Infrastructure and Capital Investment 2012-16:

Medium Term Exchequer Framework

An Roinn Caiteachais Phoiblí agus Athchóirithe
Department of Public Expenditure and Reform

November 2011

Executive Summary

1. Overview

This Report presents the findings of a Government-wide review of infrastructure and capital investment policy led by the Department of Public Expenditure and Reform. Within the context of tight fiscal constraints, the Government is committed to ensuring that the country's stock of infrastructure is capable of facilitating economic growth and that the enterprise development agencies have ample resources to foster opportunities for enterprise development and job creation.

Over the medium-term, there will be a lower level of resources available for capital investment. While not ideal, this is the reality of the fiscal challenge which the Government faces. The potential negative consequences of reduced capital spending are tempered by recent improvements in the economy's infrastructure, but it is anticipated that there will be a return to a more substantial Public Capital Programme beyond the period of this review.

The country's infrastructural and capital investment needs are a function of broad societal and economic developments. This review assesses the existing capacity of Ireland's infrastructure and identifies remaining gaps which must be addressed to aid economic recovery, social cohesion and environmental sustainability.

The approach identifies four main components of the investment strategy, namely:

- Economic infrastructure – encompassing transport networks, energy provision and telecommunications capacity.
- Investment in the productive sector and human capital – such as direct supports for enterprise development; science, technology and innovation advancement; supports for tourism, agriculture, fisheries and forestry; and capital investment in education infrastructure.
- Environmental infrastructure – including our waste and water systems and investment for environmental sustainability.
- Critical social investment – such as the health service and social housing programmes.

These pillars are the main components of a viable infrastructure base for a modern, competitive economy. This review seeks to ensure the appropriate level and sectoral allocation of investment, given the overriding fiscal pressures.

2. Investment Context and Budgetary Parameters

The starting point for this review is the conclusion of a major phase of Exchequer funded capital investment. Over the past decade or so, some €70 billion has been invested in infrastructure and the productive sector. Judged by a range of measures, the quality and quantity of the country's stock of infrastructure has been considerably augmented in recent years.

While there may be advantages to continuing with a high level of capital investment in order to give stimulus to the economy, the need to reduce public expenditure and close the fiscal deficit is a more compelling policy goal at present. The Government's Medium-Term Fiscal Statement sets the parameters for budgetary policy in the coming years. As a result of the process of this review, and in the context of setting the overall path of fiscal consolidation, the Government has decided that the Public Capital Programme needs to contribute further to achieving fiscal consolidation, and is confident that this can be done without major negative consequences for economic activity. Section 2 provides more detail on these points.

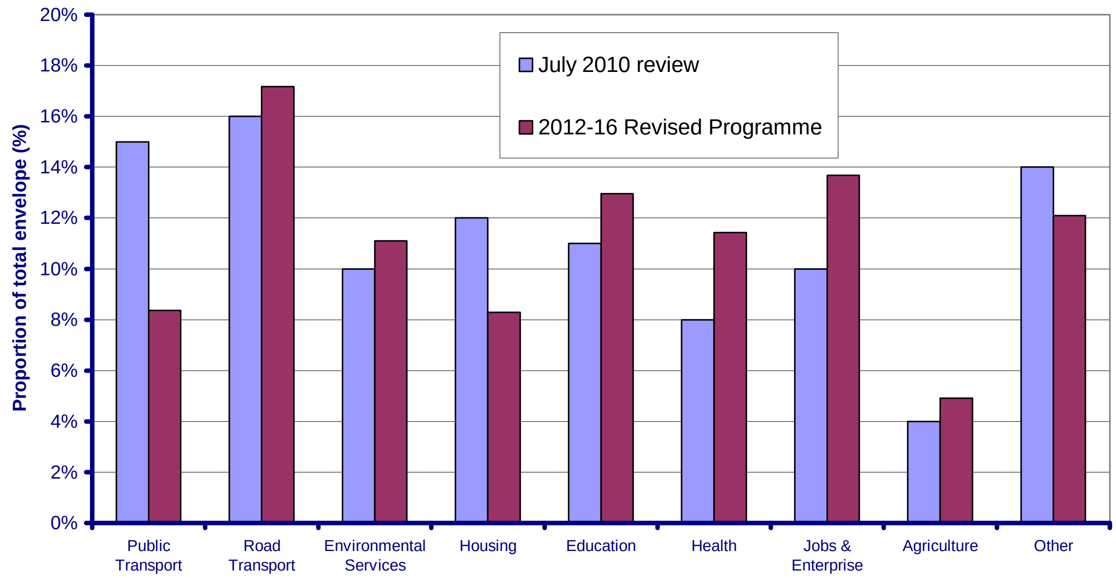
3. Infrastructure and Capital Investment for a Modern, Competitive Economy

New Priorities for Investment

Given the reduced level of resources available, sharp prioritisation of investment is paramount. This requires difficult trade-offs, but is mitigated by the enhanced quality of infrastructure across a range of areas.

The last major review of capital investment was published in July 2010. The present review represents a significant reprioritising of investment plans. As the chart below illustrates, health, education and jobs & enterprise spending represent a proportionately higher share of total capital investment, consistent with the priority afforded to these sectors by the Government.

Changing Relative Priorities: 2010 Review vs. Revised Programme



The box below expands on the key priorities which have emerged from this review.

Government Investment Priorities, 2012-16

New Schools

Unprecedented demographic trends will put pressure on our schools stock. By the conclusion of this investment framework, there will be an additional 70,000 pupils in school at primary and second-level. The allocations set out in this review cater for this major uplift in demand for places and involve the delivery of an additional 40 schools and expansion or new buildings for another 180.

A New National Children's Hospital

The Programme for Government pledges to protect health capital investment. This review delivers on that commitment, and in particular includes funding for the development of the new National Children's Hospital. Reflecting the importance of this project, a large upfront payment arising from the new National Lottery licence will complement Exchequer funding.

Job Creation and Enterprise Development

Creating jobs remains a top priority for Government. A range of reforms of activation and training are in progress in this regard. This review commits substantial resources to the Department of Jobs, Enterprise and Innovation to foster industry and creativity and lead an end to joblessness. Over the course of this investment programme, investment through D/JEI will be protected.

The sections below give an overview of the totality of investment plans set out in this Report.

Economic Infrastructure

Economic infrastructure has accounted for the major share of Exchequer and semi-State capital investment in recent years and this is reflected in the enhanced quality of the various networks now in place. Much infrastructural provision is delivered through commercial semi-State companies and the private sector and NewERA will also become major players in infrastructure delivery and management.

Amongst the main priorities over the medium term will be:

- Ensuring adequate maintenance of the National Road Network in order to protect the value of previous investments
- Targeting the improvement of specific road segments where there is a clear economic justification, including advancing two key PPP roads projects
- Development of the cross city LUAS line, BXD
- Continuing investment in the Railway Safety Programme, replacement Public Sector Obligation buses, upgrade of existing quality bus corridors (with emphasis on the Ballymun/Airport/Swords corridor) and a number of important cycling and pedestrian projects
- Developing the policy and regulatory environments to support the commercial sector in delivering next generation broadband technology, and committing Exchequer resources should specific instances of market failure arise
- Continued investment to enhance Ireland's tourism product offering

Investment in the Productive Sector

Along with supporting the productive sector by ensuring availability of enabling infrastructure, the capital programme also provides significant direct supports to industry.

Investment through the Department of Jobs, Enterprise and Innovation has been increased to record levels over the past number of years. While the need to address the fiscal target will require some reduction in funding to research and development, supports to industry will be maintained in excess of pre-recession levels when total capital expenditure was at its highest.

Over €800 million will also be invested in programmes through the Department of Agriculture, Food and the Marine, bringing major economic and environmental benefits.

As noted above, unprecedented demographic pressures demand ongoing investment in schools delivery and expansion. The Government will maintain sufficient investment to expand our stock of schools and cater for these pressures. In order to accommodate the increased numbers of pupils, over 20 new schools will be required at primary level and a further 20 at second level between now and 2017. In addition to these, over 180 existing primary schools and second-level schools in developing areas will need major extensions or new buildings. Funding is provided to meet these pressures.

In the higher education sector, projects with existing capital commitments in place will be completed. Infrastructure investment for DIT's proposed Grangegorman campus development will be postponed for the lifetime of the investment framework although planning will take place towards an initial PPP project, for possible completion in 2017.

Environmental infrastructure

Alongside structural reforms to the water sector, water services investment will be an important element of the Public Capital Programme. In the years to 2016, almost €1.6 billion of Exchequer resources will be committed. This will help ensure adequate capacity for economic development and meet pressing environmental targets.

In recent years the State has spent heavily to incentivise households and businesses to enhance energy efficiency. Reliance on State funding is not a sustainable model, and while Government supports have helped develop the market and promote awareness of the benefits of action, the market must be weaned off Exchequer funding. The Government will continue a significant level of support in the short-term but is committed to a transition to a non-Exchequer based funding model no later than the start of 2014.

There will also be continuing investment in flood defence and mitigation and forestry investment, both of which can bring significant environmental and economic benefits.

Social Investment

In line with the priority afforded to health capital investment in the Programme for Government, this review maintains existing planned levels of health capital spending. Accordingly close to €2 billion will be invested from the Exchequer in the period 2012-2016, augmented by funding from other sources.

This funding will support three high priority national projects, as follows:

- the National Children's hospital, as noted above
- the replacement of the Central Mental Hospital
- the National Project for Radiation Oncology

Priority will also be given to primary care centres, step down and long-term facilities and community care facilities such as day centres for older people.

There will also be further investment in social housing and two sports capital programmes will be delivered over the period.

4. Exploring Alternative Sources of Finance

Exchequer capital is just one source of funding for infrastructure and investment. The commercial State companies are also committing major resources to enhance our energy networks. Similarly the recently established NewERA – the Government's New Economy and Recovery Agency – will become a pivotal player in this field. Innovative policy measures such as the Strategic Investment Fund and obtaining a large upfront payment as part of the new National Lottery licence will complement the ongoing use of public-private partnerships as alternative sources of funding. The Department of Public Expenditure and Reform will step up engagement in these areas and explore all possible alternative funding streams. These issues are discussed in more detail in Section 4.

***

Taken together, the priorities set out in this review will ensure the maximum impact of investment and the facilitation of economic growth while closing the fiscal deficit.

Exchequer Capital Investment Framework, 2012 to 2016

Ministerial Vote Group	2012	2013	2014	2015	2016	Total
	€ million					
Agriculture, Food & the Marine	168	168	168	168	168	840
Arts, Heritage & Gaeltacht Affairs	44	38	36	36	36	190
Children and Youth Affairs	8	8	8	8	8	40
Communications, Energy & Natural Resources	104	85	80	79	77	425
Defence	9	9	8	8	8	42
Education & Skills	430	415	475	475	415	2,210
Jobs, Enterprise & Innovation	514	458	457	454	451	2,334
Environment, Community & Local Government	861	726	575	574	574	3,310
Finance	5	5	5	5	5	25
Foreign Affairs & Trade	4	4	2	2	2	14
Health	390	390	390	390	390	1,950
Justice Group	56	56	60	60	60	292
Public Expenditure & Reform [Less OPW]	0.5	0.5	0.5	0.5	0.5	2.5
OPW	100	100	100	100	100	500
Social Protection	10.5	10.5	9.5	9	7	46.5
Transport, Tourism & Sport	1,231	900	879	818	818	4,646
Unallocated Reserve				66.5	133.5	200
Total	**3,935**	**3,373**	**3,253**	**3,253**	**3,253**	**17,067**
Consolidation	*755*	*562*	*120*	-	-	

1 Introduction

1.1 Infrastructure and Economic Recovery

Economic recovery in Ireland will be enterprise-driven and export-led. It will involve Irish firms selling innovative products and services solutions on ever more competitive global markets. A range of factors are required to underpin this process and many are in place already. The Government can play a key role to facilitate the private sector in spurring on economic growth and job creation. Policy is working to restore the banking system and get credit flowing, to transform our approach to labour market and activation systems, and to deliver world-class human capital. Alongside these actions, Government Departments and Agencies and commercial State bodies are augmenting productive capacity in the economy through the delivery of essential infrastructure and through the provision of direct supports to the enterprise sector.

Investment in other areas is required too, in order to complement economic advancement with social provision, quality of life and environmental sustainability. This Report sets out the Government's medium-term infrastructure and capital investment strategy in the context of tightly constrained Exchequer resources.

1.2 Approach and Scope of this Report

The country's infrastructural and capital investment needs are a function of broad societal and economic developments. This Report notes the existing capacity of Ireland's infrastructure and identifies remaining gaps which must be addressed to aid economic recovery, social cohesion and environmental sustainability.

The approach looks at four components of the investment strategy, namely:

- Economic infrastructure – encompassing transport networks, energy provision and telecommunications capacity.
- Investment in the productive sector and human capital – such as direct supports for enterprise development and science, technology and innovation advancement and capital investment in education infrastructure.
- Critical social investment – such as the health service and social housing programmes.

- Environmental infrastructure – including our waste and water systems and investment for environmental sustainability.

These pillars are the main components of a viable infrastructure strategy for a modern, competitive economy. In assessing the suitability of the existing stock of infrastructure and level of investment under each pillar, the approach can be summarised as:

- Ensuring consistency of investment plans with the Programme for Government;
- Assessing the capacity of infrastructure to facilitate economic recovery, export growth and job creation;
- Identifying particular gaps which need to be addressed;
- Establishing the potential for funding investment through new or innovative sources; and
- Committing to Exchequer investment where necessary.[1]

Detailed reports were provided from Government Departments, having carried out examinations of their capital expenditure programmes and priorities. These reports informed in particular the sectoral analyses in the review. The review also benefited from consultation with a number of experts and relevant organisations. A list of organisations consulted is included in the attached appendix.

In addition, in tandem with the public consultation process for the Comprehensive Review of Expenditure, members of the public were invited to contribute suggestions as to how savings could be made from the Public Capital Programme.

1.3 Structure of this Report

The structure of this Report is as follows: Section 2 outlines the budgetary context which sets the scene for this review, Section 3 presents the findings of the review in relation to medium-term capital investment priorities and details the planned Exchequer allocations by policy area over the period. Finally, Section 4 discusses the potential of alternative sources of funding for investment to complement Exchequer funded and semi-State delivered infrastructure.

---

[1] This review sets the broad direction, level and sectoral split of investment. All individual project proposals will be subject to relevant Value for Money arrangements - including detailed appraisal – prior to the commitment of significant Exchequer resources.

2 Investment Context and Budgetary Parameters

2.1 The need for further capital reductions

The Department of Finance's recently published *Medium-Term Fiscal Statement* sets the parameters for Budgetary policy in the years to come. Considerable progress has already been made towards stabilising the public finances. Taking account of the latest available information, this year's General Government deficit is now expected to be 10.3 percent of GDP. This is ahead of target and a significant improvement on 2010.[2] Achieving this progress has required a wide range of difficult decisions to cut spending and raise revenue and these will help to secure further improvements in the budgetary position in the years ahead.

Yet significant challenges remain for Ireland. The large gap that still exists between Government spending and revenue must be closed. Continuing to run considerable deficits and borrowing to fund them is simply not viable. It is clear that the Public Capital Programme must make a further contribution to budgetary consolidation.

The starting point for this review is the conclusion of a major period of public capital investment in the economy. This process enhanced the stock of public capital and substantially narrowed the infrastructure gap which had previously hampered economic growth.

Public capital investment almost quadrupled in the decade up to 2008. Since 2000, some €70 billion has been invested through the public capital programme. The extent of the fiscal challenge faced has meant that allocations have necessarily fallen back since that peak.

Exchequer allocations will be lower again over the medium-term: meeting the commitments required to reduce the deficit is the major determinant of expenditure policy. To ensure adequate availability of competitive and quality infrastructure, therefore, will demand:

- ☐ Sharp prioritisation of public capital;
- ☐ The appropriate level of investment by the commercial semi-State companies;

[2] Department of Finance (2011) *Medium-Term Fiscal Statement*

- ☐ Regulatory and policy solutions to maximise efficiency and effectiveness in infrastructure development; and
- ☐ Harnessing potential alternative sources of funding for investment where they offer demonstrable value for money.

While the necessary reductions in Exchequer capital will require either postponement or cancellation of some projects in the short- to medium-term, the process of budgetary consolidation and closing the deficit will benefit infrastructure development in the longer-term. Recent commentary from the World Economic Forum accords with this view:

> … policy makers are being confronted with difficult economic management challenges… yet without a clear commitment to getting spending under control in the medium-term, countries will compromise their future ability to make pro-growth investments in areas such as infrastructure, health and education, which are necessary for sustained development and competitiveness over the longer term.[3]

The OECD's most recent Survey of the Irish Economy is also consistent with this position and contends that 'infrastructure spending should be deferred, as investment during the boom years means that there are few bottlenecks'.[4]

In addition the lower level of economic activity being experienced at present means that in some cases there simply is not demand for new projects. Therefore, to decide not to pursue capacity enhancing projects in the absence of a compelling business case, is the right choice at present. By accelerating the process of budgetary consolidation in the short-term, the prospects for investment in the longer-term – when it is required – are bolstered.

While the quality of the infrastructure may lag leading economies in some areas, there has been marked improvement in recent years.

Table 1 World Competitiveness Yearbook: Perception of Infrastructure in Ireland, 2005-2011

Year	2005	2006	2007	2008	2009	2010	2011
Score (max 10)	4.48	4.93	4.90	5.96	6.75	7.24	7.96

Source: IMD World Competitiveness Yearbook 2011 based on executive opinion surveys.

[3] World Economic forum (2011) *The Global Competitiveness Report 2010-11*

[4] OECD (2011) *Economic Survey of Ireland*

This stands to reason: the substantial investment discussed above has succeeded in improving the state of national infrastructure. In particular the national road network is a very visible legacy of the economic boom period, and once maintained, will provide the necessary capacity for some time to come. Similarly, investment over the last decade in research infrastructure is a further benefit that can help deliver quality products, services and employment over the years ahead.

Recent ESRI analysis supports this point and cautions about our reliance on perception based measures:

> Once objective measures are used in a comparison and relevant factors are taken into account the relative position of Ireland with regard to many infrastructures is considerably better than suggested by the subjective competitiveness rankings. For example once the population density, car ownership and the completion of major roads projects over the recent past are taken into account Ireland now has motorway density that exceeds the expected level.[5]

In addition the private sector is providing necessary capacity in some sectors. For instance there has been steady growth in broadband subscriptions and the thriving private market now involves annual revenues of close to €4 billion.[6] The private sector is continuing to invest in the region of €400 million to €500 million in the Irish telecommunications market each year, and the State has complemented this investment with Exchequer and EU funding to address areas of market failure.

In most cases then it is unlikely that economic activity is being constrained by the quality of infrastructure. Clearly, however, in a number of cases existing capacity is insufficient, such as water services in some locations or school capacity. While targeted Exchequer investment will play a role in addressing remaining gaps, the potential of using existing assets and / or regulatory and administrative solutions must be exploited.

For the medium-term, the core focus of capital investment must be the upkeep of existing infrastructure so as to protect the value of previous investments. In many cases, this will represent a better return on investment than new projects.

---

[5] Morgenroth E (2011) in Durkan et al ESRI *Quarterly Economic Commentary*

[6] Comreg (2011) *Quarterly Bulletin*.

Focus on... Maintaining Infrastructure Vs New Investment

Maximising value for money and economic and social impact should always be paramount objectives of public policy. In times of particularly scarce public resources - such as these - the need to make the most impactful spending decisions is all the more acute.

Ireland’s unprecedented level of capital investment delivered in the last decade made up substantial ground in bridging the infrastructure deficit. But the infrastructure delivered to date cannot be taken for granted. Roads must be resurfaced, equipment must be upgraded, and water networks must be improved on and maintained. In such a challenging fiscal environment, the question must be asked as to what is more beneficial: upkeep of existing assets or investment in new ones?

This point has been the subject of research internationally. There has been a considerable degree of consensus on the importance of, and potential economic returns from maintenance expenditure. Analysis has shown that for some countries, a higher return can be expected from reducing expenditure on new projects to finance maintenance of existing infrastructure.[7] For more developed economies there are clear benefits from maintenance expenditure in terms of enhancing the productivity of both the public and private capital stock.[8]

Intuitively it makes sense that if the most beneficial projects are prioritised, at some point the return on new investment declines and maintenance of original infrastructure represents a better use of resources than new project development. The key focus of public capital investment over the coming period will therefore be to protect the value of our existing investments.

2.2 Construction Sector Impacts

Further reductions are not, however, without negative consequences. A lower level of investment will have implications for the construction industry. While it is neither likely nor desirable that the construction industry return to its pre-recession levels, the scale of the adjustment in terms of both private and public sector activity may mean that the sector may have overshot its long-term equilibrium.[9] In the short-term however, it can be

---

[7] Rioja, FK (2003) *‘Filling Potholes: Macroeconomic Effects of Maintenance versus New Investment in Public Infrastructure’*

[8] Lee, Jin Wen (2002) *Public Spending on Maintenance and Imperfect Competition*

[9] CSO data shows that the construction sector made up 5.9 percent of the labour force in 2011. The average level in OECD countries over the period from 1980 to 2003 was 7.2 percent.

expected that activity will be at a lower level given the scale of development over the past decade or more and the overhang of property in some sectors.

A likely consequence of this contraction is some loss of expertise in the sector. While maintaining a higher capital envelope might offset this to a degree, the force of this argument is less immediate and compelling than the over-riding need to reduce the deficit and restore the public finances to a sustainable path.

While allocations are lower than in the past, it is important not to overstate the impact of reductions. Previously high levels of investment must be viewed as being part of a catch-up phase of investment, where investment worked to bridge the gaps in Ireland's infrastructural capacity, compared with other developed economies. The next phase of investment represents a steadier state, focused on infrastructure maintenance and targeted investment as appropriate.

2.3 Capital Investment and Employment

Capital expenditure is also often put forward as a stimulus to employment as the delivery of infrastructure can be labour-intensive. This depends however, on the type of project involved: typically, major construction projects are less labour intensive than often imagined whereas less expensive re-fit, refurbishment, and up-grade work tends to have a higher jobs impact. In terms of assisting employment creation, the most important contribution of capital investment is in providing the capacity for the economy to grow. In this regard, as discussed, there is already largely adequate infrastructural capacity in the economy.

Direct supports to industry have proved a more efficient and effective way to promote job creation, and under this investment framework, grants through IDA and Enterprise Ireland will be protected over the medium-term. Continued investments in research, technological development and innovation have been and will remain a pivotal element of our enterprise development offering. Sustained investments will ensure that Ireland remains an attractive location for foreign direct investment and a location in which to grow, develop and protect businesses and ideas. In terms of employment creation, these supports represent a better investment than simply pursuing construction projects.[10] There is however, a limit to the extent to which further investment through the development agencies can directly lead to new jobs being created. This is determined by the actual pipeline of investment

[10] Morgenroth, E (2009) *Irish Public Capital Spending in a Recession*

opportunities and the general attractiveness of Ireland as a location in which to do business.

Nonetheless, there will be employment benefits in the delivery of infrastructure and the more labour-intensive sectors are especially protected from reductions, such as school building. There will also be investment in energy efficiency (both through the Exchequer and alternative models) and this will provide further employment in 'smarter' construction. Over the medium-term, the planned roll-out of water meters can also help stabilise the contraction in the construction sector.

2.4 Maximising Efficiency: Forthcoming Reforms to Appraisal and Delivery Arrangements

Financial investment alone cannot be the sole approach to maximising infrastructural capacity. Given the severity of the fiscal constraints, all potential solutions must be explored before consideration can be given to additional Exchequer investment. There are also regulatory and administrative reforms which can be harnessed to assist in maximising the potential of existing assets or bring improved efficiency to the delivery of new projects.

Arising from consultations with Government Departments, the Department of Public Expenditure and Reform identified a number of blockages, inefficiencies and cost pressures associated with the capital investment programme. A number of common themes emerged. Some of the principal points are outlined below:

- Land costs are a significant proportion of the overall costs of building projects. Problems arising during land purchasing can lead to significant delays and extra cost pressures to projects.
- There is also a difficulty in establishing a market price at the moment, with a scarcity of readily available information about market prices being an issue.
- Land transfers between State Agencies can give rise to legal and administrative cost, delays and pressures.
- Having a wide number of State Agencies with independent capital programmes without formal coordination procedures can contribute to potential underutilisation of existing capital stock, market distortions and duplication.
- There is a need for better, more co-ordinated information and mapping for planning purposes.

In addition, it is intended to streamline and consolidate the Government's value for money arrangements. There is a need to improve the quality and coverage of programme evaluations and it is all the more critical that individual investment projects are supported by rigorous and objective appraisals.

The Department of Public Expenditure and Reform will publish proposals on these themes, together with a range of other Public Service reforms, shortly.

3 Infrastructure and Capital Investment for a Modern, Competitive Economy

3.1 Overview

Physical, technological and social infrastructure is a necessary condition for economic growth and industrial advancement. The availability of quality infrastructure has long been recognised as a critical input to productivity and competitiveness. Internationally, the Global Economic Forum's *World Competitiveness Yearbook* cites infrastructure as the second pillar of competitiveness[11] and the UK Government has included capital investment as one of the Five Drivers of Productivity[12]. The OECD has also pointed to the positive effect that government investment has on per-capita output growth.[13]

The importance of infrastructural capacity has long been recognised domestically also and has been the cornerstone of successive national investment plans since the late 1980s.

Economic recovery in Ireland will depend on the ability of the enterprise sector to trade successfully with innovative products and services in increasingly competitive global markets. The availability of competitively priced and high quality infrastructure is a necessary ingredient of any such strategy.

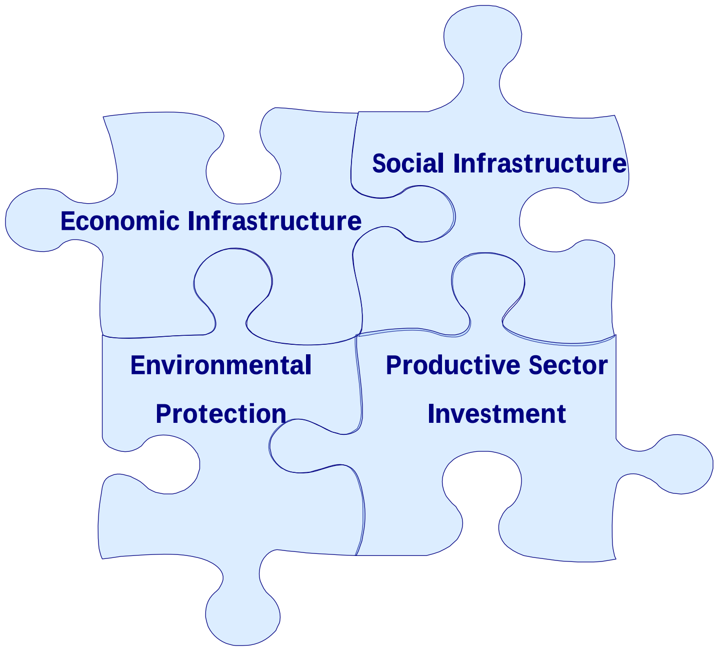
Yet the infrastructure requirements of a modern, competitive economy do not begin and end with roads and power plants for industrial development. Instead, a broader blend of factors should be present so as to complement industrial advancement with social provision, quality of life and environmental sustainability. Figure 1 below sets out the critical components of this mix.

[11] World Economic Forum (2010) *Global Competitiveness Report 2010 -11.*

[12] The other 'Drivers' are skills, innovation, entrepreneurship and competition.

[13] OECD (2003) *The Sources of Growth in OECD Countries*

Figure 1	Infrastructure and Investment Requirements of a Modern, Competitive Economy



Each component is assessed in the following sections of this Report in order to ensure consistency of investment plans with the Programme for Government; assess the capacity of infrastructure to facilitate economic recovery, export growth and job creation; identify particular gaps which need to be addressed; and commit to Exchequer investment where necessary.

The tight budgetary context will require innovative and non-Exchequer dependent solutions, difficult choices and the right prioritisation of limited expenditure.

3.2 Economic Infrastructure

The quality and quantity of the stock of economic infrastructure is a key element of the supply-side potential of the Irish economy and a critical input to productivity and competitiveness. It consists of transport networks necessary to move people and goods, vital energy to power industrial production and broadband and interconnection capacity for the exchange of information and ideas.

Economic infrastructure has accounted for the major share of Exchequer and semi-State capital investment and this is reflected in the enhanced quality of the various networks.

Much infrastructural provision is delivered through commercial semi-State companies and the private sector, rather than through traditional Exchequer funding. That is not to say however, that the State has no role to play: it is critical that the right policy and regulatory environment is in place to maximise efficiency and competitiveness in the delivery of new capacity and utilisation of existing facilities. In addition, the Government will commit the necessary funding in particular areas which are not favourable to private investment either through the existence of particular market failures, or for other reasons of public policy. Of course the scope for such direct Exchequer investment will necessarily be constrained by high-level fiscal policy. Finally, NewERA (the New Economy and Recovery Authority) and the Strategic Investment Fund, which were recently established by Government, will become major players in infrastructure delivery and management. Further information is provided in the box below.

Focus on… the Strategic Investment Agenda

The establishment of NewERA (the New Economy and Recovery Authority) and the Strategic Investment Fund (both commitments of the Programme for Government), under the National Treasury Management Agency (NTMA), was announced on 29 September. NewERA and the SIF are central to the Government's plans for job creation and investment and for reforming how the Government manages its semi State companies. It will also be instrumental in maximising our resources to enhance growth in the Irish economy.

Using existing NPRF resources and proceeds from the sale of State assets, subject to the agreement of the external partners, NewERA will work with line Departments and the private sector to develop and implement proposals for commercial investment, in line with Programme for Government commitments in Energy, Water and Broadband. It will also examine other commercial investments and build upon existing work by the NPRF by developing a Strategic Investment Fund (as a forerunner for a Strategic Investment Bank), which will seek matching commercial investment from private investors, and will put in place a commercially-financed investment programme in key areas of the economy to support demand and employment in the short-term, and to provide the basis for sustainable, export-led jobs and growth for the next generation. Streamlined and restructured semi-States will make significant additional investments over the next four years in 'next generation' infrastructures in the energy, broadband, forestry and water sectors.

In relation to the commercial semi State companies, NewERA will have the following functions:

- To carry out the corporate governance function, from a shareholder perspective, of ESB, Bord Gáis, EirGrid, Bord na Mona, and Coillte, reporting to the relevant Ministers.
- To have responsibility for reviewing capital investment plans of these commercial semi State companies from a shareholder perspective.

- To identify possible synergies between investment programmes of different State companies.
- To develop and implement proposals for investment in line with NewERA Programme for Government commitments in the relevant sectors.
- To advise on, and if appropriate oversee, any restructuring of State companies, including working with the Minister for Public Expenditure and Reform on the disposal of State assets.
- NewERA will have a key role to play in advising on the appropriate valuations to be placed on any assets under consideration for disposal and on the optimal method of disposal in each case.
- Based on progress with the initial phase of its work, NewERA will consider a model(s) for a holding company structure which could own the shares in all CSS companies.

Energy Infrastructure

Energy is a key input to economic activity and the economy must have a secure and reliable source of energy:

- to ensure a fully sustainable, secure and competitive energy market underpinned by diverse energy sources, energy efficiency and robust infrastructure; and
- to help address climate change by meeting our binding obligations in the reduction of energy related greenhouse gas emissions

Investment in electricity generation infrastructure will continue to be made by the utility companies, private and State-owned, operating in the energy sector. Competitively priced energy supplies are vital for the success of Irish businesses, especially those competing in the international markets. It is important that planned investment is delivered in a manner conducive to cost competiveness and that excess capacity – which can lead to higher costs – is avoided. Essential investment in the gas and electricity transmission and distribution networks will continue by EirGrid, ESB and Bord Gais Eireann to underpin security of national energy supply. The network investment programmes are funded by the State Companies and remunerated through charges on all energy consumers. The cost effective maintenance and continued development of the national energy infrastructure networks, and the electricity transmission system in particular, is strategically vital for Foreign Direct Investment and indigenous enterprise, for the economy and domestic consumers, and for regional economic development.

The Road Network

Among the most visible and beneficial legacies of Ireland's economic expansion is the national motorway network. The opening of the final phase of the M7 Dublin to Limerick route in December 2010 brought the completion of the motorway network linking Dublin to each of the main regional centres and the Border with Northern Ireland. The effect of this investment – of the order of €6.6 billion – has been to significantly reduce journey times, accidents and vehicle maintenance costs.

The National Road Network now extends some 5,500 km, including almost 1,200 km of motorway[14] and now carries 45 percent of the country's total road traffic. The network is a crucial component of the economy's export potential and carries goods to airports and ports for onward delivery to global markets. Journey times on the key routes now stand at:

- M1 Border / Dublin: 1hour
- N8 Cork / Dublin 2 hour 30 minutes
- N4/N6 Galway / Dublin: 2 hour 10 minutes
- N7 Limerick / Dublin: 2 hour 15 minutes
- N9 Waterford / Dublin 1 hour 45 minutes

(*Approximate Journey Times from M50*)

The strong export performance in recent years is reflected in growth of traffic volumes on the Dublin Port Tunnel: up to two million commercial vehicles (HGVs and light vans) passed through the tunnel in 2010, a 10 percent increase on 2009.

The key challenge in current circumstances is to ensure adequate maintenance of the National Road Network in order to protect the value of previous investments and to target the improvement of specific road segments where there is a clear economic justification. The focus of the Exchequer funding to be made available to 2016 will be on pursuing these objectives.

In this context the National Roads Authority is seeking to progress a number of projects by Public Private Partnership (PPP). The most advanced of these are:

- N11 Arklow-Rathnew/ N7 Newlands Cross Interchange (a bundle of two projects)
- N17 Gort/Tuam

Given the scale and cost of these projects, it was never intended to fund them directly from Exchequer resources. Rather it was intended to fund them by means of a PPP using private money to build and maintain these roads, paid back over a prolonged period by the Exchequer in the form of availability payments. The private funding market is particularly

[14] National Roads Authority (2011) *Annual Report 2010 and Programme 2011*.

challenging at present and intensive efforts are continuing to access funding for these PPP projects. The Department of Transport is factoring into this investment framework sufficient funds to meet the availability payments for the N11 Arklow / N7 Newlands Cross Interchange over the medium term.

The intention is to continue to pursue the Gort-Tuam PPP with a view to the project going ahead within the framework period. Preparation works on the New Ross/Enniscorthy PPP project will be progressed. Work will also continue on the Galway City Outer By-Pass (N6) to resolve the legal issues delaying the project.

In addition to the funding provided, the NRA will also progress a limited number of improvement schemes, including the Ballaghaderreen bypass project, together with some relatively low-cost targeted improvements on the national secondary network, where road safety is an issue, and in tourist areas. These projects offer significant economic benefits and will continue to be supported in what is a far less favourable funding environment. It is not anticipated that sufficient funds will be in place to commence any other major National Road projects but it should be emphasised that these projects are deferred not cancelled.

Should investment prospects pick up over the medium-term, there are further road projects which can serve to enhance competitiveness and improve enterprise conditions and which will be progressed by the NRA in the event of additional resources becoming available.

Investment in the Regional and Local Road Network over recent years has been less extensive. While the constraints of the economy's fiscal position will not permit major investment in this infrastructure in the medium-term, the Government nonetheless plans to direct significant funding towards the maintenance and rehabilitation of regional and local roads. At present over 85 percent of investment is targeted at maintenance and rehabilitation work and this trend is expected to continue. In addition some limited investment will be directed to important strategic improvement and safety schemes on the local and regional road network.

Arising from the St Andrew's Agreement, Ireland is also committed to co-funding the construction of the A5 through Northern Ireland to Derry thus improving access to Letterkenny and North Donegal. The Government remains politically committed to this project; given the tight fiscal constraints however, roads investment will be focused on maintaining existing roads, rather than developing new routes. It is therefore not anticipated that significant resources will be available for this project over the medium-term.

Table 2 shows the planned level of investment in the road network in the coming years. While the investment figures include provision for close-out payments associated with the completion of the motorway network, the bulk of the investment will be directed to road maintenance over the period.

Table 2 National, Regional and Local Roads Exchequer Investment 2012-16

	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
National Roads	605	278	288	253	252	1,676
R&L Roads	285	250	240	240	240	1,255
Total	**890**	**528**	**528**	**493**	**492**	**2,931**

Public Transport

Public Transport is afforded high priority in the Programme for Government. This is due to the contribution that an attractive public transport system can make not only to economic renewal and to the climate change agenda but importantly also to the citizen's daily lives. Investment in public transport facilitates alternatives to car transport, helping to reduce congestion and emissions and enabling the transport sector to cater for the demands associated with longer term population and employment growth in a sustainable manner.

For the first time, a government will invest more in *new* public transport than in *new* road projects.[15] However, while the ratio between public transport and roads will favour public transport for the first time the overall quantum of investment will fall.

While recognising the impact of the current difficulties, the aim under this framework is to ensure that spending over the next five years is coherent and consistent with the various transport and planning strategies which have evolved over the past decade. The main focus is on protecting and extracting maximum value from existing assets. It is also proposed -

[15] Although over the period, there will be a higher level of expenditure in the roads programme owing to close-out payments associated with existing roads and essential maintenance spending.

where possible - to provide a platform from which to build a better, more integrated, public transport network when the economy improves. Making public transport more attractive requires on-going funding to maintain existing infrastructure safely, remove bottlenecks and pinch points, provide better passenger information and provide for limited and targeted improvements. This approach can reduce operating costs and enhance patronage and revenue.

Funding will therefore be prioritised to ensure maintenance of existing investment and to advance a small number of important projects which can add value to the existing network. For the Greater Dublin Area (GDA), the proposed long term integration agenda can be progressed to a limited extent. This will be done through commencing construction of the LUAS Broombridge (Line BXD) project during the period under consideration.

In the context of reduced resources, larger public transport projects proposed for the GDA (such as Metro North and DART Underground which were to be advanced as PPP projects, but which require very significant Exchequer contributions) cannot proceed at this time. They are being postponed for consideration in advance of the next capital programme which will be drawn up in 2015 and will cover the period from 2016 onwards. These projects are being deferred, not cancelled: they remain key elements of the overall integrated transport strategy for the GDA and will be progressed when fiscal and market conditions improve.

While there may be some criticism of the decision to defer Metro North and DART Underground, any reasonable consideration of the facts endorses the rationale for this course of action. Both projects are PPP schemes and given the multi-billion scale of private finance required it has not been possible to secure the necessary finance since the start of the economic downturn. Given current conditions prevailing on the financial markets, and taking account of Ireland's general economic circumstances, it is unlikely that private investors would be willing to commit the level of funding necessary for these major infrastructural projects for some time.

Moreover, the cost of these projects is extremely high. Metro North has been estimated to cost in excess of €3 billion and DART Underground around €2.6 billion excluding the electrification works on the Maynooth/Kildare/Northern lines and other ancillary works and rolling stock.

Focus on... LUAS Broombridge (BXD)

The LUAS BXD project involves the provision of a link between the existing LUAS Red and Green Lines and extending the network onwards through the city centre to Cabra (Broombridge) via Broadstone and Grangegorman. This will link up the two existing Luas lines and will connect to the Maynooth and Dunboyne suburban rail line. For the first time, people will be able to get on a train or tram in Leixlip and get out at Stephen's Green or Dundrum with one change. Similarly, people will be able to get from Sandyford to the O2, or CityWest to Ranelagh with just one change. It will increase the number of passenger journeys on Luas by up to 10 million and is projected to operate without requiring a subsidy.

Development of a reliable, efficient and integrated public transport network for the Greater Dublin Area is a key element to achieving a modal shift from private car thereby tackling congestion in Dublin, enhancing economic competiveness and ensuring a sustainable, attractive city for generations to come. The creation of a more integrated public transport system facilitates more concentrated and consolidated patterns of development and reduces a reliance on the private car. With the addition of recent Luas extensions to the Docklands, Cherrywood and Citywest, it becomes ever more important that the network is completed by constructing the city centre link. This will greatly increase cross-city access with Luas providing direct links between residential areas and employment, retail, leisure, medical and education facilities on both sides of the Liffey.

In addition to serving the city centre commuter market, Luas BXD will also serve the important retail market in the city centre, facilitating shopping trips for people wishing to move between the traditional city centre retail areas of Henry Street and O'Connell St north of the river to the Grafton Street area south of the river.

Overall Luas BXD will strengthen the commercial heart of the city. Investment can be attracted into the areas served by Luas BXD and new commercial and service facilities can be developed. The Line can contribute to sustaining the business and competitiveness of the capital city and provide long-term sustainable infrastructure to support the city over the long-term.

Luas BXD will be fully Exchequer funded, with the cost apportioned over a number of years. The main construction element is being targeted to start in 2015. Details will be finalised once An Bord Pleanála issues its decision on the Railway Order application made by the RPA for this project. That decision is expected shortly. The Business Case is strong and revenues are forecast to be more than sufficient to cover the additional operating costs of the link. The project is forecast to create direct and indirect employment for 800 people over the construction period. Once operational It will create approximately 60 new sustainable jobs on the extended Luas network.

Given the constraints on the capital programme, the extension of heavy rail to Navan, Luas to Lucan and Bray and Metro West will also be deferred for consideration in 2015 in advance of the next Public Capital Programme.

Funding is provided for Kishogue and Hansfield Stations and both Crusheen and Oranmore Stations on the Western Rail Corridor, the next phase of which is also deferred for consideration in 2015 in advance of the next Public Capital Programme.

Funding is also being provided for the following priority projects and programmes:

- Railway Safety and Capital Maintenance Programme;
- Replacement Public Service Obligation (PSO) buses;
- Upgrade of existing QBCs with emphasis on the Ballymun/Airport/Swords corridor;
- Removal of certain pinch points/bottlenecks including some urban rail level crossings; and
- Regional Cities Traffic Management Programme

In addition, it is worth noting that both rural transport services and the taxi services are currently being reviewed. Some limited levels of capital funding may be required in order to generate efficiencies in both the provision of these services and the regulatory systems under which they operate.

Enhancement of public transport integration and operation will be provided through the completion and operation of the Integrated Ticketing Project in the Greater Dublin Area, further expansion of Real Time Passenger Information (RTPI) and the introduction of a National Journey Planner.

Smarter Travel

Funding is provided in this Investment Framework for the development of Smarter Travel initiatives including cycle lanes and cycle ways, pedestrianisation projects, signage/information provision and traffic calming across the country together with the extension of bike sharing schemes to some of the regional cities.

The Government plans to proceed with Smarter Travel Demonstration Areas in a reduced but structured manner, identifying and supporting key components that can effect maximum module change.

Table 3	**Public Transport Investment 2012-16**					
			€ million			
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Public Transport Infrastructure - GDA	111	158	150	145	150	715
Public Transport Safety and Development	111	114	120	115	111	571
Public Transport Projects/Accessibility	16	16	15	15	15	77
Smarter Travel	17	15	11	11	11	65
Total	**256**	**304**	**296**	**289**	**287**	**1,428**

TECHNOLOGICAL INFRASTRUCTURE

According to analysis by Forfás, the key infrastructure priority for enterprise development is the timely delivery of advanced broadband services.

> The widespread availability of advanced broadband infrastructure and services is essential to realising future growth potential in existing and emerging sectors. It will also play a key role in supporting the growth of small businesses, capturing opportunities for productivity and innovation, supporting regional development, enabling greater public sector efficiency and marketing Ireland as a location for ICT-intensive FDI and R&D projects.[16]

As services industries increasingly predominate the composition of the economy[17], technological infrastructure becomes all the more important for enterprise growth. The Government is committed to overseeing the provision of high-speed broadband across the country.

Private providers are the key players in the roll-out of this infrastructure and have been investing in the region of €400 to €500 million per annum in the sector. In addition to this investment, the Government, utilising Exchequer and EU funding, has invested approximately €300 million over the last seven years in the provision of telecommunications infrastructure in cases of demonstrated market failure. The commercial semi-State sector has also contributed to the development of Ireland's telecommunications infrastructure through investment in backhaul infrastructure in

[16] Forfás (2011) *Infrastructure Priorities for Enterprise*. Submission to the Department of Public Expenditure and Reform.

[17] ESRI analysis contends that services could account for 70 percent of exports by 2025.

particular. As a consequence of the very substantial combined private and public sector investment to date, the telecommunications needs of large enterprises are largely being met. Ireland will also have universal basic broadband availability ahead of the EU target date of 2013.

The challenge now is to accelerate the delivery of high speed broadband to the regions, and in particular to SMEs. The role for the Government will continue to focus on avoiding the displacement of private sector activity, encouraging private sector investment through non-fiscal measures, and addressing particular instances of market failure. The Minister and Minister of State at the Department of Communications, Energy and Natural Resources convened the Next Generation Broadband Taskforce this year. The purpose of the taskforce is to discuss the optimal policy environment required to facilitate the provision of high-speed broadband across Ireland. The Group is high level, bringing together Ministers and CEOs of the commercial service providers. It is expected to report by year's end and aims to assist in identifying the future infrastructure gaps and how Government might work with the private sector to close these gaps.

3.3 Human Capital and Productive Sector Investment

ENTERPRISE SUPPORTS

A robust, dynamic enterprise sector is essential to ensuring Ireland's return to a sustainable growth path and to creating the resources to underpin investment. Along with supporting the productive sector by ensuring availability of enabling infrastructure, the capital programme also assists enterprise by providing direct supports to industry and building industry's capacity and capability to deliver new and innovative products and services.

Grant supports benefit the whole spectrum of the enterprise base: microenterprises are supported by the County and City Enterprise Boards; Enterprise Ireland provides assistance to Irish firms seeking to export through a suite of tailored programmes to drive innovation and exploit market opportunities; IDA attracts overseas industry and Science Foundation Ireland invests in research to aid the long-term competitiveness of the enterprise base. In 2009 and 2010, about half of IDA Ireland's new business wins were RDI based, with a value of €500 million.

This integrated package of supports has been developed over the last decade and is central to Ireland's enterprise development offering. It is a major factor in what has made Ireland an attractive location in which to do business and must be maintained to ensure an enterprise-led export recovery.

The successful attraction of foreign direct investment (FDI) was a driving element of Ireland's economic success from the late 1990s into the last decade. Support to the FDI sector is based on the value presented by Ireland including cost competitiveness, fiscal environment, quality and skills availability, corporate tax regime, modern infrastructure, ease of doing business, access to markets, high quality of living and working standards, and importantly, Ireland as a location from which to innovate and grow global business.

Developing a modern knowledge-led economy requires that creativity and innovation are centre-stage. Measures to support, apply and leverage potential in this regard are indispensable in ensuring our future prosperity. Investment through the Department of Jobs, Enterprise and Innovation has been increased to record levels over the recession. While the need to address fiscal targets will require some retrenchment in funding to research and development, supports to industry will still be maintained in excess of pre-recession levels when total capital expenditure was at its highest.

Table 4 Department of Jobs, Enterprise and Innovation Capital Investment 2007 - 2016

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
				€ million					
439	451	498	474	508	514	458	457	454	451

Agriculture, Forestry & the Marine

The agri-food, marine and forestry sector is Ireland's largest indigenous sector and makes a major contribution to economic and social development, particularly in rural Ireland. Some 137,000 people are employed in the sector which has an annual output of over €22 billion and exports valued at €8 billion. Early estimates for exports for 2011 suggest a figure of approximately €9 billion. The overall contribution to the economy is illustrated by the fact that latest data shows the sector accounting for 6.2 percent of gross value-added, 7.5 percent of national employment and 9.8 percent of exports. While there has been a substantial programme of capital expenditure in recent years, particularly in on-farm investment, the potential of the sector to develop and contribute to economic recovery cannot be realised without further significant capital investment.

Considerable scope for expansion and growth in the agriculture, food, marine and forestry sector is identified in the Food Harvest 2020 report, which was published in July 2010. The report sets out a strategy for smart green growth that maps the future direction of the sector for the next decade and emphasises the need to enhance competitiveness, increase sustainability and improve marketing strategies in order to deliver on the future potential. The growth targets for 2020 include increasing the value of primary output by €1.5 billion, and increasing value added and exports by around 40 percent. The achievement of these targets will require considerable improvements in productivity and competitiveness, the continuation of environmentally sustainable practices at farm level, focused R&D and improved added value in the processing industry. Focused capital investment in these areas through the capital grants schemes operated by the Department of Agriculture, Food and the Marine will facilitate progress towards achieving the Food Harvest 2020 goals.

The capital programme of the Department will continue to provide for investment in the food industry in marketing and processing. At farm level, the emphasis will be on on-farm investment to improve productivity and sustainability. The Government is also committed, in the Programme for Government, to an ambitious afforestation programme which will deliver significant ongoing benefits in terms of job maintenance and creation, and in mitigating climate change through carbon sequestration. In the marine sector, investment will continue in processing, aquaculture and in the development of fishing harbours.

In the years to 2016, the Government will invest €860m in a range of supports to the agriculture, food, and marine sectors.

Table 5 Agriculture, Food and the Marine Capital Investment 2012-16

	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Programme total	168	168	168	168	168	840

Tourism Investment

The tourism and hospitality industry continues to be a vital indigenous industry employing close to 180,000 people.[18] It brings revenues into every part of the country and provides job opportunities for people across a range of skill levels. The vast majority of tourism and leisure businesses are Irish-owned and the profits stay in Ireland. The estimate for

[18] Fáilte Ireland (2011) *2010 Annual Report*

expenditure in 2010 by overseas visitors is approximately €3.4 billion. In addition, spending on domestic tourism was €1.3 billion, making the total spend on tourism in the national economy in the region of €4.7 billion.[19]

The Tourism Capital Investment Programme operated by Fáilte Ireland has been crucial in developing attractions, activities and tourism infrastructure to meet the requirements of today's visitor. In order to remain competitive, increase market share and continue to attract visitors from overseas, the Government will continue to support capital investment in tourism, although the scale of investment will not be as great as in recent years. Funding will be focused on meeting existing commitments under the Programme, and sufficient funding is provided to honour all of these commitments including major projects like the Book of Kells Visitor Centre in Trinity College, the Viking Triangle in Waterford, The Great Western Greenway in Mayo, King John's Castle and the Limerick Riverside and Killarney House and Derrynane House in Kerry.

When it comes to future commitments, priority will be given to relatively low cost projects to enhance or renew existing attractions and provide new ones. In particular there will be a greater focus on activities such as recreational walking and cycling.

In terms of iconic projects, support will be given to a Diaspora Centre or Diaspora Museum should a suitable project and partner be available.

Table 6 Tourism Capital Investment 2012-16

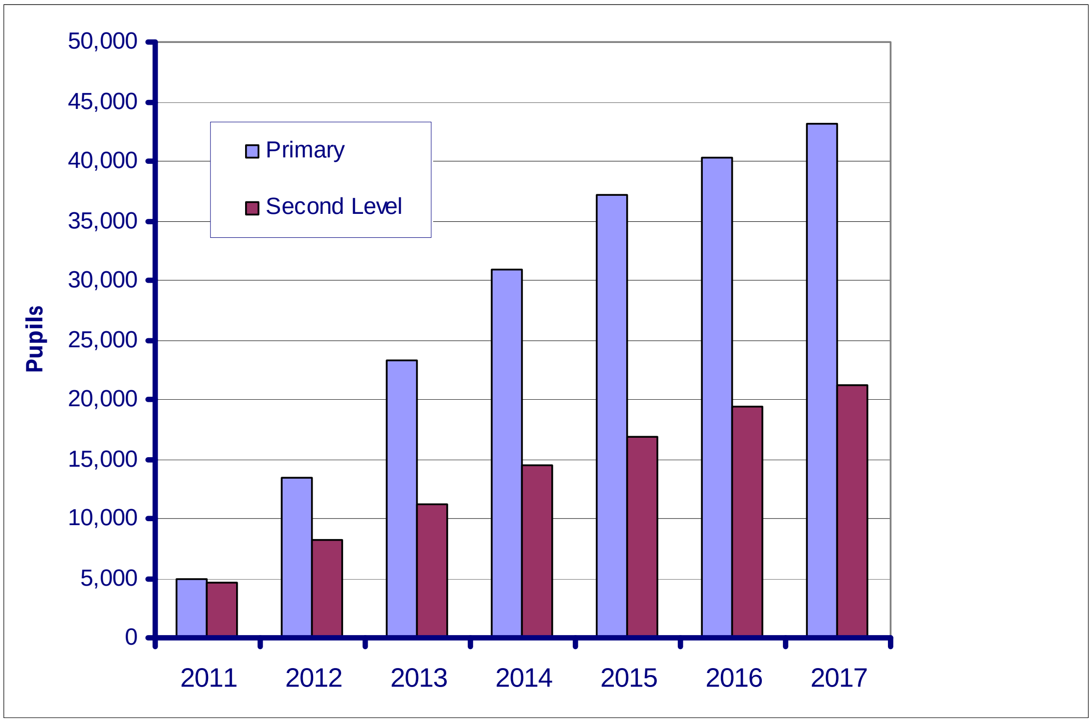
	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Programme total	22	20	17	10	12	81

INVESTMENT IN SCHOOLS

There are unprecedented demographic demands for school places. The Government will invest to expand our stock of schools and thus ensure sufficient capacity to cater for demographic demand. Demographics will be the primary determinant of capacity needs over the medium-term and will lead to an additional 70,000 pupils in schools by the conclusion of this investment framework. The trend is illustrated below.

[19] Fáilte Ireland *Tourism Facts 2010*

Figure 2 Projected Cumulative Increases in Pupil Numbers



Source: Department of Education and Skills

There will be a focus on major school projects and smaller projects devolved to schools to meet these demographic demands. In order to cater for the increased numbers of pupils, over 20 new schools will have to be established at primary level and another 20 new schools will have to be established at second level between now and 2017. In addition to these, over 180 existing primary schools and second-level schools in developing areas will need major extensions or new buildings between now and 2017 to cater for the increased demand for pupil places and there will also be a need to construct a large number of extensions outside of these areas. Given the number of the projects to be delivered, the Department of Education and Skills is putting in place enhanced and diverse delivery methods. The third bundle of PPP schools is planned to be completed in 2013 and a further bundle is being developed for completion in 2016.

In relation to the higher education sector, projects with existing contractual commitments in place will be completed. These include the UCD Science Centre, the University of Limerick Medical School, NUI Maynooth's library project and the new Campus Development at St. Patrick's College, Drumcondra. Projects where contractual commitments have not yet been entered into will not be advanced and the higher education PPP bundles will not proceed. In relation to DIT's proposed Grangegorman campus development, infrastructure investment will be postponed for the lifetime of the investment framework, although planning will take place towards an initial PPP project, for possible completion in 2017.

Table 7 Education Capital Investment 2012-16

	2012	*2013*	*2014*	*2015*	*2016*	*Total*
			€ million			
Schools	364.5	364	464	471	411	2074.5
Higher Education	60	48.5	8.5	1.5	1.5	120
Other investment	5.5	2.5	2.5	2.5	2.5	15.5
Total	**430**	**415**	**475**	**475**	**415**	**2,210**

3.4 Environmental Investment

Water Services Investment

The Department of the Environment, Community and Local Government is leading a study on the establishment of a national water company. As set out in the Programme for Government there is a commitment to the establishment of a new company, Irish Water, taking investment and maintenance out of the hands of local authorities. The study will identify the optimum role and functions of the proposed company, and the most effective assignment of functions and structural arrangements for delivery of high quality, competitively priced, water services to customers (domestic and non-domestic), and for infrastructure provision.

Focus on... Irish Water

The Programme for Government contains plans to establish Irish Water, a new State company that will take over the water investment maintenance programmes of the existing 34 local authorities.
The Government is conducting an assessment of the transfer of responsibility for water services provision from local authorities to a water utility, including preparing proposals for implementation. This assessment is considering the optimum role and functions of the proposed water company and the most effective assignment of functions and structural arrangements for delivering high quality competitively priced water services to customers – both domestic and non-domestic - and for infrastructure provision.

Decisions on these issues will be taken later in 2011.

Alongside these structural developments, water services investment will be a key focus of the Public Capital Programme. This will help ensure adequate capacity for economic development and meet pressing environmental targets. Table 8 below sets out public investment in water services in the years to 2016

Table 8 Water Services Programme Investment 2012-16

	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Water Services Investment	331	294	266	266	266	1,423
Rural Water Programme	40	35	30	30	30	165
Total	**371**	**329**	**296**	**296**	**296**	**1,588**

The majority of investment will be channeled through the Water Services Investment Programme, and will be targeted at ensuring:

- A marked reduction in levels of leakage on public water mains through sustained investment in rehabilitation.
- Further improvements in statutory compliance in relation to drinking water standards and improved capacity and security of supply, with upgraded and new infrastructure in Cork City, Leixlip, Waterville, Lough Mask in Co. Mayo, Tullamore and Costello in Co. Galway for example and the planning of a new long term source of water supply for the Greater Dublin Area.
- Improvements in statutory compliance in relation to wastewater discharges, priority schemes in River Basin Management Plans and building treatment capacity to meet future demand, with upgraded infrastructure in treatment plants in many locations including two of the larger plants in Co. Kildare (Leixlip and Osberstown)

and new infrastructure for groups of towns and villages in counties Waterford, Laois and Donegal.

- The rollout and planning of major wastewater infrastructure under the Greater Dublin Strategic Drainage Strategy, including upgrades of Ringsend treatment plant will also be advanced as will Galway Main Drainage (East Galway treatment plant).

Investment will also continue to be provided to support capital investment in the group water sector and smaller public water and wastewater infrastructure under the Rural Water Programme.

In the solid waste sector, the bulk of the investment required in new waste treatment infrastructure is to be provided from private sources, recovered through user charges in line with the Polluter Pays Principle.

Energy Efficiency Investment

In recent years the State has spent heavily to incentivise households and businesses to enhance energy efficiency. This support has generally taken the form of direct grant payments and, since 2008, total expenditure (public and private) has exceeded €300 million.

Investment in this area brings very considerable benefits:

- Demonstrable energy savings – the 2011 programme is targeted to achieve energy savings of 500 GWh, worth €400 million to the economy
- Employment intensive works - the Sustainable Energy Authority anticipates close to 6,000 jobs supported from this spending
- Leveraging of private sector investment - for every €1 the State invests, the private sector invests €2

As previously signalled, changes to the existing funding model are required to ensure the sustainability of the programme into the future. Reliance on State funding is not a sustainable model and while Government supports have helped develop the market and promote awareness of the benefits of action, the market must be weaned off Exchequer funding. The introduction of energy saving obligations on energy suppliers in 2011 will provide a sound basis on which to move to new models of realising energy savings. While the Government will continue to provide a significant level of support in 2012 and 2013 it is committed to a transition to a non-Exchequer based funding model no later than the start of 2014.

Flood Defence

Continued funding of €45 million per annum will be made available for flood risk management and mitigation. This represents a sustained capital programme to address the existing risk to homes, businesses and infrastructure. Areas where major works schemes will continue include Clonmel, Mallow, Fermoy, Ennis, Waterford and Carlow and a minor works programme will fund smaller schemes delivered by the Local Authorities.

Other areas at various stages of design will be progressed. A Preliminary Flood Risk Assessment for the country (as required by the EU Floods Directive) will inform the prioritising of areas for more detailed analysis in the individual catchment areas under the Catchment Flood Risk Assessment and Management (CFRAM) programme.

3.5 Social Infrastructure

Health

The driving force for capital investment in health and personal social care facilities is to support the provision of the best possible service to patients. Suitable and appropriate facilities are required to provide safe and cost-effective care. In addition, a well designed and well maintained health estate impacts positively on patient recovery rates, and can lead to reduced pain in patients, decreased infection rates and greater patient satisfaction.

Key objectives of capital investment in health are to ensure that the right facilities are provided in a timely manner, that they are suitably located, efficiently designed and appropriately procured, to serve defined and prioritised needs. A central aim is to ensure that high-quality and cost effective care is delivered in the most appropriate settings.

Health infrastructure investment also has a very positive employment creation/support impact and is particularly beneficial for local employment because of the presence which the health services have throughout the country.

In line with the priority afforded to health capital investment in the Programme for Government, this review maintains existing planned levels of health capital spending. Accordingly close to €2 billion will be invested in the period 2012-2016.

This funding, along with additional investment from other potential sources, will support three high priority national projects, as follows:

- the National Children's Hospital, and the associated ambulatory & urgent care centre in Tallaght, confirming the Government's commitment to delivering quality services in modern facilities for the children of Ireland
- the replacement of the Central Mental Hospital, replacing the existing hospital, which dates from 1850, with an appropriate modern facility for treating and caring for patients with mental illness
- the National Project for Radiation Oncology, recognising the demonstrated need for extra radiotherapy capacity and the obvious impact of this treatment on patient mortality and morbidity

Focus on… the National Children's Hospital

The new Children's Hospital of Ireland (CHoI) will be the core component of an integrated healthcare system and will amalgamate acute paediatric services in Dublin into a single hospital, located alongside a leading adult academic hospital. The new children's hospital will be a central component of the new National Model of Care for Paediatric Healthcare Services in Ireland.

It is widely accepted that the main children's hospitals (Crumlin and Temple St) are no longer adequate and are in poor structural condition. An independent review of the project to build the new Children's Hospital of Ireland on the site of the new Mater Campus, stated that 'Our Lady's Hospital for Sick Children, Crumlin, and the Children's University Hospital, Temple Street provide excellent care but many of their facilities fall well below today's standards for the care of children and their families.'[20]

The Independent Review team unanimously and unequivocally recommended the immediate implementation of plans to consolidate the current Dublin inpatient acute care paediatric unit into a single National Paediatric Hospital located on the Mater site.

It is Government policy that paediatric services at these two hospitals should be consolidated with Tallaght children's hospital onto the site at Eccles St beside the Mater. This policy is supported by a number of reports which clearly indicate the ongoing clinical risk deriving from the stand-alone nature of these hospitals in addition to their physical infrastructure. The project also provides for the development of an Ambulatory & Urgent Care Centre in Tallaght which will provide out-patient, day-care and emergency care services.

[20] Department of Health (2011) *National Paediatric Hospital Independent Review*

Funding will be allocated across a number of sub-programmes - primary care, mental health, older people, disability and acute hospitals – in accordance with the commitment in the Programme for Government to prioritise primary care centres, step down and long-term facilities and community care facilities such as day centres for older people. The detailed distribution of the funding across the different sub-programmes will be set out in the HSE Capital Plan for 2012-2016.

The funding for primary care will ensure that, in addition to private sector investment, primary care centres can also be provided by the State through a combination of converting existing HSE-owned premises, acquisition of premises and greenfield construction. State funding will be targeted at disadvantaged areas with the greatest health needs. The development of primary care centres, through a combination of public and private investment, will facilitate the delivery of multi-disciplinary primary care and represents a tangible re-focussing of the health service to deliver care in the most appropriate and lowest cost setting, thereby reducing pressures on local acute hospitals. This reflects the objective across the health service of primary care meeting 90-95 percent of health need and enables more intensive care in the community of people with chronic diseases.

Further features of the investment programme include:

- ☐ Funding for mental health will advance the delivery of the remaining infrastructure outlined in *Vision for Change*.
- ☐ Funding for older people will support access to intermediate step-down and rehabilitation care so older people have a better chance of returning home (with home/community support services if necessary) instead of spending an unnecessarily long time in hospital and then moving into long-term nursing home care.
- ☐ Funding for disability services will support the provision of appropriate accommodation for those who are currently resident in old psychiatric hospitals and other inappropriate accommodation.
- ☐ Some funding will be used to support the clinical programmes now being implemented across the health services and the transfer of appropriate services from regional hospitals into smaller local hospitals.
- ☐ Substantial funding will be allocated for the maintenance and refurbishment of existing facilities, in order to comply with regulatory requirements, protect and upgrade existing building fabric, plant and equipment, and improve energy and waste management.

At least €200 million will be used to support a major upgrade in ICT capabilities for the health system. It is universally accepted that ICT is a key enabler to transforming service provision and the ambitious Government reform programme for health (including abolition of the HSE, a major strengthening and expansion of primary care, the introduction of a "money follows the patient" system of funding and Universal Health Insurance) will have to be underpinned by effective information and ICT.

Finally, approximately €80 million will be allocated to the Department, principally to support the development of a new clinical research facility at UCHG and a replacement blood transfusion facility in Cork, and to fund health research, through the Health Research Board.

There will also be capital investment through the Department of Children and Youth Affairs. It is anticipated that this will consist of over €6 million for the National Childcare Investment Programme and €1.5 million for youth projects.

Housing

The Government's vision for the future of the housing sector in Ireland is based on choice, fairness, equity across all tenures and on delivering quality outcomes for the resources invested. The overall strategic objective will be to enable households to access good quality housing appropriate to their circumstances and in their particular community of choice. There will be restructuring of the social housing investment programme to allow for the delivery of new social housing through more flexible funding models. The social housing leasing initiative and the Rental Accommodation Scheme (RAS) and the value for money which is available for these in the present housing market, will each contribute as long-term social housing supports.

The capital budget for the provision of the social housing programme will be focused on the most acute needs with particular emphasis placed on:

- ☐ delivering more and better outcomes for vulnerable, disadvantaged and special needs households;
- ☐ improving the overall performance of the existing social housing stock (in terms of energy efficiency, prompt turnaround of voids/vacant stock etc.); and
- ☐ ensuring that the significant levels of Exchequer funds invested across the various housing programmes are targeted in a way that maximises the potential

contribution to economic recovery by means of labour intensity, supporting jobs and maintaining employment.

The medium-term allocation will be prioritised to ensure that funding will be available for:

- the Limerick Regeneration Programme and contractual commitments and to the greatest extent possible, for other regeneration and remedial projects;
- fulfillment of Part V commitments as they arise but with very limited traditional local authority housing output;
- an allocation from the voluntary housing budget to facilitate larger approved voluntary housing bodies leveraging private sector finance for the delivery of projects including under the mortgage to rent scheme;
- grant funding to cover the capital cost of some small scale special needs projects delivered by voluntary housing bodies;
- continued funding of energy efficiency retrofitting and private housing grants at a lower level;
- some funding for Traveller accommodation; and
- payments under the Land Aggregation Scheme to reduce the loan exposure of local authorities.

Table 9 Housing Capital Programme Investment 2012-16

			€ million			
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Social Housing	189	125	92	92	92	590
Local Authority Regeneration & Remedial Works	145	122	90	90	90	537
Private Housing Sector Supports	56	58	58	58	58	288
Total	**390**	**305**	**240**	**240**	**240**	**1,415**

Investment in Sport

The country's stock of major sporting infrastructure has been transformed over the past decade through continued Government investment in sport. The redevelopment of Croke Park, and the Aviva Stadium at Lansdowne Road as world class stadia and the range of improvements at regional level such as Thomond Park and Tallaght Stadium have resulted in a very significant level of high quality sporting infrastructure. The level of improvement has been such that data cited by the World Economic Forum show Ireland as ranking first amongst 139 counties in terms of sports stadia capacity.[21]

The only remaining piece of major sporting infrastructure to be completed is the National Sports Campus in Blanchardstown (Abbotstown). Recognising the difficult economic situation the Government is not in a position to allocate significant Exchequer funds to this project at this time but has committed to continuing this development on an incremental basis. This will involve the construction of Sports HQ to provide office accommodation for National Governing Bodies, the transfer of the Irish Sports Council from its offices in Blanchardstown to Abbotstown House and the provision of GAA, soccer, rugby and hockey training facilities in co-operation with the GAA, IRFU, FAI and IHA over time.

The Department of Transport, Tourism and Sport will launch two sports capital programmes over the period of this plan which will further enhance local sporting and recreational facilities and support direct employment on a nationwide basis. The funding available will be focused on local facilities and low-cost improvements, renovations, new facilities and equipment.

In addition it is intended that the remaining projects in the Local Authority Swimming Pool Programme will be completed. The level of funding involved is set out below:

Table 10 Sports Capital Programme Investment 2012-16

			€ million			
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Total investment	32	21	25	18	16	113

These programmes, focusing at a grass roots level, can bring social and health benefits nationwide and can also provide local employment during the delivery and operational phases.

JUSTICE CAPITAL

There has been a consistent increase in the total prisoner population in Ireland over recent years, with large increases in the numbers of sentenced prisoners and a trend towards longer sentences. As set out in the Programme for Government, the Government will promote a movement away from prison sentences and towards less costly non-custodial

[21] World Economic Forum (2011) *The Travel and Tourism Competitiveness Report 2011*

options for non-violent and less serious offenders. Alongside this, the budget available will be utilised to best effect to ease the current overcrowding pressures in the prisons and to undertake certain other priority projects such as the continued expansion of the in-cell sanitation programme.

It is unlikely, in the context of the constrained public finances, that it will be possible to proceed with major new works such as the development of Thornton Hall in the short-term. There will be limited capacity from the budget available to provide some additional spaces at existing Prison locations and strategic considerations will need to be taken into account in prioritising projects of this nature.

The allocation to the Courts Service will largely be accounted for by existing contractual commitments, lease payments and the repayments on a loan taken out by Cork County Council for the redevelopment of Washington Street Courthouse. It is unlikely given the commitments in question and the reduced budgets available that significant new development work can be undertaken over the period.

The remaining capital budget will be allocated to important information technology programmes across the Garda Síochána, Courts Service, Property Registration Authority and other areas.

Table 11 Justice Capital Programme Investment 2012-16

	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Garda IT and Communications	20.4	20.4	20.4	20.4	20.4	102.0
Prison Service Building Programme	24.1	24.1	28.1	28.1	28.1	132.5
Courts Service IT	3.8	3.8	3.8	3.8	3.8	19.0
Courthouse Capital Programme	3.9	3.9	3.9	3.9	3.9	19.5
Justice Vote Capital Programme	3.2	3.2	3.2	3.2	3.2	16.0
Property Registration Authority	0.6	0.6	0.6	0.6	0.6	3.0
Total	56	56	60	60	60	292

Arts Heritage and Gaeltacht

Capital expenditure in this area will focus in particular on supporting jobs in the film & TV sector and in the Gaeltacht. It will also seek to target investment in priority areas in the cultural and heritage sectors that can support cultural tourism as one of the most important elements of Ireland's tourism product. Other investment will help to ensure continued implementation of EU Directives and support waterways development in the context of the implementation of the Good Friday/St Andrew's Agreements.

Table 12 Arts, Heritage and Gaeltacht Programme Investment 2012-16

	€ million					
	2012	*2013*	*2014*	*2015*	*2016*	*Total*
Total investment	44	38	36	36	36	182

4 Exploring Funding Options

This report deals primarily with Exchequer capital funding. For the past decade, Exchequer capital investment has been supplemented by private funding for Public Private Partnerships projects (PPPs). Over the medium-term, it will be necessary to fund infrastructure investment from alternative sources where available. Potential funding channels will again encompass PPPs and may also include the Strategic Investment Fund, and pension funds. Alternative funding models for energy sustainability will also be found, in accordance with the Programme for Government.

4.1 Public-Private Partnerships and Pension Fund Investment

The PPP model has been used to deliver a major roads programme, schools and other education facilities and accommodation projects, Convention Centre Dublin, and the Criminal Courts Complex.

PPPs will continue to have a role to play in the delivery of key social infrastructure projects to meet remaining deficits in particular additional Schools Bundles and projects in the Health Sector. The private funding market has, however, been particularly challenging for the past number of years. Nonetheless, for those sectors where there are clear and pressing infrastructure requirements and where the PPP model can offer value for money, the Department of Public Expenditure and Reform, in consultation with the NDFA (as statutory financial adviser on all projects), will continue to work with Government Departments and agencies and other relevant stakeholders to help access private funding. This includes active engagement with the European Investment Bank (EIB), which has been a valuable supporter of our PPP roads programme in particular. The EIB has continued to provide support for the most recent PPPs in the schools and transport sectors. In addition, the EIB and the Council of Europe Bank (CEB) have indicated that they would be willing to provide funding for Exchequer funded projects.

There has been ongoing engagement with potential private sector investors – including pension funds - during 2011 and the Department of Public Expenditure & Reform will now step up efforts in this regard.

4.2 Strategic Investment Fund

Through NewERA and the Strategic Investment Fund (SIF), resources will be maximised in order to stimulate growth in the Irish economy. The Strategic Investment Fund was announced in September 2011 and will be the forerunner of the Strategic Investment Bank. Following appropriate legislative changes regarding the National Pension Reserve Fund's investment policy, the Fund will channel resources from the NPRF towards productive investment in the Irish economy. As well as money from the NPRF, the Strategic Investment Fund will seek matching commercial investment from private investors, and target investment in areas of strategic significance to the future of the Irish economy.

The SIF therefore offers considerable opportunity to supplement infrastructure and investment delivered through Exchequer funding and other sources.

4.3 Maximising the Value of new National Lottery Licence

The existing National Lottery licence is due to expire at end-December 2011 and the State is actively looking at how best it can maximise its return on a new licence for the benefit of the people. At present, each year around one-third of National Lottery revenues are allocated for Good Causes. Under existing arrangements the operator of the licence, currently An Post National Lottery Company, receives a management fee that is approximately €2.8 million per annum.

There is significant potential for the next licence to operate on somewhat different terms. These could include

- a longer term licence , say 25 years, instead of 7 or 10 years;
- encouraging greater commercial interest in acquiring the licence by allowing a modest annual profit line for the operator; and
- having the winner of the new licence make an upfront payment to the State.

While the new licence might involve a profit line for an operator (in place of the existing management fee) the arrangement can still involve maintaining the significant support for Good Causes. This might involve

- modestly reducing the Prize Fund, but still keeping it at about half of lottery turnover; and
- possibly easing restrictions on online lottery sales which would enhance turnover and reduce costs.

The introduction of a profit line, rather than a simple management fee, will have the effect of placing a value on the new licence for which an upfront payment can be obtained.

The expiry of the present licence presents an opportunity for the State to review the licence structure and make sure it responds to our present and future needs. This could be achieved through acquiring a significant upfront fee or payment for the new licence, while retaining a condition for significant annual revenues to continue to be allocated towards Good Causes.

It is the Government's desire to use the upfront payment to fund the National Children's Hospital. Using the proceeds for this project allows scarce Exchequer money to be allocated to other areas such as primary health care centres and providing school places for our growing population through building new schools or renovating existing ones.

The benefits of this approach include

- putting in place alternative funding that will provide a National Children's Hospital that will improve the care and facilities available for sick children;
- providing much needed employment during the construction phase;
- reducing fiscal pressures elsewhere given the tight Budgetary constraint; and
- maintaining the integrity and ethos of the National Lottery by ensuring an ongoing significant annual revenue stream for Good Causes.

4.4 Alternative Models to Fund Energy Sustainability

Incentivising energy saving measures in the public and private sectors of the economy has traditionally relied on providing capital supports. Given the current constraints and fiscal pressures, alternative means of realising energy savings are needed. The introduction of energy saving obligations on energy suppliers in 2011, which meets our EU commitments and represents the first year of an initial three-year cycle, will provide a sound basis on which to move to new models of realizing energy savings. The Government is committed to a transition to a non-Exchequer based funding model by the start of 2014.

The development of a national Pay-As-You-Save (PAYS) scheme, which is already well advanced, will outline a proposed framework approach to a more market-orientated method of achieving energy efficiencies. The development of an Energy Services Company (ESCo) model which uses capital provided by the private sector to implement energy saving measures, which are then repaid through energy savings represents a further opportunity. This will assist a fledgling sector to develop, while facilitating the public sector to reduce its energy consumption and significant spend in this area.

The Minister for Communications, Energy and Natural Resources will assess the feasibility of an appropriate PAYS framework for Ireland and measures necessary to stimulate the development of a sustainable ESCo market and bring forward proposals.

Exchequer Capital Investment Framework, 2012 to 2016						
Ministerial Vote Group	2012	2013	2014	2015	2016	Total
	€ million					
Agriculture, Food & the Marine	168	168	168	168	168	840
Arts, Heritage & Gaeltacht Affairs	44	38	36	36	36	190
Children and Youth Affairs	8	8	8	8	8	40
Communications, Energy & Natural Resources	104	85	80	79	77	425
Defence	9	9	8	8	8	42
Education & Skills	430	415	475	475	415	2,210
Jobs, Enterprise & Innovation	514	458	457	454	451	2,334
Environment, Community & Local Government	861	726	575	574	574	3,310
Finance	5	5	5	5	5	25
Foreign Affairs & Trade	4	4	2	2	2	14
Health	390	390	390	390	390	1,950
Justice Group	56	56	60	60	60	292
Public Expenditure & Reform [Less OPW]	0.5	0.5	0.5	0.5	0.5	2.5
OPW	100	100	100	100	100	500
Social Protection	10.5	10.5	9.5	9	7	46.5
Transport, Tourism & Sport	1,231	900	879	818	818	4,646
Unallocated Reserve				66.5	133.5	200
Total	**3,935**	**3,373**	**3,253**	**3,253**	**3,253**	**17,067**
Consolidation	*755*	*562*	*120*	-	-	

Appendix: List of Organisations Consulted

As noted, the review process benefited from consultations with a number of experts and relevant organisations. Along with each Government Department, the following bodies and individuals were invited to make submissions to the review:

- Construction Industry Federation
- Edgar Morgenroth (Economic and Social Research Institute)
- Forfás
- The Irish Academy of Engineering
- Irish Business and Employers Confederation
- Irish Congress of Trade Unions