they might have in relation to the research topic. Some interviewees used this question to re-emphasize key points they made during the interview, for example highlighting the current impediments to delivery of infrastructure from a planning perspective and restating the need to deal with what they term 'serial objectors'. Other interviewees focused again on the issue of funding of infrastructure, the concept of regional autonomy in terms of access to funding with key performance indicators attached to monitor progress. Other interviewees see the importance of energy infrastructure as key to Ireland's future and long term economic prosperity. Finally, from a planning perspective, the view was proffered that the 'Project Ireland 2040 NDP' is a unique opportunity to plan in a sustainable manner for generations to come and it is important therefore, to make this plan work and to plan for 'quality of life' rather than planning for housing.

The first interviewee emphasizes the delays in the planning process due to objections and appeals which lead to judicial reviews of cases in the courts. The interviewee outlines in his view that the individual is afforded too many rights in terms of appealing planning of critical infrastructure schemes. In addition, the interviewee outlines that the level of compensation is set very high in this country for individuals, citing the example that quite often the land owner affected by a development of a piece of infrastructure may have their remaining lands increased in value as a result of the project but this is not taken into account in determining compensation;

There are too many rights afforded to the individual, too many levels of rights afforded to the individual, too many courts available, too many appeals processes available, too many delays available. I'll just go back to the Apple example in Athenry which I think is a national disgrace, there was close to 1 billion euro been invested in that, and it still stalled 3 years later... I have been involved in negotiations with land owners, and the fact that you are building a new road through their 100 hectares increases the value of their land. They are talking about decreasing the value of the land, it actually increases the value of land. So there is a windfall gain, there should be some form of windfall calculation associated with the CPO process also.

Tom Comerford
Senior Engineer, Cork County Council, Water Services Capital Office
The next interviewee focused on the importance of devolved regional funding to give financial autonomy to the regions within national parameters and under national metrics. The interviewee noted for example that Cork's economy is three times the size of Limerick, Waterford and Galway combined, but funding is still centralised in Dublin. The recent housing strategy has devolved funding to the regions and Cork was shown to have met its targets in this area and in fact has overachieved;

looking at the Cork economy, it's 3 times the size of Limerick, Waterford and Galway combined and is there something whereby a package of funding put in place, for the next 5 years we are going to have a half a billion euro in Cork. These are the projects that you must deliver on, these are the performance targets that you must deliver too and this is the economic output that you must do as local authorities and as stakeholders. . . perhaps a good example would be what has worked exceptionally well is the governments housing strategy. Each local authority is given very significant targets to deliver on housing and we exceeded on both years. We knew the funding was there, we knew we had a basket of funds to go to. We knew the targets were there and we over achieved. We knew that was a programme from 2015 to 2017, we now have a programme from 2017 to 2021. We don't have that for water, for roads infrastructure and we don't have it for broadband.

Mr. Tim Lucy
Chief Executive, Cork County Council

The next interviewee highlighted the need to act quickly when the economic cycle allows it. The economic performance of Ireland has been quite cyclical and currently we are on an up cycle with low unemployment and good growth. However, it is likely that this cycle will plateau in the coming years, thus there is a limited 'window of opportunity' maybe only 4 to 5 years to make significant progress in developing key infrastructure;

leaving aside major recession like we've had, there are constant economic cycles and we're on the up curve at the moment in terms of an economic cycle but there will come a plateauing and a downturn of some sort. Maybe not massive but of some sort. I think we have a relatively short window of opportunity of maybe four to five years to make significant progress on the upturn. Otherwise once things
start to change confidence takes a hit, which impacts on the political decision making, which in turn impacts on business decision making. So you know I think timing and timeliness in infrastructure delivery is very important.

Mr. Conor Healy,
Chief Executive of Cork Chamber of Commerce

The next interviewee returns to the theme of devolved regional funding and autonomy for regional financing of infrastructure developments and also highlights the importance of resources being made available at the delivery end and the importance of having resources available quickly for implementation of plans;

The funding mechanism that the National Transport Authority use for the regional cities programme we find very successful. I would have thought that would be a good mechanism for managing change and modernisation of our transportation system. I also think more resources at the delivery end of infrastructure will be required because that's the game we're in, delivering infrastructure and when I look at other agencies I see the same, with a lack of resources being one issue. We're suffering at the tail end of the recession and we're operating at levels that might be more appropriate during the recession. If we're looking to up our output and deliver more infrastructure there will have to be an investment in the implementation end of the process.

Mr. Peter O'Donoghue
Senior Engineer, Infrastructure and Development,

From a planning perspective, the next interviewee stressed the importance of planning for future energy provision and the need to have good interconnection with mainland Europe to ensure future supply. In addition, the roll out of a comprehensive high quality, high speed digital broadband service will be critical going forward. The interviewee noted that the privatisation of Eircom, gave shareholders a payout but now leaves the state to pay for the roll out of broadband throughout the country;

I think that's probably the biggest one - energy would be my view. The issues, the challenges facing the country in relation to it... I mean broadband is another case, basically the company has been bought and sold and bought again. Now we have no broadband and the Government is going to have to put the hand in the pocket

Mr. Paul Murphy, Senior Planner, Cork County Council
The next interviewee from an economist's perspective, re-emphasised the importance of establishing 'what we have' and finding out 'where we want to get to' and develop a plan accordingly. The interviewee highlighted that we have a tendency to focus on the 'new things' and not assess what assets we have and highlights the Health Service Executive (HSE) and the Department of Health as examples of this mindset.

*We get fixated on new things and forget about what we have, if you go into the HSE or the Department of Health they will give you exactly how many new beds they want, how many hospital extensions they want. They know all of that however, you ask them what the maintenance needs in the existing hospitals are they will not be able to tell you and the same goes for education... Indeed this is an interesting one, we don't have a central register of all state owned assets we don't have it. Northern Ireland has it but we don't. We have got a partial register but not a complete register so we don't know by definition what we have, so how can you know what you need? very fundamental, very simple, its strategy 101 or management 101. It applies in every aspect where are the asset management plans for all the things that we have. If you were a business and you had a factory, you would have an asset management plan at what point does it become redundant and at what point do we need to refurbish something. At what point do we need to replace X you know these things would have been thought about but we don't do that and that is strategic planning to me it's a fundamental part of strategic planning.*

Professor Edgar Morgenroth,
Dublin City University, Business School

The next interviewee highlighted again the importance of dealing with serial objectors to critical infrastructure causing long delays to delivery of same. Highlighting the issue for instance where some person living in Wicklow objects to a pylon in Donegal and causes delays to a scheme;

*I'm talking about the person who is living in Wicklow objecting to the pylon in Donegal and that happens a lot. There are serial objectors who... worse than that, there are people who are providing a service, who are objecting to others providing a similar service. That is clearly anti-competitive.*

Deputy Brendan Howlin, Leader of the Labour Party &
Former Minister for Department of Public Expenditure and Reform
The next interviewee from a planning perspective highlighted that Ireland is looking at a surge in population of 20% in the decades ahead and that there is great potential for the country to plan economic development in a sustainable and strategic way. The importance of international connectivity is also stressed for Ireland as a small country and from an environmental perspective we are well placed and may have an advantage over other countries in this respect. The interviewee also stressed the importance of people and not only the need to retain the people we have, but also to attract more people to grow the economy in an efficient manner;

The expected surge in population of approximately 20% and how that is going to look and feel into the future. I think actually that Ireland's got great potential to provide incredible diversity and has huge advantages going for it that are going to become really important in the future. . . I think we have very good connectivity internationally for a small country, it's important I think we have a lot of things going for us we are English speaking within the European Union with significant relationships built up internationally. Environmentally we have been described by James Lovelock, who would be one of thinkers on early climate change, he describes Ireland as one of the 'life rafts of humanity' that we are potentially in that kind of goldilocks location that we won't struggle as much as other locations. . . our important resource which is people, we could lose them we are losing them for example nurses and doctors. However, equally we can gain significantly people coming into our country and adding to our economic muscle effectively. I think that for me all distils down into we have to obviously be efficient economically but also good at making places that people want to live.

Mr. Pio Condon, Senior Planner,
Policy Unit, Cork County Council

Finally, the interviewee outlined the importance of getting this plan 'right' for future generations of our citizens

It's a big opportunity so we are about to plan for the next 22 years but it might be between 2040 - 2050. We are going to cater for an extra million people so we are going to make places for a million people to live and with the households they will form and with the reducing size of households across the country that's going to mean an extra half a million homes. This is a huge opportunity for this country to reframe itself and it should be exciting and it is going to be really important to do it well.

Mr. Pio Condon, Senior Planner,
Policy Unit, Cork County Council
The next interviewee highlighted from a political perspective that the desire and objective in Project Ireland 2040 is to create a 'quality of life' where people will want to live;

*We are now planning for quality of life, we are not planning for houses we are planning for what towns and villages should look like as compared to what housing estates should look like, that's the difference.*

Mr. Simon Coveney TD,
Tanaiste & Minister for Foreign Affairs
4.3 Summary

In this chapter the researcher has presented the analysis of the findings from the primary research conducted with nine semi-structured interviews. The objective of this is to establish the benefits of infrastructure in economic development, to review Ireland’s performance in strategic planning, to identify current impediments to the delivery of infrastructure and to assess the best methods of funding capital infrastructure. The key themes explored in this chapter include:

- Key Impediments to the delivery of infrastructure
- ‘Brexit’ threats and opportunities
- Strategic planning in Ireland past and present performance
- Current planning regulations issues
- Project Ireland ‘2040’ NDP and its importance
- The Irish political System too local for a national perspective
- Lessons from the last Recession
- Public versus private funding of infrastructure in Ireland

Chapter 5 will discuss the research findings in more detail and highlight recommendations for practice and for future research. Final conclusions will also be outlined in the next chapter.
Chapter 5 Main Research Findings, Recommendations & Conclusions

5.1 Introduction

This chapter presents an evaluation of the findings of the research completed, which comprised of nine semi-structured interviews. The interviewees were carefully chosen to ensure that all viewpoints were collected in the data. All interviewees are practitioners or interested parties in the development and delivery of infrastructure in Ireland. This study looks at strategic planning in Ireland in delivering infrastructure, where infrastructure is defined in a broad manner relating to areas in transportation, education, housing, digital connectivity, energy provision, utility provision, etc.

For consistency purposes the researcher has maintained the same headings from chapter 4, namely:

- What is critical infrastructure?
- Impediments to the delivery of infrastructure
- 'Brexit'
- Strategic planning in Ireland
- Current planning regulations
- Project Ireland '2040' National Development Plan
- The Irish political System
- Lessons from the Recession (2009)
- Funding infrastructure in Ireland

The analysis and conclusions that follow are based on the researcher’s primary and secondary research. This chapter presents a summary table of the key conclusions from this study and recommendations for the future delivery of infrastructure in Ireland. Recommendations for further research study are also presented in this chapter.
5.2 Critical Infrastructure in Ireland

A common theme to emerge from this research is the urgent need for the delivery of housing. Over 66% of interviewees who contributed to the study highlighted housing as the most critical infrastructure that needs to be implemented. The research gathered has shown there are two drivers to the housing crisis. First, the social need to provide adequate housing for citizens. "The idea of having affordable housing is critically important. We need to prioritise investment in having a functioning housing market and a rental market" (chapter 4 page 42). Second, housing is a major challenge to economic growth as the state does not have adequate housing to cater for employment growth. "It's a major challenge in terms of economic growth, quite simply we don't have enough accommodation for the employment growth that's coming down the track" (chapter 4 page 40). This finding is in line with Power (2018), who previously outlined that Ireland needs to increase its house supply urgently and outlines the lack of housing poses a serious challenge and threat to the economy and our national competitiveness.

22% of interviewees who contributed to the study raised the importance of energy provision and grid integration with the UK and in a post Brexit context, mainland Europe. "I think the biggest infrastructural problem we're facing is grid integration, ESB grid integration . . . and I think there is a need as well for an interconnector with continental Europe because of the impending Brexit situation" (chapter 4 page 41).

5.3 Impediments to the Delivery of Infrastructure

A significant finding emerging from this study is that funding, or the lack thereof, is an impediment to delivery of infrastructure. More importantly, the speed at which funding is made available is critical. This is supported by the Chief Executive Officer of Cork County Council, who outlines that although the latest national development plan was launched earlier this year - 2018, his expectation is that significant infrastructure funding will not be made available until 2021. "The speed at which money is available to us would be the most critical thing. I recognise the fact that not until probably 2021 that there's likely to be a significant release of Government funds" (chapter 4 page 44). Approximately 90% of interviewees who responded to this question highlighted finance and funding as the main impediments to delivering infrastructure in Ireland.
Another finding of this study is the fact that delays in funding leads to overall delays in the implementation of national development plans. These delays result in a ten year development plan being pushed out much further. “A lot of the infrastructure development that we have planned for now is planned over a ten year plus period” (Chapter 4 page 44).

Loughlin et al (2018), outlines criticism of the Government’s Project Ireland 2040 plan by opposition parties of the Dail as repackaging of up to 179 previously announced schemes. This finding is supported by this study as delays can lead to numerous projects being listed as objectives in multiple national development plans.

5.4 Brexit

The research has highlighted two areas of concern in relation to delivering infrastructure in Ireland in a post ‘Brexit’ environment. First, the impact on UK based companies tendering for infrastructure projects in Ireland and the impact on competition in the market place. Second, the need to develop our ports, including transportation links to ports, in order to increase connectivity to mainland Europe in a post ‘Brexit’ scenario. The development of our ports has also been highlighted as providing opportunities for regional development.

43% of interviewees highlighted the concern that ‘Brexit’ may have with regard to competition in the delivery of infrastructure projects in Ireland in the scenario where UK companies may be subject to tariffs when tendering for projects within the EU – “I would see the partaking of British companies in PPP’s... they will be less likely to enter into the fray and deal with all these bureaucratic difficulties and that will affect competition” (Chapter 4 page 46).

28% of interviewees stressed the importance of our ports in a post ‘Brexit’ environment. Plus the development of transportation links to our ports. The research also finds that ‘Brexit’ may also provide opportunities for regional development. The availability of ports such as Cork and Rosslare which will serve to create economic development due to their direct connectivity to mainland europe. “There is potential that Brexit could give opportunity for the Port of Cork in terms of development. It would be advantageous as an island to have port infrastructure developing and expanding and
thus particularly good for this region” (chapter 4 page 47). Irish haulier and shipping companies have brought forward direct routes to mainland Europe with the development of ‘mega vessels’ between Dublin Port and Zeebrugge in Belgium and Rotterdam in Holland, Brittany ferries have also launched their new route between Cork and Santander in Spain (Crisp & Murray, 2018).

5.5 Strategic Planning in Ireland

A very consistent view emerged from the study illustrating that Ireland has performed poorly from a strategic planning perspective with 100% of interviewees agreeing with this view. A common theme to emerge is the perception that Ireland generally appears to concentrate it’s economic analysis in the present and does not place enough emphasises on long term economic analysis when analysing the viability of projects. “We’re very poor in strategic planning in general, we lack ambition and economic analysis in this country is...basically is to stress test the economic viability of any project now, we don’t really believe in future proofing” (chapter 4 page 51).

An interesting finding from the research draws a distinction between national and regional planning. Where there is evidence of a failure on a national level, the National Spatial Strategy of 2002 (Ref DoELG, 2002] is cited as an example of a failure in planning on a national level, whereas, the regional housing plans have proved effective at regional and local level. “The National Spatial Strategy was never delivered on . . . that’s why I think it was a failure. However, at a regional level, I think the likes of the housing strategies have certainly been highly effective” (chapter 4 page 50).

Other findings to emerge from this study in terms of strategic planning highlight the lack of discipline in following through on earlier plans. The Buchanan report in 1968 is cited as an example which attempted to promote spatial development but was not followed through and ultimately was not successful. “I think that our strategic planning is going to have to be a little bit more disciplined. . . the Buchanan Report, were very forward thinking kind of narratives based on a number of economic centres” (chapter 4 page 51). This view is in line with Johnson (1994) and Scott (2006) as previously discussed in chapter 2.
5.6 Current Planning Regulations

In response to the question of what be done to improve our planning process, 88% of interviewees outlined that in their view the planning process needed to be improved in terms of the timely delivery of national infrastructure projects. "Time and time again we hear about projects being delayed. There are appeals to local authority planning's to Bord Pleanala, appeals to courts including the high court and the supreme court" (chapter 4 page 53).

Another common thread in the delays in the planning process centered on the role played by 'serial objectors' as outlined by 55% of interviewees. "I think the biggest and most difficult thing to deal with is third party objections. That is non-effected parties having the right of appeal" (chapter 4 page 55).

22% of interviewees also highlighted the importance of planning for 'quality of life' rather than planning for houses per se. Planning to create towns and villages where people will want to live. "We are now planning for quality of life, we are not planning for houses but we are planning for what towns and villages should look like as compared to what housing estates should look like, that's the difference" (chapter 4 page 78).

22% of interviewees also look to widen the scope and application of the Compulsory Purchase Order (CPO) mechanism for critical national infrastructure projects other than roads. "We should be using compulsory purchase orders more, we only do it for roads" (chapter 4 page 54). Also in terms of the CPO process, allowing compensation to parties located near a development not currently catered for, compensated through existing compulsory purchase schemes and the creation of an independent body 'honest broker' to determine appropriate compensation level for impacted parties. "Simply accept, that there are some people who will have a loss from a project, compensate them for their loss and move on and get things done more quickly" (chapter 4 page 55). Finally, in terms of the CPO process, any compensation should also consider the increase in a property's value as a result of infrastructure development in determining the overall compensation figure. "It actually increases the value of land. So there is a windfall gain, there should be some form of windfall calculation associated with the CPO process also" (chapter 4 page 73).
An interesting finding from the research is the view that more emphasis should be placed on applications being plan-led rather than site-led, i.e. there are examples where projects are required based on national policy but the planning process lasts for years because the wrong site has been chosen. "Should be more plan-led than site-led, what tends to happen here" (chapter 4 page 54). Roche (2018), outlines the recent decision by An Bord Pleanála to grant a hazard waste incinerator in Cork Harbour which was criticized by local politicians as the wrong location for the development. The initial application for an incinerator at the site commenced in 2001 and the latest decision (2018) is likely to be appealed again to the high court by local environmental groups. The research carried out for this study substantiates this view, applications which may have the support of national policy but are 'site-led' can lead to the wrong site being chosen. This results in strong local opposition leading to very significant delays. In the specific aforementioned case of a hazard waste incinerator located in Cork Harbour the planning process has taken 17 years to date with further appeals likely to be made.

Another suggestion arising out of the research into the speeding up of the planning process included removing the right to appeal planning decisions made by the local authority below a sensitivity threshold (possibly set by environmental thresholds). "Having two bites of the cherry for people who have made observations and then subsequently object to the board, I wonder is that questionable" (chapter 4 page 53).

Finally, another interesting finding to emerge from the research is the idea of a 'presumption of planning'. If a critical infrastructure project of national importance is proposed in accordance with national and regional guidelines, i.e. rather than looking for reasons to grant planning, the application would be looked at from the perspective of what are the reasons for not granting planning. "If it fitted within the criteria of critical and second was it supported by planning policy . . . there should be a presumption that they will get permission and that the application process should be looking for reasons for not granting it, rather than the other way around" (chapter 4 page 54).
5.7 Project Ireland ‘2040’ National Development Plan

77% of interviewees regard the Project Ireland 2040 National Development Plan as ambitious, radical and a major improvement over previous plans “I think it’s a vast improvement over the national spatial strategy it’s a bit more radical” (chapter 4 page 59). Another important finding to emerge from the research is the promotion of urban centres or clusters in the 2040 national plan. “I suppose the national planning framework is rightly very focused on the urban growth of five main urban centres, at this point in time. That’s correct, unless we get those five major urban centres developed significantly, then as an economy we’re not going to maximize our potential” (chapter 4 page 58). This finding and the importance of clusters to drive national economic growth, is supported by Huggins and Izushi (2015) and Porter (2003) as previously discussed in chapter 2.

Although 77% regard the Project Ireland 2040 plan as positive and ambitious 89% of interviewees have concerns in terms of the implementation of the plan and question whether it will be resourced adequately “How serious are the Government in terms of implementation” (chapter 4 page 58).

23% of interviewees were outrightly sceptical of the plan and its objectives, noting in particular the Government’s launch of the plan, which one interviewee outlined as ‘too hyped’ and took from the strategic nature and importance of the plan. “I mean, number one is, it was too hyped” (chapter 4 page 59).

33% of interviewees also view Ireland’s 2040 National Plan as a generational opportunity to plan in a sustainable way for an increase in Ireland’s population and growth “It’s a big opportunity, as we are about to plan for the next 22 years but it might be between 2040 - 2050 we are going to plan for an extra million people” (chapter 4 page 60) and “it is going to be really important to do it well” (chapter 4 page 77).

In terms of developing strategic national plans one interviewee a Professor of Economics at DCU Business School, stresses the importance of first establishing the assets that we have and establish where we need to get to, and then develop a strategic
plan to get there. "We get fixated on new things and forget about the stuff we’ve got... we don’t do that and that is strategic planning to me it’s a fundamental part of strategic planning" (chapter 4 page 76).

5.8 The Irish Political System

Although not all interviewees responded to this section of the study a number of interesting findings arose in relation to the current Irish political system with regard to the delivery of infrastructure projects. The general theme from the research is that national politicians are too involved with local issues and this may be in a large part due to multi-seat constituencies and the competitiveness between fellow local deputies. "Well it’s fair to say that the current political system does encourage national politicians to get very much involved in local matters and I don’t think that’s necessarily helpful" (chapter 4 page 61) and “It’s a fact that TD’s are competing with other TD’s in their constituency” (chapter 4 page 62).

Of those interviewees who did respond to this section of this study 71% did think that either a hybrid or the German Federal System – where constituents vote for both local and national representatives – could be looked at in an Irish context. “I know the German system... there’s no doubt that the type of electoral system we have means that local concerns whether they are right or wrong (and often they are not correct), do play a role” (chapter 4 page 62).

The research also highlighted earlier work by an all party Dail Eireann committee which looked at Irish electoral reform. This was outlined by an interviewee, the current leader of the Labour Party. "We would create in Ireland maybe 90 single seat constituencies. Then we would have a top up from a national list to get proportionality” (chapter 4 page 62).

Another interviewee, the Tanaiste and current Minister for Foreign Affairs, outlines that politically this would require a change to the constitution and a referendum and he did not see the support for such a proposal. Furthermore, he stated having experienced the UK single seat constituency structure he preferred the Irish system “Politically it’s not going to happen, in order to do this you need to change the Constitution and there is no way people will vote for a change in the Constitution... I think Irish people are very
sceptical of political change coming on the back of recommendations of politicians” (chapter 4 page 63).

5.9 Lessons from the Recession (2009)

The overall main 'lesson learnt' from the recent recession in this study is that Ireland needs to act prudently economically and not to repeat past mistakes in terms of the economic management of the economy "In good times, governments should run surpluses that they spend in bad times" (chapter 4 page 65).

Prudent management will allow for strategic long term investment in infrastructure which can help cushion the impact of a recession on a national economy "I think you should be in a position where during a recession you can continue with your projects because that actually helps cushion cuts as a policy" (chapter 4 page 66).

22% of interviewees stressed the importance of 'ring fencing' funding for capital projects. "Funds should be identified and ring fenced for that project. Otherwise the wind will change direction and the project will get stopped and it's very inefficient economically." (chapter 4 page 64). 22% of interviewees also outlined the importance of planning and design during a recessionary period in order to be ready to proceed when economic circumstances permit. "I'll come back to my original point. A time of recession is the best time to plan" (chapter 4 page 65).

5.10 Funding Infrastructure in Ireland

On the main question of whether infrastructure projects should be funded either publicly or privately, the research has shown that 66% of interviewees would prefer to see public funding for public infrastructure projects. The interviewees question the premium paid to the private sector for public projects and highlight the inadequate risk transfer to the private sector under Public Private Partnerships (PPP's). "There is a significant risk of relying too much on the private finance and long term we are paying far greater to private financiers" (chapter 4 page 69) and "When it comes to PPP's they have not always, perhaps the majority of them, have not operated the way they should. There wasn't a sufficient transfer of risk to the private" (chapter 4 page 71).
Another reason for the use of PPP schemes is what is termed 'off balance sheet' where as outlined by Duggan (2013), in chapter 2, the Government can improve the fiscal balance by removing large capital investments off the Government fiscal balance sheet. One interviewee, a Professor of Economics at DCU Business School, does not accept this view and outlines the state will have to pay for its liability in any event and thus the expenditure should not be removed from the Government balance sheet. "I don't really buy these sort off balance sheet arguments it maybe off balance sheet but you're going to have to pay for it anyway so there's no free lunch here" (chapter 4 page 71). This view is supported by Hall (2008) and Engel et al (2010) and as outlined by Duggan (2013) in chapter 2, Eurostat rules of how a Government reports its expenditure may change at some point in the future to reflect this view. If this were to happen it would remove a major reason why PPP's have been used extensively by the Irish Government in recent years.

Notwithstanding the above, 22% of interviewees outlined that PPP's have an important role to play and the funding mechanism for delivering infrastructure projects depends on the type of infrastructure being promoted, for example PPP schemes have delivered for road schemes where tolling has been used to finance the project. "I think depending on the project PPP's can be a really good way of funding as in the case for road projects, if the PPP includes a tolling element sometimes it makes sense" (chapter 4 page 72).

The research has also highlighted that capital expenditure is expected to increase next year. An interviewee, the Tanaiste and current Minister for Foreign Affairs, outlined the importance of 2019 in terms of the national budget deficit. Ireland is expected for the first time in ten years to have a budget surplus in 2019 and the fiscal rules that are applied in the Euro zone relax quite significantly. This implies that Ireland will be in a much more advantageous position next year in relation to government capital expenditure "We won't have a deficit after this year for the first time in a decade... and once you are back into balancing your budget territory then the EU fiscal rules are far more lenient as to what you can spend... Therefore, Ireland will be in a much better place from next year on in terms of expenditure" (chapter 4 page 72).
In terms of the suggestion of setting up a National Infrastructure Bank to better finance infrastructure projects in Ireland, an overwhelming 88% did not see the need for an additional funding body in Ireland. The interviewees outlined that current structures should be adequate or that existing bodies such as the National Asset Management Agency (NAMA), whose remit is likely to change in the coming years, could be given the brief to deliver infrastructure. "I personally don’t think there’s a need for a national infrastructure bank to deliver that, I think it can be delivered through the institutions that are already present" (chapter 4 page 69).

22% of interviewees outlined the importance of regional control of budgets or financial autonomy within national parameters and national metrics to ensure delivery. The Government’s housing strategy is cited as an example of where regional financial autonomy has delivered "Perhaps a good example and what has worked exceptionally well is the governments housing strategy... we knew the funding was there... we knew what the targets were and we met and achieved them... but we don’t have that for water, for roads infrastructure and we don’t have it for broadband" (chapter 4 page 74). This view is supported by Hansen & Ferlie (2014), who outline that administrative autonomy is an important factor for public organisations where strategic models promoted by Porter (1990) can be applied, as referred to in chapter 2.

The next section will present a Summary Table of the research findings from the primary research.
Table 5.1 Summary Framework of Research Findings

**What is Critical Infrastructure**

- Housing to cater for social need and to cater for economic growth and all necessary infrastructure to support it.
- Energy provision and grid integration to mainland Europe particularly within Brexit context.
- Development of ports and transportation links to our ports particularly within Brexit context.
- Completion of the Motorway network.

**Impediments to the Delivery of Infrastructure**

- The lack of a steady finance stream and the lack of speed at which finance is made available.
- Delays in the planning and appeals process.

**Brexit**

- Impact in a post Brexit environment on UK companies tendering for contracts
- The importance of our ports in facilitating future economic growth with mainland Europe
- The opportunities this may bring to regional growth in the South and South East regions

**Strategic Planning in Ireland**

- Ireland has historically performed poorly from a strategic planning perspective.
- The National Spatial Strategy (2002) is considered a failure in terms of delivering a new spatial strategy.
Evidence that on a regional and local level strategic planning has worked.

More discipline and focus to follow through on national development plans is required than has been the case up to now.

Current Planning Regulations

- The current planning process needs to be improved in terms of timely delivery of infrastructure projects.
- The role and part played by ‘serial objectors’ needs to be addressed.
- The scope and application of the Compulsory Purchase Order planning mechanism could be broadened from roads to other infrastructure areas.
- More emphasis on critical infrastructure projects being plan led as against site led.
- Review the rights to appeal for applications below a specific threshold.
- The concept of the ‘presumption of planning’ for critical infrastructure projects.
- Planning objectives for the future will try to create ‘quality of life’ locations to drive sustainable economic growth.

Project Ireland ‘2040’ National Development Plan

- Ireland ‘2040’ National Plan regarded as ambitious, radical and a major improvement over previous plans, some concern that the launch of the plan was ‘too political’.
- Implementation of the plan and adequate funding will be critical for its success.
- The plan is a generational opportunity. It is very important that it should be implemented successfully.

The Irish Political System

- National politicians are too involved in local politics.
- Agreement that a hybrid type federal political system would be preferable to current system. Politically very unlikely to happen.
### Lessons Learnt from the Recession (2009)

- The importance of running the economy prudently to ensure a steady funding stream to deliver infrastructure.
- 'Ring fencing' of funding to particular schemes to prevent significant delays.

### Funding Infrastructure in Ireland

- The research highlights that the majority of interviewees would prefer public rather than private funding of national infrastructure projects.
- Concern about the premium paid and the level of risk that is actually transferred to the private sector under Public Private Partnerships (PPP) schemes.
- PPP's may be appropriate to the delivery of certain infrastructure schemes e.g. toll road schemes.
- Concern that EU financial reporting may change and impact on the desirability of using PPP’s to deliver schemes in the future.
- The importance of regional financial autonomy.
- Rather than creating new infrastructure delivery entities, utilizing existing bodies or agencies in the current positive economic climate.
5.11 A Model for Practice for Improving the Planning Process

One of the main findings of this study is the delay in the planning process with regard to the delivery of critical infrastructure and the length of time taken in the appeal process.

Taking into consideration the contributions of the interviewees in this research, the researcher has developed a model for practice to improve the delivery times for the planning process. Figure 5.1 outlines a flow chart of the recommended planning and appeal process. The primary attributes of this model include the following:

- The removal of the appeal process below Environmental Impact Statement (EIS) requirements, i.e. the relevant local authority will decide sub threshold applications with no right of appeal.

- The introduction of a planning screening process. Spurious observations received by the planning authority not from the location of the application and which offer no relevant expertise relevant to the application (i.e. environmental concerns) are removed from the process.

- The extension of the Compulsory Purchase Order process to other areas of critical national infrastructure to include water, wastewater and energy infrastructure provision.

- The removal of the right for a judicial review of An Bord Planala's decisions but the insertion of a ministerial right to set aside a decision by An Bord Planala within a specified timeframe.

Further recommendations arising out of the research themes are outlined in section 5.3 Recommendations for the Future.
5.12 Recommendations for Future Practice

This research study has found that Ireland has performed poorly from a historical context, with regard to strategic planning and the development of critical national infrastructure. The research has also found that significant impediments to the delivery of infrastructure exist in terms of the lack of steady funding streams and delays in the planning process.

This research study now recommends that changes should be made to the planning and appeal processes to reduce delays in reaching decisions. Changes recommended by this study include the removal of the appeal process below set environmental thresholds, a new screening process, the removal of judicial reviews of An Bord Pleanala decisions and the insertion of a ministerial right to set aside a decision by An Bord Pleanala within a specified time (see figure 5.1).

The research has found that public funding opposed to private funding, is preferred so as to ensure value for money on a long term basis. The role of Public Private Partnerships (PPP's) or private funding for infrastructure projects should be limited to specific types of infrastructure projects where there is a clear transfer of risk to the private sector. The research has also found that changes to EU fiscal rules going forward may make the use of PPP schemes less attractive to Governmental Departments going forward.

The importance of a consistent and steady funding stream to finance infrastructure projects is also a recommendation of this research and the importance of 'ring fencing' funding to a project once the project has commenced.

Another recommendation of this study is the promotion of regional financial autonomy. Where strategic regions in the country are given budgetary control with national metrics and performance indicators so as to ensure delivery. The research has shown that this is working well in terms of dealing with the current housing shortage and could be rolled out into other areas such as fibre broadband provision, water services and energy saving projects.
In terms of Brexit and its impact on the delivery of infrastructure in Ireland, this research study recommends the focus on the connectivity of our ports to the existing motorway and rail network thus improving transportation efficiencies with mainland Europe. This study also recommends discussions in terms of potential tariffs on UK construction companies in a post Brexit context. The importance of minimizing tariffs in this sector should result in ensuring competitiveness in the Irish market going forward.

This study recommends the full implementation of Project Ireland 2040 National Development Plan for the sustainable economic development of Ireland for the next two decades. The research has shown the plan to be perceived as both ambitious and radical and offers a generational opportunity. The research highlights the importance of the proper and efficient implementation of the plan and it particularly recommends adequate funding at the commencement of the plan to ensure its success.

5.13 Recommendations for Future Research

The researcher accepts that this study was limited by time and resources available to the researcher. Further study on the approach of other European Countries to the implementation of EU environmental directives and how this is applied through their respective planning regulations would be beneficial as a comparison to current Irish practice. Similarly, a comparative study of how other European states secure planning for major infrastructure projects would help to create a picture of best international practice. The study could consist of interviews with senior officials dealing with the delivery of national infrastructure in a number of countries contributing to a qualitative based research project.

The researcher also acknowledges that recommendations outlined in this study may require legal scrutiny to assess their impact on individual rights. Further research therefore, could be undertaken to look at the legal implications of widening the Compulsory Purchase Process to other areas of infrastructure. A qualitative interview based study with interviews with leading law practitioners and legal academics to assess the legal implications of the proposed planning changes.

Further research on the benefits, or otherwise, of Public Private Partnerships could be looked at on a 'case study' basis. A longitudinal study on a suitable infrastructure
scheme could be selected from commencement of the scheme to the end of its design life. This study could establish valuable factual evidence of whether or not the particular scheme returned value for money for the state.

Similar to the longitudinal study outlined above, a second longitudinal study following the implementation of the Project Ireland 2040 National Development Plan could also be undertaken. The study, which could report its findings at intervals during the lifetime of the plan, could serve as an indicator of how effectively the plan is being implemented. The study could also follow regional development and propose corrective actions to ensure that the objectives of the plan are being met.

Another area which the researcher would recommend for research is the role which Irish Ports will play in a post Brexit environment. The introduction of potential import tariffs between the UK and the EU will focus attention on the transportation efficiencies in terms of linkages from Ireland to mainland Europe. A 'case study' looking at the existing practices, current operational issues and limitations of Irish Ports could highlight potential improvements. The implementation of which would be both timely and opportune.

Finally, a study of international political systems and how effectively they deal with implementing national plans and delivering strategic national infrastructure could also be undertaken. Given the limited resources available to the researcher it was not possible to further investigate further the German Federal system. This system has both national and regional representation, sometimes referred to as a 'hybrid' political system. Further research could be carried out to see how this 'hybrid' system or other similar political systems, could be beneficial from an Irish political context. Interviews with leading EU politicians and senior EU civil servants who have experience and exposure to differing EU political structures in a qualitative study could add significantly to the knowledge base in this area.
Conclusions

A clear conclusion of this research is that Ireland has historically performed poorly in strategic planning and in the delivery of critical national infrastructure. The research highlights that Ireland generally appears to concentrate its economic analysis in the present and does not place enough emphasis on the long term. Therefore Ireland lacks a strategic viewpoint. A historical review of the economic performance of Ireland since its foundation, repeatedly shows the cyclical nature of the Irish Economy from periods of significant economic growth 'boom' to significant recessions 'burst'.

A key conclusion of this study is that to ensure steady funding for the proper sustainable economic development of the country, prudent financial management is required. As summarised in this study “In good times, governments should run surpluses that they spend in the bad times”.

A significant and surprising finding of this research is that state funding is favoured over private funding so as to ensure that value for money is achieved in terms of capital expenditure on large infrastructure projects. The research has found that the premium paid by the state and the lack of risk transfer from the public to the private sector in Public Private Partnerships has led to questions about their long term financial value. The research has also found that changes to EU fiscal reporting rules may make PPP schemes less attractive to Government Departments going forward. However, their use can be appropriate in certain types of infrastructure projects.

The research highlights current impediments to delivering infrastructure. The implementation of national development plans are primarily due to the lack of steady streams of funding along with delays in the planning and appeal process. This study proposes a number of recommendations to address these issues. These include significant changes to the planning process and the promotion of regional autonomous funding which has been shown to be effective in dealing with the current housing shortage. This study also concludes the importance of 'ring fencing' funding to specific infrastructure projects so as to ensure delivery and also the importance of ensuring funding is available at the initial stages of national development plans to ensure key objectives are met.
Finally, the research has shown that the Project Ireland 2040 National Development Plan is a generational opportunity for sustainable strategic development and is a very significant change in approach in comparison with previous plans. This study concludes, therefore, the necessity of implementing the plan in full thereby ensuring the proper sustainable economic development for the country. This would be a proud legacy to hand down to future generations to come.
Word count total from Chapter 1 to Chapter 5 inclusive is 33,111
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7.0 Appendices

7.1 Pilot Interview Guide Questionnaire
Research question:
Does Ireland lack Strategic Planning in delivering Infrastructure? Is it possible to better deliver Strategic Infrastructure and if so, what are the issues that need to be addressed.

INTERVIEW QUESTIONS

1. In your opinion what is the most critical infrastructure that Ireland currently needs, to promote economic growth and what sectors would you prioritise?

2. What in your opinion are the future infrastructural challenges facing the country that should be planned for now?

3. What in your opinion are the current bottlenecks in delivering critical infrastructure in Ireland today and what steps would you recommend to improve delivery?

4. What in your opinion are the likely impacts of ‘Brexit’ that may have implications for delivery of infrastructure in Ireland?

5. What is your opinion of Strategic Planning in relation to economic development, in Ireland to date?

6. What, if any, changes would you make to current planning regulations that you think may be beneficial in delivering critical infrastructure?

7. What is your opinion of the latest Government Plan “Ireland 2040”?
8. What are your thoughts on the view that the current Irish political system may hinder a 'National Perspective' and therefore may hinder national strategic goals?

9. Are there any international political systems or structures that in your opinion could be beneficial to the Irish political system?

10. Are there any lessons you feel that could be learnt from the 2009 recession in relation to delivering major national infrastructure? (I note the cancellation of major infrastructure schemes in 2011 including Metro North and the M20 motorway scheme).

11. How in your opinion should major critical infrastructure be funded in Ireland today?

12. What is your opinion of the concept of a National Infrastructure Bank?

13. Are there other international methods of funding infrastructure that Ireland could learn from?

14. How in your opinion has Public Private Partnership's (PPP's) performed in Ireland to date?

15. Finally, after all we have discussed, have you any other suggestions or recommendations you would like to add?
Research objectives:
The objectives of this research are:

Part I. Establish the benefits of infrastructure in economic development and the promotion of growth in a nation's economy.

Part II. Identify current bottlenecks in delivering major infrastructure projects in Ireland today.

Part III. Review Ireland's performance in strategic planning in delivering major infrastructure and review Ireland's current plans to deliver it.

Part IV. Identify ways of assured funding for strategic investment plans in infrastructure

Thank you

Noel Murtagh
7.2 Interview Guide Questionnaire
Research question:
Does Ireland lack Strategic Planning in delivering Infrastructure? Is it possible to better deliver Strategic Infrastructure and if so, what are the issues that need to be addressed. Infrastructure is defined, for the purposes of this research, in a broad sense and is not specific to one area and may for example relate to transportation, housing, broadband, utility provision, etc.

INTERVIEW QUESTIONS

1. In your opinion, what is the most critical infrastructure that Ireland currently needs to promote economic growth and what are the future infrastructural challenges facing the country that should be planned for now?

2. In your opinion, are there any impediments in delivering critical infrastructure in Ireland today and if so what steps would you recommend to improve delivery?

3. What in your opinion are the likely impacts of 'Brexit' that may have implications for delivery of infrastructure in Ireland?

4. What is your opinion of Strategic Planning in relation to economic development, in Ireland to date?

5. What, if any, changes would you make to current planning regulations that you think may be beneficial in delivering critical infrastructure?

6. What is your opinion of the latest Government Plan “Ireland 2040”?

7. What are your thoughts on the view that the current Irish political system may hinder a ‘National Perspective’ and therefore may hinder delivery of national infrastructural goals?
8 Are there any international political systems or structures that in your opinion could be beneficial to the Irish political system in terms of the delivery of strategic infrastructure?

9 Are there any lessons you feel that could be learnt from the 2009 recession in relation to delivering major national infrastructure? (I note the cancellation of major infrastructure schemes in 2011 including Metro North and the M20 Cork to Limerick motorway scheme).

10 How in your opinion should major critical infrastructure be funded in Ireland today?

11 What is your opinion of the concept of a National Infrastructure Bank

12 Are there other international methods of financing infrastructure that Ireland could learn from?

13 How in your opinion has Public Private Partnership's (PPP's) performed in Ireland to date?

14 Finally, after all we have discussed, have you any other suggestions or recommendations you would like to add?
Research objectives:
The objectives of this research are:

Part V. Establish the benefits of infrastructure in economic development and define what is the most critical infrastructure in Ireland today.

Part VI. Identify any impediments in delivering major infrastructure projects in Ireland today.

Part VII. Review Ireland’s performance in strategic planning in delivering major infrastructure and review Ireland’s current plans to deliver it.

Part VIII. Identify ways of assured funding for strategic investment plans in infrastructure

Thank you

Noel Murtagh