

Building on Recovery: Infrastructure and Capital Investment 2016-2021

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Executive Summary

This Capital Plan presents the Government's new €42 billion framework for infrastructure investment in Ireland over the period 2016 to 2021. The Plan is fiscally sound and prioritises spending on those areas of greatest need as the economy continues its strong recovery. The considerable improvement in the public finances has allowed the Government to increase the level of expenditure on capital infrastructure gradually over the course the next six years, in a way that is sustainable and long term in its design and focus. The Capital Plan combines direct investment by the Exchequer of €27 billion, a third phase of PPP investments of about €500 million and State-owned sector investment of around €14½ billion. In total, this State-backed investment package represents over 3½ percent of GNP each year between 2016 and 2021, and it will support more than 45,000 construction-related jobs.

High-quality infrastructure is an important element of a modern society and economy. It strengthens economic growth through enhancing efficiency, productivity and competitiveness. It also underpins social cohesion through providing vital facilities for people in the form of schools, public transport, health care and housing. This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all. It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained.

The €27 billion Exchequer component of the Capital Plan, supplemented by a new €500 million phase of the PPP programme, is primarily targeted at addressing priority needs in transport, education, housing and health care. Investments will be made in public transport, including commencement of a metro project in Dublin, new and upgraded schools, Primary and Continuing Care health facilities, and new social housing will be delivered. Investments will also be made to mitigate risks from flooding. There will also be continued large investment in job creation and export rich enterprises such as manufacturing, services, agriculture and tourism.

The €14½ billion non-Exchequer component of the Capital Plan will be delivered by the State companies, which include ESB, Irish Water, and Ervia – formerly Bord Gáis Éireann. These investments will primarily be targeted at energy infrastructure development, including renewable energy and smart metering, and on the enhancement of water and wastewater infrastructure.

The scale and profile of the Exchequer component of the Capital Plan has been developed with reference to the Government's present medium term economic growth forecasts and is fully consistent with Ireland's fiscal targets over the coming years. As is normal in a programme of this length, there will be a Mid-Term Review, which will take stock of progress to date and provide the Government with an opportunity to reaffirm priority projects. This Review will also provide the Government with an opportunity to consider the scope for increased levels of investment, should Ireland's economic growth and fiscal progress exceed the present forecasts and make this possible.

FIGURE 1: Exchequer Capital Envelope 2016 to 2021



1. Introduction

This report presents a new, €27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland. With the economy recovering and against the backdrop of jobs growth and strengthening public finances, the Government is revising upwards its capital expenditure commitments for the remainder of the decade. As presented, the overall Exchequer package is fiscally sound and is in line with the national and EU level budgetary rules that are designed to safeguard the public finances and avert a repeat of the crisis from which Ireland is now strongly emerging. In due course, there will be a Mid-Term Review of the Capital Plan, which will take stock of progress and provide the Government with an opportunity to reaffirm priority projects. The Mid-Term Review will consider the scope for increased levels of investment, should it be clear at that stage that the economy is exceeding the growth assumptions informing the Capital Plan's allocations.

Building on Recovery

In 2015, we can say with confidence that the economy has emerged from a difficult period and is forecast to achieve healthy, sustainable growth rates over the medium-term. Gross Domestic Product (GDP), having outpaced all other European economies with a real growth rate of 5.2 percent last year, is now set to grow faster this year and will remain robust over the coming years.

The job rich nature of Ireland's economic recovery is in no small part due to the priority given by the Government to enabling unemployed people to return to work through the implementation of demand- and supply-side reforms included in the various *Action Plan for Jobs* and *Pathways to Work*.¹ The unemployment rate has been reduced from the peak of over 15 percent in 2012 to below 10 percent already this year. Over 130,000 jobs have been created during this period, with over

40 percent of these being created during the past 12 months alone. Cost-competitiveness has also recovered, as evidenced by Ireland's export performance and employment in the Foreign Direct Investment (FDI) sector, both of which are at record levels, and economic expansion continues to broaden out into other sectors too. While the initial stages of Ireland's economic recovery were defined by a return to an export-led growth model, more recent data points to recovery in domestic demand which is now making a positive contribution to economic growth through private consumption and a significant pick-up in investment.

The economic and fiscal context underpinning this Capital Plan, therefore, is much different to that which shaped its predecessor, *Infrastructure and Capital Investment 2012-16: Medium Term Exchequer Framework*.² This new Capital Plan

¹ Department of Jobs, Enterprise and Innovation (2012-2015) *Action Plan for Jobs* <https://www.djei.ie/en/What-We-Do/Jobs-Workplace-and-Skills/Action-Plan-for-Jobs/>

Department of Social Protection (2012-2015) *Pathways to Work* <http://www.welfare.ie/en/downloads/pathways-to-work-2015.pdf>

² Department of Public Expenditure & Reform (2011) *Infrastructure and Capital Investment 2012-16: Medium Term Exchequer Framework* <http://www.per.gov.ie/wp-content/uploads/Infrastructure-and-Capital-Investment-2012-2016.pdf>

marks a step change in the Government's capital investment policy: the value of annual investments will increase year to year over the period of the Capital Plan, setting a course for a return to the normal, long run capital investment levels required to meet social needs and sustain a modern, growing open economy. The difficult, but ultimately successful, fiscal and expenditure policy measures applied over the last number of years have now made additional spending possible and provided an opportunity for Government to invest more in the economy and public services.

Budget Management Framework

Ireland's national budgetary process, through the adoption of multi-annual budgeting and other reforms, now has an intensified focus on ensuring that the level and composition of public expenditure is sustainable and effective. Both our national and European fiscal rules are designed to ensure that growth in public expenditure reflects the underlying strength and output capacity of the economy, thus enabling the public finances to progress towards a structurally-balanced budget over the medium term.

The Capital Plan sets out the framework and broad direction for investment priorities and provides Exchequer allocations to Departments. Each Government Department must ensure that individual projects and investment proposals are subject to all of the relevant appraisal processes and value for money tests before Exchequer resources are finally committed. Departments are also responsible for ensuring projects meet with appropriate regulatory requirements including

those related to planning law and environmental impact assessments.³ The reformed budgetary framework includes a new Public Spending Code, which presents a consolidated and refreshed set of standards for appraising projects and assessing value for money. In addition, all capital investment projects and programmes costing more than €100 million will be subject to a further level of scrutiny, requiring specific Government approval before final contracts are agreed.

Headline Investment Levels

This report is the outcome of the Government's deliberations on the allocation of Exchequer resources for capital investment. The Government's decision was informed by a review process led by the Department of Public Expenditure and Reform that included analysis undertaken by each Government Department, stakeholder consultation and a review of previous investments. Overall, the Capital Plan sets out the Government's commitment to Exchequer investment of €27 billion over the six-year period 2016-2021. The Plan also announces the development of a new 3rd Phase of the Government's PPP programme with about €500 million of PPP projects. In addition, over the period of the Capital Plan, the wider State sector plans to invest €14½ billion in capital projects. This will principally be undertaken by the commercial State-owned companies. These will lead to about €42 billion of State n-backed investment in capital projects. Investment by the commercial State companies will be underpinned by funding from the Ireland Strategic Investment Fund, the National Asset Management Agency and other sources.

³ It should be noted that this Capital Plan is a high level financial and budgetary framework. It is not part of the physical planning process. While projects funded under the Capital Plan will be subject to planning law and some may require Strategic Environmental Assessment, such requirements do not arise in relation to the Capital Plan itself.

Figure 2 illustrates the overall sectoral share of the €27 billion Exchequer capital allocations over the six years of the Capital Plan.

FIGURE 2: Sectoral Share of Exchequer Capital Envelope, 2016-2021

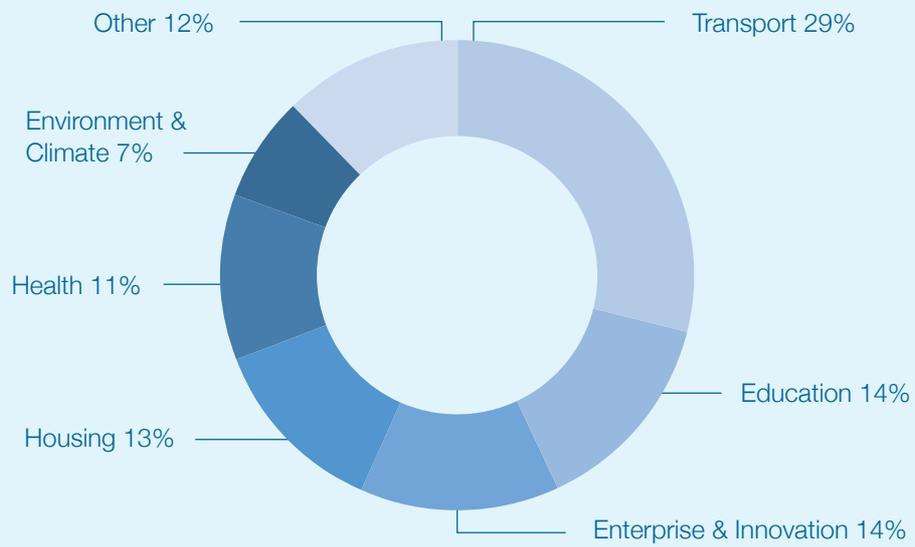
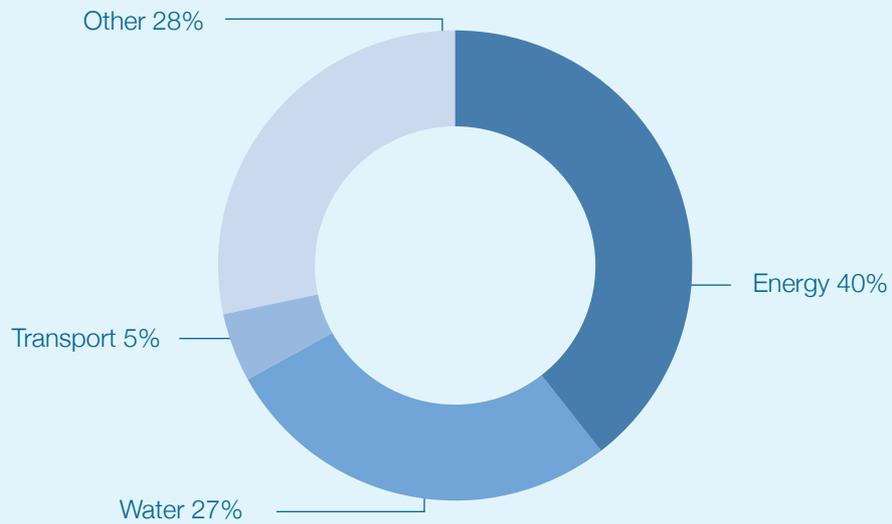


Figure 3 illustrates the sectoral share of the planned non-Exchequer investment of €14½ billion by the State bodies, principally the State-owned companies, over the six years of the Capital Plan. It illustrates the importance of capital investments supported by the State but outside the Exchequer envelope.

FIGURE 3: Sectoral share of planned investments by State bodies, 2016-2021



Structure of the Report

The structure of the report is as follows:

- Chapter 2** explains the economic and budgetary context and the overall strategic objectives underpinning the Capital Plan.
- Chapter 3** presents the details of the Exchequer investment allocations.
- Chapter 4** looks at the level of other State support for investment through non-Exchequer channels, including proposed investments through Public Private Partnerships (PPPs) and State bodies. The chapter also examines the steps Government is taking to maximise the availability and impact of alternative sources of funding for infrastructure provision.
- Chapter 5** sets out the policies and actions that will ensure value for money in the delivery of capital investments. It also highlights Government strategy to support the sustainable development of the construction industry, which is an important component in the timely delivery of infrastructure.

2. Fiscal and Policy Context

In finalising this Capital Plan, the Government has been careful to balance the infrastructural needs of a growing economy with the fiscal imperative of ensuring that the public finances remain robust and sustainable. Just as the difficult decisions to cut back on capital spending represented the right thing to do under the last capital plan, it is now appropriate to make a steady increase in capital expenditure levels over the course of the next six years. This will address remaining bottlenecks, maintain the stock of capital that is already in place and begin to put in place new infrastructure for Ireland now and for the next decade.

Objectives of State Investment in Infrastructure

High-quality infrastructure is an important element of a modern society and economy. It strengthens economic growth through enhancing efficiency, productivity and competitiveness. Investment in infrastructure also underpins social cohesion through providing the facilities for vital services to people in the form of schools, public transport, health care and housing. This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all.

While capital investment makes an important contribution to economic growth, technological progress and productivity growth are also essential to long-term economic development. To help ensure that the positive impacts of public investment are maximised, other supporting policy measures which aim to enhance productivity are necessary.

Sustainable and Affordable

To consolidate the economic recovery that is now well underway, the Government is committed to

increasing public expenditure in a sustainable manner, in line with economic growth. Ireland's positive economic performance has had beneficial impacts on the public finances which continue to strengthen following the successful implementation of a programme of fiscal reform over recent years. At 11.5 percent of the economy's total output in 2009, the underlying General Government Deficit – which is the key measure of the gap between the Government's revenues and expenditure – was unsustainable and needed to be reduced through fiscal consolidation and complementary reforms elsewhere in the economy. Sound management of the public finances, assisted by the economic recovery, brought the deficit down to just over 4 percent of GDP in 2014. Further progress in this area is being made, with the deficit forecast to reduce further to 2.3 percent of GDP in 2015 and continue declining thereafter.

As set out in the Spring Economic Statement (SES)⁴ and the Stability Programme Update (SPU)⁵, Ireland will exit the "Corrective Arm" of the European Stability and Growth Pact⁶ at the end of this year, and fiscal policy will become subject to the provisions contained in the "Preventive

⁴ Spring Economic Statement, April 2015 (<http://www.finance.gov.ie/sites/default/files/SES.pdf>)

⁵ Stability Programme Update, April 2015 (<http://budget.gov.ie/Budgets/2015/Documents/SPU%20for%20Web.pdf>)

⁶ For further information on the preventive arm of the Stability and Growth Pact (SGP) and the Government's fiscal strategy for the period 2016 – 2020 consult Chapter 4 ("Budgetary Strategy") of the Spring Economic Statement (April 2015) (<http://www.finance.gov.ie/sites/default/files/SES.pdf>)

Arm” from 2016 onwards. This represents another significant step forward for Irish fiscal policy and demonstrates the progress that has been made in restoring stability to the public finances. The new fiscal rules that apply under the Preventive Arm of the Stability and Growth Pact will serve as a tool to help us responsibly manage our recovery. With future increases in public expenditure linked to potential economic growth, all areas of current and capital expenditure need to be managed to ensure that public expenditure is sustainable and delivers the maximum benefit to citizens.

As part of this Capital Plan, the Government is also introducing a new Investment Policy Framework for Public Private Partnerships. This will see procurement by PPP continuing as an option, but in a manner that is sustainable over the long term and which the public finances can afford. Under this new framework, the Government has decided to put in place an approach to regulate the overall level of the Exchequer’s future financial commitments under PPPs by capping the aggregate level of annual expenditure on PPP unitary payments relative to the Exchequer capital envelope. The purpose of this is to strike a balance between an appropriate level of investment using PPPs and ensuring that such investment is affordable and sustainable over the medium to long term. It will support the continued prudent use of PPP to augment the level of capital that can be procured directly by the Exchequer, while guarding against committing an undue level of future Exchequer funds to pay for assets in use now.

Determining the Composition of Capital Investment – A Policy Challenge

In order to come to a firm view on the scale and composition of public infrastructure needs over the short-, medium- and long-term, a number of factors need to be considered. Identifying the capital needs of an economy is a complex process, and it includes an examination of the existing level and composition of public capital stock and the social-economic value of infrastructure. In determining the appropriate level of capital expenditure, international comparisons can aid discussion but it is not straightforward to compare or benchmark the level of investment in one country with that in another. Geography, population densities, economic growth, and the scale of any infrastructural deficit are important variables in determining what level of investment is optimal for a country in any given period. What matters too are the type of projects the investments are being made in, not just the overall scale of the investment, and that the investment is efficient.

Public Investment to Date

The levels of investment provided in this Capital Plan must be put into context and set against a backdrop of long term public investment policy. Exchequer capital investment peaked in 2008 at over €9 billion. This was at the end of a period of unprecedented levels of public capital funding that were directed towards addressing long-standing infrastructural deficits. While the severe fiscal

challenges certainly contributed to the subsequent reductions in capital investment following this period, there is also wide recognition that a considerable amount of Ireland's infrastructural deficits and bottlenecks, particularly across the roads network, had been largely addressed. Indeed, the ESRI has reviewed levels of investment by EU Member States over the longer period of 1970 to 2013 and found that Ireland ranks third behind Sweden and the Netherlands in terms of State investment in national infrastructure as a share of GDP.⁷

As Figure 4 shows, total Exchequer (capital and current) spend in Ireland peaked in 2009. In public expenditure terms, the period since then has been defined by the need to reduce overall spending, while protecting frontline services: to deliver frontline services current expenditure on health, social protection and education was prioritised over other areas of spend, including capital investment.

FIGURE 4: Exchequer Voted Allocations 2000-2015: Current & Capital



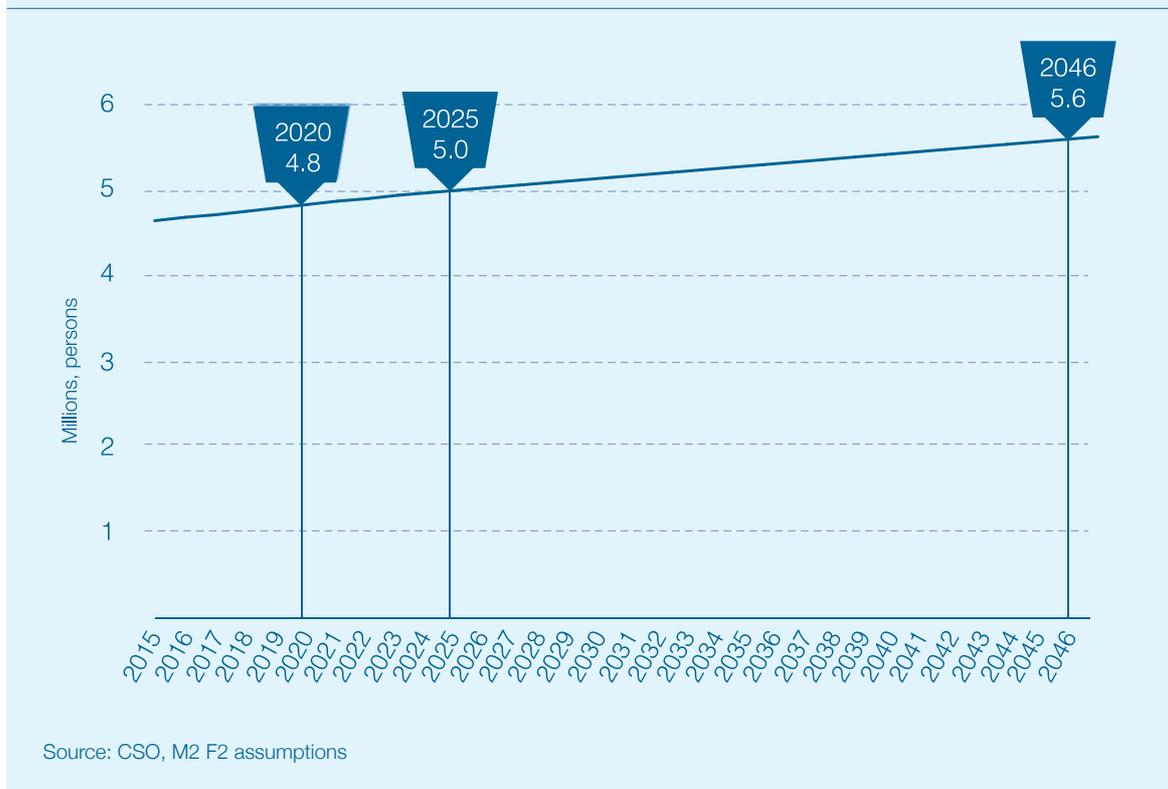
⁷ ESRI (2014) *Submission to the Department of Public Expenditure and Reform on the Review of the Public Capital Programme*

Demographic Demand Drivers & Challenges

Demographic changes significantly drive infrastructure demand. Changes in population size have a direct impact on the overall level of demand: typically, a society with a growing number of people requires more facilities for them. In addition, a change in the composition of the population – for example, shifts in the relative size of the age cohorts in the population - changes the types of services and supporting infrastructure required.

In a small, open economy such as Ireland's, demographics can be particularly complex and subject to significant change over relatively short periods of time. Figure 5 presents CSO population projections out to 2046 under particular assumptions about birth rates and net migration. It shows a projected steady increase in our national population over the next three decades, rising above 5 million by 2025/26 and to over 5½ million by 2046. Population projections are useful to inform and plan future services and identify infrastructure requirements, but at the same time the projections vary quite significantly under different assumptions.

FIGURE 5: Ireland’s projected population to 2046



CSO Population projections

The CSO projects Ireland's population out to 2046, based on Census 2011 data. The data set provides 6 projections (M1F1, M1F2, M2F1, M2F2, M3F1, and M3F2) based on 2 fertility variants high (F1) and low (F2) and 3 migration variants (M1, M2 and M3). The dataset provides yearly population figures broken down by age and sex.

Fertility

F1: Total fertility rate to remain at the 2010 level of 2.1 for the lifetime of the projections

F2: Total fertility rate to decrease to 1.8 by 2026 and to remain constant thereafter.

In 2013, the fertility rate for Ireland was 1.96 which is lower than the rate of 2.01 in 2012.

This decline is expected to stabilise, remaining below 2010 levels suggesting that F2 is more applicable to the current trend.

Migration

M1: Net migration returning to positive by 2016, and rising steadily thereafter to +30,000 by 2021

M2: Net migration returning to positive by 2018 and rising thereafter to +10,000 by 2021

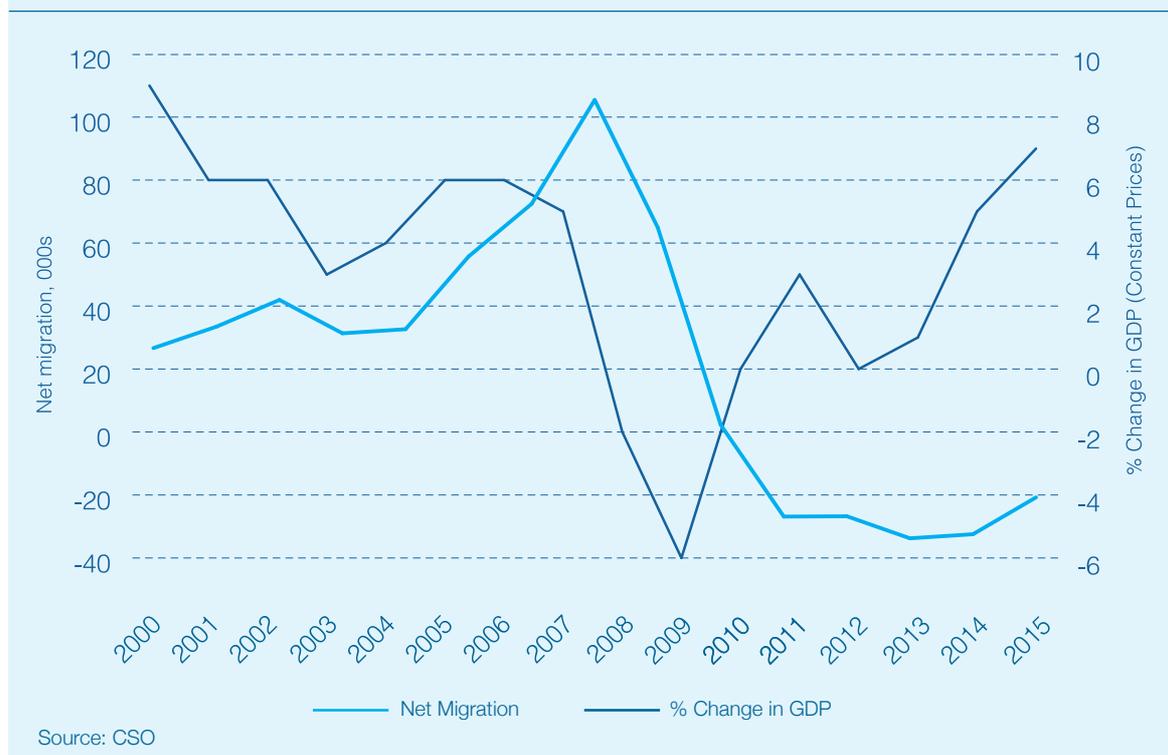
M3: Net migration remaining negative for the whole period

In terms of migration it is less clear if M1 or M2 is more applicable; M3 is unlikely net migration patterns have seen increasing emigration since 2010, however, trends appear to be reversing with net migration increasing to -11.6 in 2015 from -21.4 in 2014 and -33.1 in 2013.

If the positive trends in net migration are expected to continue then M2F2 could be seen as the most appropriate forecast. This projection is broadly consistent with the Department of Finance's population assumptions for economic forecasts.

In Ireland, actual population figures are often quite different from projections. Changes in net migration are subject to significant swings that are driven by economic conditions. During times of strong economic growth and times of recessions, net migration rates fluctuate quite significantly, which can alter greatly the demand for housing and school places, for example. As Figure 6 shows, net inward migration rose from 2000 to 2007 and fell off sharply from 2008 onwards. Only in the recent years has this begun to turn around, reflecting the economic recovery.

FIGURE 6: Net Migration and GDP changes 2000 to 2015



Departments and agencies with sectoral responsibilities conduct their own detailed assessments of demand requirements that inform their prioritisation of capital expenditure. The box below presents some of the key, high level sectoral drivers that impact on long term public investment requirements.

Selected drivers of long term public investment requirements

SECTOR	DRIVER
Transport	As well as population growth, rising economic activity is the main driver of demand for transport. Total road kilometres travelled and annual bus journeys have shown recent increases as the economy improves but remain below pre-crisis peaks; the challenge here is to maintain and safeguard investments and look at measures to address congestion in urban areas as growth places demands on transport infrastructure.
Education	<p>The birth rate and migration are the key drivers for school and college places. It is expected that the demand for school places will peak in 2018 for primary school places and 2025 for secondary school places.</p> <p>Importantly, however, demographic change is not evenly spread across the country – growth is concentrated in urban and commuting areas. As such, the geographical distribution of projected pupil population increases must be matched against the existing profile of schools to inform the prioritisation of future capital investment.</p>
Health	An ageing population requires particular social infrastructure such as long term residential care facilities for the elderly. The number of the population aged 65+ is projected to increase from 530,000 to over 1.4 million by 2046.
Housing	Demand for housing will remain high over the medium term due to demographic factors and changes in household structures, particularly an increase in single person households. The Housing Agency estimates indicate 21,000 new housing units will be required per annum for the next number of years. ⁸
Environment	The developments in climate change and the need to meet EU emissions targets will require intervention in the areas of energy efficiency and renewable energy. Investments are also needed in flood prevention to mitigate the impact of climate change.

⁸ Housing Agency (2015) *National Statement of Housing Supply and Demand 2014 and Outlook for 2015-17*
<http://www.housing.ie/getattachment/Our-Publications/Latest-Publications/FINAL-TO-PRINT-Housing-Supply-Demand-Report-v4.pdf>

Supporting Economic Growth and Jobs

This Capital Plan will have a positive impact on job creation across the country and in almost every sector of the economy. It will serve to underpin the Government's commitment to seeing full employment of 2.1 million people in 2018, as set out in its *Action Plan for Jobs*.⁹ Investment in infrastructure, such as transport and communication networks, energy and water, is an important enabler of economic growth and the wider State sector, including the commercial State-bodies, has an important role to play in these areas. In addition, significant investments are planned to support enterprise and innovation. In 2014, over 320,000 people were employed full-time by businesses supported by the main enterprise agencies. Investment in enterprise and innovation included in the Capital Plan will continue to support and grow the numbers employed in indigenous and foreign-owned firms. Over the six years of the Capital Plan, it is estimated that around 45,000 construction jobs will be sustained through the Exchequer investments in physical infrastructure alone.¹⁰

Conclusion

As we now look forward to a period of steady and sustainable growth in public expenditure, the Government is in a position to optimise the impact of public expenditure through targeted investments in priority social and economic areas where the need is greatest such as in education, health and housing, and supporting economic growth through investments in transport and supporting job creation. The new Capital Plan seeks to build on prior investments in a way that is sustainable and long-term in its design and focus, building on the stock of infrastructure already delivered and setting a course to return to investment levels typical of a developed economy. These investments will also be complemented by other State initiatives that provide funding and investment in support of capital development. These include the Ireland Strategic Investment Fund (ISIF) and the capital programmes of the State-owned companies, which also make a significant contribution to the overall level of public investment.

⁹ Department of Jobs, Enterprise and Innovation (2015) *Action Plan for Jobs* (<http://www.djei.ie/enterprise/apj.htm>)

¹⁰ See Appendix. Based on research by the Department of Public Expenditure and Reform's Irish Government Economic and Evaluation Service Unit. Publication forthcoming.

3. Exchequer Investment

Under this Capital Plan direct Exchequer capital expenditure by the State will be €27 billion over the period 2016 to 2021. This represents the largest component of the Government's Plan and will deliver projects and programmes across a wide range of areas, including schools, roads, public transport, healthcare, flood defences, social housing, heritage, broadband, enterprise and sport. Table 1 below presents the Exchequer Voted capital allocations to Departments for the next six years.

Table 1: Exchequer Capital Envelope 2016-2021

	2016	2017	2018	2019	2020	2021	Total, 2016-2021
€ million							
Total	3,800	3,970	4,230	4,600	5,000	5,400	27,000
Agriculture, Food & the Marine	217	208	208	208	208	208	1,257
Arts, Heritage & the Gaeltacht	76	45	43	46	46	46	302
Children & Youth Affairs	22	22	23	23	23	23	136
Communications, Energy & Natural Resources	107	107	137	192	192	192	927
Defence	66	67	67	78	78	81	437
Education & Skills	545	599	623	654	700	700	3,820
Environment, Community & Local Government	539	623	709	685	700	700	3,956
Finance	25	25	25	25	25	21	146
Foreign Affairs & Trade	4	4	4	4	2	2	20
Health	414	454	473	550	570	600	3,061
Jobs, Enterprise, & Innovation	495	525	490	500	500	500	3,010
Justice	130	157	118	150	160	160	875
Public Expenditure & Reform [Less OPW]	9	9	8	2	2	2	32
Office of Public Works	102	102	127	137	147	157	772
Social Protection	11	9	8	8	8	8	52
Transport, Tourism, & Sport	1,039	1,015	1,167	1,238	1,607	2,000	8,065
Unallocated	0	0	0	100	32	0	132

Transport

Economic growth is dependent on our capacity to move people and goods into and around the country quickly and easily, and significant strides have been made since 2000 in improving Ireland's national transport infrastructure. People use the transport system daily to access work, leisure and public services, and transport also directly impacts on the cost base of businesses and their ability to access international markets. It is therefore essential that road, rail and public transport networks are developed and maintained to the standard required to ensure the safe and efficient movement of people and freight. In addition, getting people out of cars and onto public transport has a key role to play in reducing Ireland's carbon emissions, by providing a viable, less polluting alternative to car and road transport for many journeys.

The Exchequer transport capital allocation is largely framed by the recommendations and priorities set out in the recently published *Strategic Investment Framework for Land Transport*.¹¹ These priorities are threefold: to maintain and renew the strategically important elements of the existing land transport system; to address urban congestion; and to improve the efficiency and safety of existing transport networks.

In recognition of the fact that medium- and long-term planning of transport infrastructure is well developed, the €9.6 billion capital envelope for transport will be provided over seven years. This will include €6 billion for investment in the national, regional and local road network and €3.6 billion in Public Transport. A €28 million investment package for safety and security enhancements at the regional airports to ensure connectivity for balanced regional development is also included in the Capital Plan.

The largest single project will be a new metro link in Dublin. Based on the outcome of the recent Fingal/North Dublin Transport Study, the National Transport Authority has recommended that a revised metro project be selected as the appropriate public transport project to address the transport needs of the Swords/Airport/ City-Centre Corridor. It is planned that Metro North will be in operation by 2026/2027. Along the corridor travel demand is forecast to grow by up to 40 percent by 2033 and where the current and potential future levels of car dependency are unsustainable.

¹¹ Department of Transport, Tourism & Sport (2015) *Investing in Our Transport Future: Strategic Investment Framework for Land Transport* <http://www.dttas.ie/corporate/publications/english/investing-our-transport-future-strategic-investment-framework-land>

Table 2: Transport - seven-year envelope, € million

	2016	2017	2018	2019	2020	2021	2022	Total
Roads	591	622	743	832	996	1,082	1,082	5,948
Public Transport	348	321	368	358	533	845	845	3,618
Total Departmental allocation including Tourism, & Sport	1,039	1,015	1,167	1,238	1,607	2,000	2,000	10,065

Public Transport

An investment of €3.6 billion will enable a number of major public transport projects to proceed, and it will also fund additional capacity to meet existing commuter needs. Under the Capital Plan, construction of a metro link between the City Centre, Dublin Airport and Swords will commence in 2021. The first phase of a multi-phase DART expansion programme will also begin, with the extension of the DART line to Balbriggan and with design and planning to progress for expansion of DART services to Maynooth in the west and Hazelhatch in the southwest. The Dart Underground Project, which remains a key element of integrated transport for the GDA over the longer term, will be redesigned to provide a lower cost technical solution, whilst retaining the required rail connectivity. In advance of the Mid Term Review, the Government will commission a feasibility study to examine options for expanding freight transport on the railways.

There will be funding for:

- New and replacement buses
- Further upgrading of Quality Bus Corridors
- Completion the Luas Cross City project
- Completion of the Dublin City Centre Resignalling programme
- The reopening of the Phoenix Park tunnel
- The construction of a new Central Traffic Control centre for commuter and intercity rail
- Ongoing maintenance to ensure the safety and efficiency of the rail network

Metro North – Dublin City Centre to Swords, North County Dublin

The new Dublin metro rail project will be a 16.5km line connecting St Stephen's Green to Swords, via Dublin Airport. It is expected that construction of the project will commence in 2021 and that the new rail line will be open to passengers by 2026/27.

About half of the route will run underground, including a tunnel from St. Stephen's Green to Griffith Avenue and tunnelling also under the airport. Fourteen stops are proposed on the line: 8 surface stops and 6 underground stops.

The route will provide a modern, efficient public transport service to people travelling to and from the city centre, Mater Hospital, Drumcondra, Dublin City University and the Airport. Along the route it will serve Drumcondra, Ballymun and Swords. The route will have journey time of 19 minutes from O'Connell St to the Airport and 31 minutes from O'Connell Street to Swords Estuary.

The service will operate with 60-metre light metro vehicles, which can be expanded in future if required. It is expected that service frequency will be every 2½ minutes, increasing to every 2 minutes as demand increases over time.

Roads Programme

The Capital Plan provides €6 billion for investment in the roads network, with €4.4 billion to ensure the existing extensive network throughout the country is maintained and strengthened and €1.6 billion for new projects, including:

- N5 Westport to Turlough
- N22 Ballyvourney to Macroom
- N8/N25 Dunkettle Interchange
- N4 Collooney to Castlebaldwin
- M7 Naas to Newbridge Bypass Widening
- N56 Dungloe to Glenties
- Sallins Bypass
- Moycullen Bypass

- N56 Mountcharles to Inver Road
- New bridge and approach roads over the Garavogue River in Sligo
- Roads will also be upgraded into Grange Castle Business Park in West Dublin to provide access for a number of global industries

Under the PPP programme three major projects will be delivered:

- N17/18 Gort to Tuam – under way
- M11 Gorey to Enniscorthy
- N25 New Ross By-Pass

A number of other schemes, targeted at removing bottlenecks, will also commence subject to planning permission. These include the Shannon Crossing Bridge at Killaloe, Galway By-Pass, Mallow Relief Road, Adare By-Pass, Slane By-Pass, the N28 Cork to Ringaskiddy Road, N69 Shannon to Foynes Road, Athy Southern Distributor Road, Portlaoise Southern Distributor road, Phase 4 of Dingle Relief road and Laytown to Bettystown Link road.

The Government remains supportive of the commitment under the St Andrews Agreement to co-fund the construction of the A5 through Northern Ireland to Derry, which will improve access to Derry and North Donegal. The timeframe for this project is dependent on planning

issues which are currently being addressed by the Northern Ireland authorities. Once planning, timing and costs associated with this major scheme are settled, consideration will be given to funding implications within the overall Government capital plan.

Sustainable Transport

Investment in our public transport system will uphold the principles of the Government's Smarter Travel policy. Under the Capital Plan, €100 million is being committed to smarter travel and carbon reduction measures, including Greenways, to ensure that the transport sector makes a major contribution to climate change mitigation targets.

Institutional Reform – Establishment of Transport Infrastructure Ireland

Transport Infrastructure Ireland (TII) was established on 1 August 2015. Formed through the merger of the National Roads Authority and the Railway Procurement Agency under the Government's Agency Rationalisation Programme, the new organisation is now the centre of expertise in Ireland for the planning, delivery and management of capital transport projects. It will ensure that the project and financial management skills built up during the course of the construction of the major inter-urban motorways and Luas are retained. This centre of expertise will soon be further strengthened by the transfer into TII of the PPP procurement functions of the National Development Finance Agency.

Improving Education Facilities

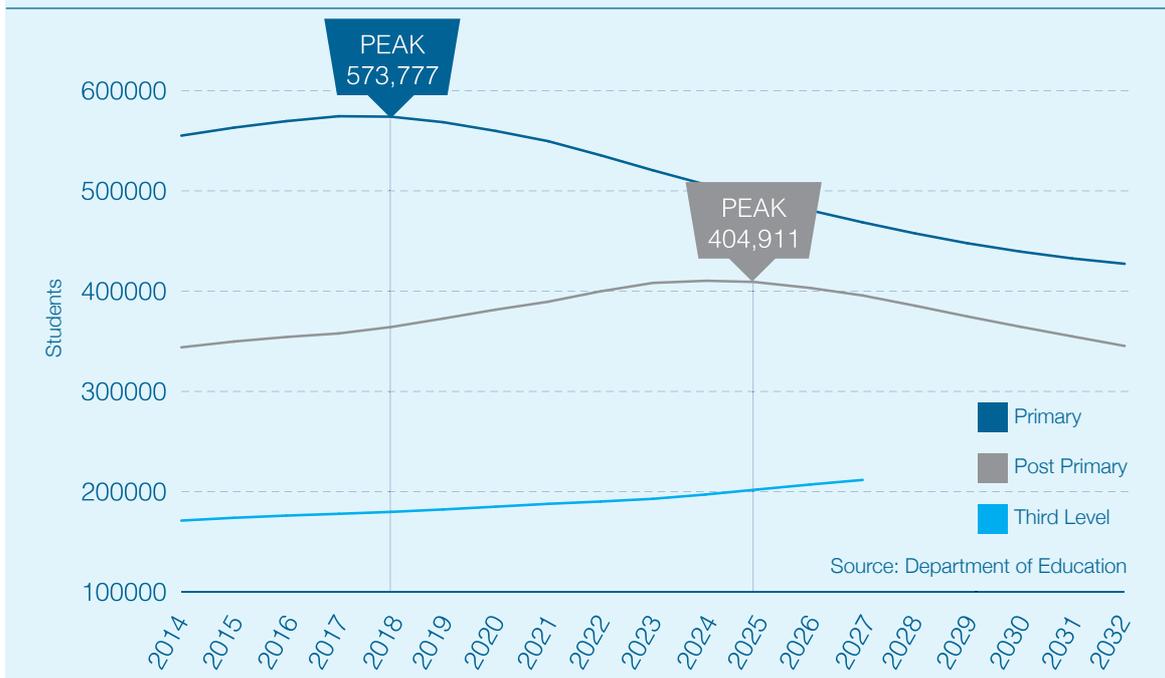
The Capital Plan provides €3.8 billion in direct Exchequer funding for investment in primary, secondary and third level education facilities, combining the upgrade and extension of existing educational infrastructure and the provision of new buildings. The key objective of this investment is to meet the demographic demand for school places, which will impact on the primary and post primary school sector during the period of the Plan and feed through to the further education and third level sectors thereafter.

Table 3: Education, € million

	2016	2017	2018	2019	2020	2021	Total
Allocations	545	599	623	654	700	700	3,820

As the chart below shows, enrolments in the primary school sector are set to peak in 2018 and are projected to fall thereafter. This peak will move through to affect the secondary level sector by 2025.

FIGURE 7: Department of Education Enrolment Projections – All levels



The previous capital plan and subsequent stimulus programmes prioritised investment in primary and post-primary schools, funding the delivery of 139 large scale projects – 84 new/replacement schools and 55 major extensions – in the period between 2012 and 2014. Many smaller scale projects at school level, involving the addition of extra classrooms to meet immediate enrolment demands, were also funded. The combination of the large and smaller scale projects provided 75,000 permanent school places over a three year period, of which 60,000 were additional places.

The capital allocation under this Plan will fund the delivery of a further 19,000 additional primary school places required by 2018 and a further 43,000 additional post-primary school places required by 2022, as well as a significant programme of replacing existing ageing pre-fab accommodation with permanent classrooms and facilities. In addition, the allocation will facilitate

the completion of the large scale stimulus projects already announced. It will also fund the cost of ongoing refurbishment projects across the school system, support minor works, site acquisitions and emergency works.

Complementing this ambitious building programme, the capital allocation will allow for investment of €210 million to upgrade school ICT and the installation of robust wireless networks in all schools under the Government's Digital Strategy for Schools.

In the third level sector, there will be an extra €110 million for facilities in the Higher Education sector. This is in addition to the €40 million already committed to the Grangegorman DIT project. This will facilitate essential works. Under PPPs, there will be an extra €200 million invested in the third level sector. The Capital Plan will also fund Higher Education Research Activities.

School Prefab Replacement

Phase 1 of the Prefab Replacement Initiative was launched in 2012, replacing 458 prefab units with permanent accommodation at 167 primary schools and 4 post-primary schools. Phase 2 of the Initiative was announced in June 2013 to allow 46 schools to replace 119 mainstream classrooms and 37 resource rooms. While this work is continuing, the next step in this initiative is to begin the process of replacing old purchased prefabs with permanent accommodation. The extension of the prefab replacement initiative will ensure that the use of prefab accommodation in schools will be greatly reduced.

Energy Efficient Schools

The Department of Education and Skills has been recognised at both national and international level with sustainable energy awards for excellence in design, specification and energy awareness to schools. All new schools and extensions must achieve a top A3 band Building Energy Rating (BER). Schools constructed in line with the Department of Education and Skills guidance will be up to twice as energy efficient as international norms.

A number of measures contribute to the energy efficiency of schools, including:

- Schools positioning to maximise gain from the sun during the day for passive solar heating and natural daylight;
- Passive solar design to save 20 percent of early morning heating period and automated lighting systems in the classrooms to eliminate the need for additional electrical light for up to 80 percent of teaching hours;
- Energy efficient boilers, individual digital room temperature controls and insulation levels to minimise heat requirements; and
- Water usage minimised through automatic shut off taps and rain water recovery for flushing dual flush toilets.

Enterprise Supports

Reflecting its importance for employment and for the economy, investment levels in support of enterprise were largely protected under the previous Capital Plan and will continue to receive a significant allocation over the period 2016 to 2021. A key objective is to ensure that the economic recovery is broad based and is sustained by development and growth in the multinational and indigenous sectors throughout the country. To help achieve this, funding will continue to be provided to grow exports and business through the State's main enterprise support agencies and also through the new Local Authority-based Local Enterprise Offices, the Department of Agriculture, Food and the Marine and the State tourism bodies. The food, drinks and tourism sectors, for example, have proven resilient and high value contributors to the economic recovery and have a large growth potential.

Table 4: Enterprise Supports, € million

	2016	2017	2018	2019	2020	2021	Total
Jobs, Enterprise & Innovation	495	525	490	500	500	500	3,010
Agriculture, Food & the Marine	217	208	208	208	208	208	1,257
Tourism	14	13	13	15	25	26	106
Total	712	733	698	708	708	708	4,267

Total investment in supporting new and expanding businesses across all of the key sectors of the economy, targeting jobs growth in our cities and in rural communities, will be almost €4.3 billion over the course of the Capital Plan.

The Department of Jobs, Enterprise and Innovation will receive €3 billion in capital funding as part of the Capital Plan. Of this, in excess of €1.1 billion will be allocated to the to support business and jobs primarily through Enterprise Ireland, IDA Ireland and the Local Enterprise Offices. The allocation includes a new regional building programme to provide buildings and related infrastructure. This will enable the provision of suitable office space, advanced manufacturing units and high-technology facilities to help secure future jobs investments across Ireland. Funding will also be made available to further grow Ireland's entrepreneurial capacity with a particular focus at regional level.

There will be over €1.25 billion in capital investment in the Agriculture sector over the period of the Plan, which takes account of Government commitments to fully implement the EU co-funded Rural Development and Seafood Development Programmes, the Forestry Programme and a number of other specific projects. The capital allocation for 2016 will be €217 million, allowing significant progress to be made in implementing

the Department of Agriculture, Food and the Marine's major development programmes. In the subsequent years, €208 million is provided for this purpose and this will be kept under review during the course of the Capital Plan to ensure that all programmes are fully implemented. The capital envelope will help underpin Food Wise 2025 – the new 10 year plan for achieving sustainable growth in the agri-food sector – and it will also allow:

- the Rural Development Programme to be further resourced to support on-farm investment by farmers to facilitate the sustainable expansion of the agri-food sector, particularly in the immediate post-milk quota period;
- the capital elements of the Seafood Development Programme to be fully funded and further development of our Fisheries Harbour Centres, including Castletownbere and Ros an Mhíl.
- a further roll out of the Forestry Programme to support the planting of over 43,000 hectares of new forests; provide afforestation grants for new planting; and the payment of annual forestry premia to farmers who have converted their land to forestry.

In the Tourism area, there will be further investment in initiatives of sufficient scale to stand out in the international marketplace, namely, the development of visitor attractions such as the Wild Atlantic Way (see box) and Ireland's Ancient East. Recent strong tourism performance, particularly in terms of overseas visit numbers and revenue, and the ambitious targets which have been set

in the Government's Tourism Policy Statement, *People, Place and Policy – Growing Tourism to 2025*, reinforce the crucial role tourism plays in our economic fortunes.¹² It is a labour intensive sector, employing in the region of 205,000 people across all areas of the country, with a particularly positive impact in rural areas.

The Wild Atlantic Way is Ireland's first long-distance touring route, stretching along the Atlantic coast from Donegal to West Cork.

The overall aim of the project is to develop a long-distance route that will achieve greater visibility for the west coast of Ireland in overseas tourist markets. It gives people a chance to explore and to sample a rich variety of things to see and do all along the coast from Cork to Donegal.

To date the entire route has been signed and over 188 Discovery Points – places of interest for visitors to stay and learn about the area – have been put in place. Located all along the route, these Discovery Points are distinct sites, large and small, each chosen for their potential to offer visitors an authentic experience of the natural and wild landscape and seascape. Each point will have enhanced parking facilities as well as large scale information and interpretative signage. Its iconic status for the West of Ireland will be complemented by the development of "Ireland's Ancient East", across the East, Midlands and South regions.

¹² Department of Transport, Tourism, and Sport (2015) *People, Place, and Policy: Growing Tourism to 2025* (<http://www.dttas.ie/sites/default/files/publications/tourism/english/people-place-and-policy-growing-tourism-2025/people-placeand-policy-growing-tourism-2025.pdf>)

Modernising Healthcare Provision

The Capital Plan includes just over €3 billion for investment in health infrastructure, and the Department of Health has identified five main priority areas to begin a long term programme of transformation of health care facilities across the country.

These key areas are:

- Children and Maternity
- Mental Health
- Cancer Care
- Social, Community and Primary Care
- System wide investment in Information Communication Technology

Table 5: Healthcare, € million

	2016	2017	2018	2019	2020	2021	Total
Allocations	414	454	473	550	570	600	3,061

The new National Children's Hospital at St James's Hospital, with satellite centres at Blanchardstown and Tallaght, will bring together the three existing children's hospitals in Dublin into one entity on one campus. This project will represent the largest health infrastructure project ever undertaken in Ireland. In addition, the Capital Plan supports a reorganisation of national maternity services. The National Maternity Hospital will be relocated to the St. Vincent's campus, and towards the later years of the Plan the Rotunda, the Coombe and Limerick maternity hospitals will move to Connolly Hospital, St James's Hospital and University Hospital Limerick, respectively.

In the area of mental health, there will be a new National Forensic Mental Health Services facility in Portrane, replacing the Central Mental Hospital, which is now proposed to be undertaken by PPP. Following completion of this project, work will begin on new specialist intensive care

rehabilitation units at Galway, Cork and Portrane. This investment recognises that mental health is a growing health and social issue and one which will be the leading cause of chronic disease in high income countries by 2030.

With the number of newly diagnosed cancers projected to more than double in the period to 2040, investment in this area continues to be of critical importance. Over the period to 2021, the new departments at Cork University Hospital and University Hospital Galway will be completed, delivering five linear accelerators at Cork and four at Galway. There will also be further investment in existing facilities at Beaumont Hospital.

The development of primary care remains central to the Government's objective to deliver a high-quality, integrated and cost-effective health care service at the community level. The development of primary care is central to this, by shifting the

balance of care from a hospital-centric service to one located in the community, enabling people to easily access a broad spectrum of services at the local level. Over the period of the Plan, over 80 new primary care facilities will be provided right across the country, building on the 44 delivered since 2011. This will be done through a combination of direct build by the State, through

PPPs and by way of operational leasing. The facilities will house GP and community nursing teams and will offer additional services including physiotherapy, social work, counselling, and occupational therapy. In addition, there is €300 million to invest in replacement, upgrade and refurbishment of long-term care facilities for older people and people with disabilities.

Housing

The Government believes that everyone should have access to good quality housing suited to their needs at an affordable price and in a sustainable community. Under the Capital Plan, Exchequer capital funding of almost €3 billion will be provided in support of the *Social Housing Strategy 2020*, which aims to increase the supply of social housing by up to 35,000 units and contribute significantly to meeting the housing needs of households on the housing list.

Table 6: Housing, € million

	2016	2017	2018	2019	2020	2021	Total
Allocations [1]	500	570	580	450	400	400	2,900

[1] This is predominantly Exchequer funded. It also includes €77 million per annum of Local Authorities through own-resources.

Social housing is being prioritised by making significant funding available in the Capital Plan, with a sharp increase in the supply of social housing designed to complement measures under the Government's Construction Strategy 2020, which seeks to facilitate an increase in housing supply generally. Around 35,000 additional social housing units will come on stream between now and 2020, drawing on Exchequer and non-Exchequer sources of funding. A further 75,000 households will have their housing needs met through leasing and renting in the private rental sector over the period of the Capital Plan.

Social housing units will be delivered through a combination of new builds, acquisitions

and refurbishment of vacant dwellings. Local Authorities, Approved Housing Bodies, and PPP investments will supply these homes.

Under PPP, €300 million will be invested in social housing which is expected to deliver 1,500 social housing units. Potential sites have been identified and details of the first PPP bundle for procurement of some 500 units will be announced soon.

Further options are being developed for the use of the €400 million proceeds of the sale of Bord Gáis Energy, as announced in Budget 2015, and this amount will be used to leverage additional private funding to facilitate the provision of more social and/or affordable housing via the voluntary and/or

private housing sectors. In addition, the National Asset Management Agency will facilitate the completion of 4,500 new residential units in the Dublin area by the end of 2016 and, through intensive asset management of residential sites, will aim to ensure that additional new supply can be delivered as soon as possible thereafter.

There continue to be significant supply issues in the housing market generally in Ireland, particularly in the major urban centres, and this has knock-on effects for social housing. The causes of this under-supply are complex and heavily coloured by legacy issues from the banking crisis, and so it demands a multi-faceted policy response from Government and action by the industry itself. The investments outlined above represent a key element of that response.

Lord Edward Street Sheltered Housing Scheme, Limerick

As part of the Limerick Regeneration Project the Lord Edward Street Sheltered Housing Scheme will provide 83 homes for elderly residents. The project is at pre-tender stage, and has a projected construction cost of around €14 million. This housing will be ready in early 2017.

It is just one example of the many hundreds of projects around the country that will be progressed under the Social Housing Strategy.

Responding to Climate Change

The Government's *National Policy Position on Climate Action and Low Carbon Development* establishes the fundamental national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.¹³ It is vital that Ireland's economy and society is protected, as far as possible from the longer-term, adverse effects of climate change, through adopting appropriate mitigation and adaptation, including future-proofing strategies. In addition to the specific funding allocations outlined below, investment projects across many other areas of the Capital Plan – including the upgrade of public building stock to more energy efficient levels, the significantly improved energy efficiency of school buildings, and delivery of improved public transport to reduce emissions from

¹³ Climate Action and Low-Carbon Development National Policy Position Ireland
(<http://environ.ie/en/Publications/Environment/Atmosphere/FileDownload,37827,en.pdf>)

Table 7: Climate Change, € million

	2016	2017	2018	2019	2020	2021	Total
Energy Efficiency and Renewable Energy	62	62	72	82	83	83	444
Flooding	45	45	70	80	90	100	430
Total	107	107	142	162	173	183	874

the transport sector will have a beneficial climate change impact.

The Capital Plan is allocating €444 million for investment in energy efficiency and renewable energy programmes from 2016 to 2021. This will provide additional funding for investment in domestic energy efficiency improvements. It will also enable much needed investment to assist people with low incomes who find energy unaffordable and whose wellbeing is negatively affected because of this. Investments will also contribute to a new Affordable Energy Strategy, being developed by the Department of Communications, Energy and Natural Resources, that aims to reduce the number of households living in energy poverty. The Affordable Energy Strategy will be published by the end of the year.

Support will also be provided for a new Renewable Heat Initiative and for commercial and industrial energy efficiency programmes. The Renewable Heat Initiative is aimed at incentivising larger commercial and industrial installations to convert to renewable heating – primarily biomass – targeting a potential market of 3,000 customers. Funding will be made available for the Electric Vehicle subsidy, which helps make electric vehicles more affordable. These schemes will complement ongoing energy efficiency initiatives such as the

Better Energy Homes scheme and the energy retrofitting of social housing units.

Energy efficiency and renewable energy programmes will play a key role in helping Ireland meet its 2020 and 2030 climate change and energy targets as well as reducing expenditure on imported fossil fuels, underpinning domestic energy sector employment and reducing emissions from our annual energy usage. As well as Exchequer investment, the commercial State sector also plans investments in renewables, including biomass and forestry, in order to deliver upon the Government's objectives in this area.

To address flooding, which can have a devastating impact on affected communities and local economies, €430 million is being provided under the Plan for flood mitigation initiatives to protect threatened localities from river and coastal flood risk. This will serve to build on substantial investments made in recent years for example in Clonmel, Dublin, Ennis and Fermoy, with similar remedial and prevention works scheduled for Arklow, Bandon, Claregalway, Templemore, Enniscorthy and Skibbereen. The introduction of a new Flood Risk Management programme by the Office of Public Works will put in place a long term plan of works to systematically identify and mitigate the risk of flooding across the country.

Flood Defence Works: Cork City

In light of the significant flooding experienced in Cork city in recent years and the high risk of considerable damage to property from both tidal and river flooding, the development and construction of a flood defence scheme for the city has been given a high priority. The Capital Plan will support the largest ever flood defence scheme undertaken by the Office of Public Works and will offer protection from flooding to around 2,000 residential and commercial properties. The scheme will take at least 4-5 years to complete. Subject to a successful public consultation on the proposals and statutory approval, it is expected that works will commence in 2016.

What does the scheme involve?

- New walls and embankments at Curraheen, Glasheen, North Channel and some parts of the South Channel
- Flow reduction on the South Channel
- Development of detailed Flood Forecasting System
- Development of Optimised Dam Operating Procedures for extreme events
- Localised defences between Inniscarra and the City
- Flood Gates at some footbridges and boardwalk locations
- Localised surface water pumps

Public information days have been held in Cork at which the preliminary options have been presented to the public. The required statutory Public Exhibition for the proposed works at Blackpool is expected to proceed in late 2015 with works expected to commence in the second half of 2016. The statutory Exhibition for the main scheme works in the city is expected to proceed in early 2016 following which the scheme design will be finalised with a view to commencing phased construction in 2017.

Justice and Policing Reform

A key priority for the Justice Sector over the period of the Plan is to support Garda reform through investment in ICT infrastructure, which has been identified as a critical enabler for far reaching organisational and operational transformation

of policing in Ireland.¹⁴ This investment will support a more efficient deployment of policing resources, enhance crime investigation and enable intelligence-led policing, all of which are key to better crime prevention and safer communities in our cities and rural towns and villages.

¹⁴ Crime Investigation, Report of the Garda Inspectorate (October 2014) - <http://www.gsinsp.ie>

The Government is setting aside an unprecedented level of additional investment of €205 million for Garda ICT which will bring total expenditure in Garda ICT over the period to €330 million. The return on that investment will be a modern and more effective policing service. The roll out of new ICT systems and other technological supports will help optimise the capacity of An Garda Síochána and allow it to meet the existing and future policing and security needs of communities and the State.

A detailed, multi-annual Garda reform plan is being finalised that will integrate planned ICT investment with parallel reform of management structures and operational procedures. This reform plan will have regard to the lessons and recommendations arising from various reports into An Garda Síochána, most notably those by the Garda Inspectorate, and it will also draw on best international policing practices.⁶ The release of the capital investment by Government is predicated on finalisation and agreement of the Garda reform plan.

In tandem with the implementation of the reform agenda in An Garda Síochána, there will be considerable investment in Garda stations across the country and a more than doubling of the level of investment in the Garda fleet over the period. Three divisional headquarters in Dublin (Kevin Street), Galway City and Wexford Town with a total cost of approximately €100 million will be completed by 2018, and the Capital Plan now provides for a sizable new PPP investment to deliver a number of new Garda stations and facilities, details of which will be finalised by the

Department of Justice and Equality in consultation with An Garda Síochána shortly. The other key projects in the Justice area will be:

- a new Forensic Science Laboratory, building of which will commence in 2019 at the State's Backweston site in County Kildare;
- the construction /redevelopment of seven Courthouse venues by way of ongoing PPP;
- the development of a new, purpose built Family Law and Children's Courts complex, which will be delivered by way of PPP;
- a €10 million refurbishment programme for the Courts Service;
- significant development work in Limerick and Portlaoise prisons.

Culture, Heritage and Sport

The way in which we protect our natural and built environment and promote and showcase our cultural contributions to the world form a crucial part of our national identity and of Ireland's attractiveness as a place to live and visit. Culture and heritage support economic sectors such as tourism – a key employer and provider of value-added in the Irish economy – while also providing substantial societal benefits. Whilst the value of investment in encouraging cultural awareness and participation in the arts is more challenging to quantify than investment in purely economic infrastructure, initiatives in this area – for example, protecting our built and natural heritage so that it remains in place for current and future generations – are nonetheless important. Next year will be a particularly significant year as the nation commemorates the anniversary of the 1916 Easter Rising.

¹⁴ The Garda Inspectorate is an independent, expert statutory body that advises the Minister for Justice and Equality and ultimately the Government on best practices in police operations and administration.

Protecting our natural heritage will remain a key priority, particularly conservation of peatlands, with measures directed towards rehabilitation and environmental improvement for the peatlands ensuring that biodiversity and wildlife are protected. There will also be investment in cultural infrastructure, including the National Cultural Institutions and Regional Arts and Cultural Centres.

Similarly, the societal benefits of sport and physical activity are significant. Not only does sport improve physical health and safeguard against a number of diseases and illnesses, it improves mental health and develops a better all-round quality of

life. As well as investing in local facilities to boost participation at grassroots level, we recognise that our elite national athletes can benefit from high quality facilities to support them to attain their potential. A capital envelope of over €285 million for sports facilities over seven years, targeted at both local and national level will deliver substantial benefits. Given the continuing levels of demand for local sports facilities throughout the country, it is envisaged that this allocation will enable further rounds of the Sports Capital Programme in the later years of the Capital Plan. The allocation will also cover funding for the National Indoor Arena at National Sports Campus Ireland.

1916 Commemorations – Ireland 2016

One of the most significant developments over the coming period will be the delivery of Ireland 2016, the Government's wide ranging national commemorative programme initiative

The Government has approved and provided funding for seven flagship capital projects to serve as permanent reminders of the 1916 Easter Rising. These are:

- the GPO Interpretative Centre which will showcase the role of the GPO in the history of the foundation of the State;
- the restoration of Richmond Barracks, in particular the building where the 1916 leaders were interned and court-martialled;
- development of a cultural centre at Teach an Phiarsaigh in Ros Muc;
- refurbishment of the Athenaeum, Enniscorthy;
- a Tenement Museum at No. 14 Henrietta Street as a centre for the exploration of Georgian and tenement life in Dublin;
- the refurbishment and upgrading of Kilmainham Gaol and Courthouse to provide an enriched visitor experience;
- the restoration of the Kevin Barry Rooms at the National Concert Hall where the Treaty ratification debates took place; and
- the provision of a new Military Archives space at Cathal Brugha Barracks.

The Government has also acquired the National Monument at 14-17 Moore Street to allow for the development of a 1916 Commemorative Centre.

Connectivity

The Capital Plan will facilitate a step up in investment levels for technological infrastructure throughout the country. The Capital Plan contains direct Exchequer funding for the recently agreed National Broadband Plan (NBP). There will also be funding opportunities for broadband and technology under the Ireland Strategic Investment Fund (ISIF) and the European Fund for Strategic Investment (EFSI) - see Chapter 4 for further information on these funds.

This means that over the course of the Capital Plan, there will be substantial investment in providing high-speed broadband connectivity to rural Ireland, where commercial investment is not forthcoming. The precise level of this investment will be determined in 2016 following the outcome of a competitive tender process. Implementation of the NBP, through a combination of commercial and State investment, will help to consolidate Ireland's leading position as a destination for foreign direct investment and transform the international trading capacity of the indigenous SME sector. It will also deliver benefits across society in areas like education, health, farming and tourism.

An initial allocation of €275 million of Exchequer funding has been provided to the NBP as part of the first six years of an envisaged 20 year contract. While it is expected that the network will be built between 2016 and 2020, the overall funding will be spread over 20 years and this envelope represents a proportion of that funding. The full 20 year funding profile will be apparent after the competitive tender process, and estimates will not be published in advance of that process.

Another significant development during the course of the Capital Plan will be the creation of the Connectivity Fund, which is being formed from the proceeds of the sale of the Government's shareholding in Aer Lingus. The Fund will operate on a commercial basis, providing support for commercial investment projects with a connectivity theme, including both domestic and international connectivity.¹⁶

Other Areas

There will also be a significant level of investment across a number of other Departments under the Capital Plan. The Department of Defence is allocated €437 million in support of its recently published White Paper on Defence, which identified investment priorities for the Defence Forces, which will ensure replacement of defensive equipment across the Army, Naval Service and Air Corps. There is €136 million for the Department of Children and Youth Affairs, with €81 million for Tusla for additional special care capacity and other requirements and €55 million to complete the youth justice project at Oberstown and to invest in Early Years and Youth programmes. Finally, there will be investment in ICT infrastructure across a number of Government Departments, including in an online passport service, Social Protection, and Revenue tax collection and fraud detection systems.

¹⁶ See Chapter 4 for further information.

National Broadband Plan – Connecting Communities

The Government recognises that reliable, high speed broadband is an essential 21st century utility, and under the National Broadband Plan it will deliver on its commitment to provide high speed broadband to all parts of Ireland between now and 2020. This will benefit households, businesses, farming, health, tourism, education and the quality of and access to key public services.

Government has already been working closely with industry to accelerate commercial investment, with high speed services now available to almost 1.3 million addresses across Ireland, which is over half of the country. Around 1.6 million homes and businesses will be served with high-speed broadband access by the end of 2016. It is expected that 85 percent of Ireland's 2.3 million homes and businesses will be covered by 2018.

The National Broadband Plan recognises that industry investment will not deliver high speed broadband to every part of Ireland, and the Government has therefore committed to give financial support to make this happen. A detailed implementation strategy was published in July 2015

Broader Regional Impact

The Exchequer will provide €5 million in 2016 through the Department of Environment, Community and Local Government as part of a new €30 million investment in rural towns and villages. The new scheme will support the revitalisation of rural towns and villages with the aim of improving the living and working environment in rural communities and enhancing their potential to support increased economic activity into the future.

Included within this allocation is €1 million each year in 2016 and 2017 to establish a Strategic Regional Development Office in the Western Region under the Western Development

Commission (WDC). This will co-ordinate the implementation of recommendations of the Commission for the Economic Development of Rural Areas (CEDRA) in the region. This will be a pilot initiative and, if successful, could be replicated in other regions.

The Exchequer funding outlined in this Chapter and allocated to enhance such things as transport, urban regeneration, tourism and housing will be supplemented by EU funding from the European Regional Development Fund (ERDF) and own-resource investment by local authorities. This will serve to deliver even higher levels of investment in the regions than is evident from a narrow focus on Exchequer spending.

The Government is committed to the further development of the Irish Maritime Energy Resource Cluster (IMERC) in Cork, which supports jobs and urban renewal and regeneration in the area. Detailed proposals for a number of individual component projects are being finalised and will be supported under this Plan.

There are also proposals to develop and regenerate Waterford City North Quays to support jobs and tourism in the region. Support will be provided under this Exchequer Programme for this development when details are finalised.

Supporting North-South Development

Predicated on a stable political environment in the North, with all of the institutions and cross-border agencies operating to full effect, the Irish Government remains committed to investing in infrastructure to support North-South cooperation to help unlock the full potential of the island economy. Targeted investment in cross border economic infrastructure will be key to the continued growth of the island's indigenous enterprise base and to driving and sustaining overseas investment levels. This is crucial for job creation and all-island prosperity and to ensure that the socio-economic dividend made possible by the Good Friday and subsequent Agreements is fully realised.

The Irish Government reaffirms its support for the EU PEACE and INTERREG programmes and will continue to work closely with the Northern Ireland Executive to ensure that funding opportunities are maximised under these EU programmes. Almost half a billion euro will be available from EU sources during the period of this Plan, 2016 to 2021. In addition, there will be renewed focus on investing in a number of the key transport corridors,

including ongoing review of the scope for building on the current commitment to the A5 road project, which is of major strategic importance to the North-West; and the Dublin-Belfast rail line, critical to the development of the Dublin-Belfast corridor and which is currently in receipt of an €18 million upgrade package. The Government remains committed to the concept of the Narrow Water Bridge, which would provide a valuable North-South link between counties Louth and Down with potential to provide jobs and a significant boost to tourism in the area. The Government will also continue to explore the development of further cross-border Greenways and Blueway cycling/walking/water leisure routes including the Ulster Canal. As part of the Mid Term Review of the Capital Plan, the Government will work with the Northern Ireland Executive to seek agreement on a funding plan for the Atlantic Youth Trust initiative, which This proposal involves a new sail training vessel to facilitate youth development, mentoring, and training on an all-island basis.

Finally, there will continue to be a significant cross-border dimension to the flood relief investment programme outlined earlier, and also in the energy and communications sectors, which already have high levels of cross-border integration. The Government will also continue to explore capital investment in health projects and services that benefit the border region.

Finally, there will continue to be a significant cross-border dimension to the flood relief investment programme, as detailed [page reference to OPW section], and also in the energy and communications sectors, which already have high levels of cross-border integration. The Government will also continue to explore capital investment in health projects and services that benefit the border region.

4. Non-Exchequer Investment

In addition to conventional direct Exchequer expenditure, on which the Government's proposals are set out in Chapter 3, there are other State initiatives and funding channels that facilitate the delivery of critical national infrastructure, including Public Private Partnerships (PPPs) and investments made by the commercial State sector.

Third Phase of Public Private Partnerships (PPPs)

Since the commencement of PPPs in Ireland in the late 1990s, almost €6 billion worth of public infrastructure projects have been delivered using the PPP approach, most notably large sections of the country's inter-urban motorway network and new primary and secondary schools. After a number of years of slowdown of PPP investments owing to the crisis in world financial markets from 2008 onwards and Ireland's own economic and fiscal difficulties, in 2012 the Government launched a new PPP programme with a €1.4 billion pipeline of projects comprising schools, third level education facilities, courts, primary care centres and roads. A €300 million second phase of the PPP programme was announced in 2014 to deliver social housing. Building on this, the Government is now supporting development of a third phase of the PPP programme, with a further €500 million worth of projects to provide new third level education facilities, a new courts complex, and new Garda stations.

The decision to expand the PPP programme further is taken against the backdrop of a much improved funding market for Irish infrastructure projects. Ireland's exit from the EU/IMF programme, continuing improvements in the economy generally and the successive upgrades of the Irish sovereign by the credit rating agencies, together with a good pipeline of projects, has firmly put Ireland back in the project finance markets. An increased levels of market interest in

financing Irish projects has also had the effect of lowering the cost of finance. These are positive developments.

PPPs involve contractual arrangements between the public and private sector to deliver infrastructure or services that were traditionally provided directly by the public sector. Under the arrangements, infrastructure is delivered by a private sector firm and, following construction, the asset is made available for public use. The State pays an annual unitary payment to the PPP company over an extended period, typically 25-30 years. At the end of the contract period, the asset comes into State ownership but in the meantime the PPP is regarded as 'off balance sheet' when calculating the deficit from the perspective of the Fiscal Rules and adhering to the Stability and Growth Pact. This means that the initial capital cost of the project does not impact on the public finances over the construction period, but rather its cost is spread over the lifetime of the project. Provided all other value for money requirements are met, this can make PPPs an attractive proposition, particularly given our fiscal constraints.

It is of course important to understand the extent of the future payments that have already been committed under the PPP programme. The table below sets out an estimate of the total annual cost of unitary payments that will fall due on all existing and planned PPP projects out to 2021.

Table 8: Expected Annual PPP Unitary Payments, € million

	2015	2016	2017	2018	2019	2020	2021
Existing PPPs	225	220	215	200	200	200	200
PPPs in development		5	45	120	155	175	180
Total	225	225	260	320	355	375	380

Looking beyond the 2021 horizon, the Exchequer will be committed to paying an average of over €360 million per annum (indexed for inflation) in PPP unitary payments between 2022 and 2035, followed by an average of about €280 million per annum from 2036 until 2042. It will be a further 10 years (2052) before all payments due under these PPP commitments are made in full. This is a considerable ongoing financial commitment that will absorb a significant amount of the Government's discretionary capital expenditure allocation for each of these years.

To ensure that PPP investments are affordable and sustainable over the medium to long term the aggregate level of annual expenditure on PPP unitary payments is to be capped relative to the Exchequer capital envelope, which will see the total cost of PPPs, including up-front direct Exchequer costs, being limited to 10 percent of total annual Exchequer capital spending. The purpose of this is to strike a balance between an appropriate level of investment using PPPs and ensuring that such investment is affordable and sustainable over the medium to long term. It will support the continued prudent use of PPP to augment the level of capital that can be procured directly by the Exchequer, while guarding against committing an undue level of future Exchequer funds to pay for assets in use now.

Wider State Sector

Over the period of the Capital Plan, the wider State-sector will invest in the order of €14½ billion. This will primarily be delivered by the commercial State sector, which plans to invest almost €12 billion in core national infrastructure for energy, telecommunications and water. In addition, non-Exchequer investment by the non-commercial State bodies in areas such as enterprise development and housing will be some € 2½ billion.

Investment in national energy infrastructure is critical to ensuring the continuous supply of affordable and safe electricity and gas to homes and businesses throughout the country. These are core services that impact greatly on quality of life for people and on the cost base and productivity of businesses. Investment in these sectors is expensive and can often be taken for granted. Whilst overall generation capacity is sufficient for the economy into the medium term, the requirement to meet targets in the renewable energy area is driving demand for additional renewable energy capacity, especially wind, to meet our 40 percent renewable electricity target.

There will be around €5¾ billion invested during the course of the Capital Plan in energy transmission and distribution networks, renewable

and conventional power generation, and smart metering by ESB, Ervia (formerly Bord Gáis Éireann), Bord na Móna, and EirGrid. The key projects to be delivered between now and 2021 include:

- North-South Transmission Line – to add a second electricity interconnector between Ireland and Northern Ireland
- Smart Metering – to upgrade energy meters to allow consumers to monitor their energy use
- Grid Link and Grid West – to increase the grid capacity and secure electricity supply to the south and east of Ireland and the west of Ireland, respectively.

Irish Water plans to invest €4 billion over the period 2016-2021. This very significant level of investment is targeted at addressing the major deficits in drinking water quality and capacity,

wastewater quality and capacity, and repairing much of the infrastructure that is in most need of investment, including removing lead piping from the public network. The company is proposing to spend €150 million to accelerate network leakage reduction, with the long-term objective of halving public and customer side leakage. Irish Water will also prioritise projects to support industrial development and address bottlenecks to facilitate new housing. The major projects that will be progressed include: Cork Lower Harbour Main Drainage Project; Eastern and Midlands Water Supply; and Greater Dublin Drainage, as well as a large number of smaller projects.

There will also be investment of around €2 billion by the other commercial State companies, primarily in airports, ports, public transport, forestry and biomass.

North-South 400kV Interconnection Development

A second interconnector is planned to supplement the single electricity interconnector between Ireland and Northern Ireland, connecting the two electricity networks EirGrid and SONI (System Operator for Northern Ireland).

Interconnection of electricity networks between North and South bring benefits including costs savings for electricity customers, a more reliable energy supply, reducing the risk of shortages, and a more efficient energy network, with greater connection of wind generation which will help achieve Ireland's renewable energy targets. The new high capacity interconnector will bring benefits to residents and businesses on both sides of the border.

EirGrid made a formal application for planning to An Bord Pleanála in June 2015, with a determination expected in Q2 2016.

The National Smart Metering Programme

The National Smart Metering Programme uses cutting edge technology to empower consumers by communicating to the customer and the energy provider a view of actual energy usage. The programme is central to the strategy to manage energy demand, deliver smart networks and enable greater energy efficiency.

Major technology and user trials have shown a national rollout of Smart Meters could lead to significant reductions in overall electricity and gas consumption, as well as a 9 percent reduction in peak-time electricity consumption. A national roll-out of Smart Meters will lead to: lower customer bills; greater customer information and choice; lower CO₂ and other polluting emissions; and environmental benefits for Ireland.

The Commission for Energy Regulation (CER) is currently developing the National Smart Metering Programme to facilitate meeting the EU target that 80 percent of residential consumers have electricity smart meters by 2020. The public consultation and appraisal phases of the project are underway.

Innovations in Funding

There are a number of new funding mechanisms at national and EU level that now provide additional sources of competitive loan financing for capital projects. These serve to complement other more long established sources of project funding in the financial markets and help address the problem of access to finance, which has been an issue over the last number of years. Some of these new funding mechanisms will support the planned public infrastructure investments under the PPP programme and by the semi-State sector. These funds are not confined to public projects. They will also invest or lend, as appropriate, to private sector projects relevant to the fund's area of interest.

Ireland Strategic Investment Fund (ISIF)

In response to the financial crisis, the Government reconfigured the former National Pensions Reserve Fund (NPRF) and converted it into the Ireland Strategic Investment Fund (ISIF) - a domestically focused sovereign development fund with a dual mandate to achieve commercial returns on its investments and to support economic activity in Ireland. The Fund has a value of around €20 billion

and aims to invest €7½ billion over the period of the Capital Plan. In addition, the Fund will be seeking to attract private sector partners, through co-investment, in order to realise a potential total investment of some €15 billion in the economy over this period. Potential areas for investment by the ISIF include energy, transport, water, housing, SME investment, and food and agriculture.

Ireland Strategic Investment Fund – Supporting residential development

The ISIF, in partnership with KKR Credit, has launched a new €500 million joint venture fund (Activate Capital). The joint venture will focus exclusively on lending to Irish residential development projects, to enable a material increase in the delivery of new housing supply. The ISIF is contributing €325 million towards the joint venture, with KKR provide the remaining €175 million.

The Fund will facilitate home-builders to develop medium/large scale housing schemes and will provide loan facilities for the purchase of land and the construction of housing. It will lend on a commercial basis to projects, providing home-building companies with cost-effective loans for up to 90 percent of the total financing requirement. The Fund is expected to be capable of financing the construction of over 11,000 new homes in Ireland.

Connectivity Fund

In May of this year, Government decided to accept the offer for its remaining shareholding of Aer Lingus. Dáil Éireann approved the sale in July and proceeds from the sale are being used to establish a new 'Connectivity Fund'. The Fund is being established as a sub-portfolio of the Ireland Strategic Investment Fund (see above), and it will operate on a commercial basis, providing support for commercial investment projects with a connectivity theme, such as the development of ports and airports. It will also be open to providing support for projects that involve a wider definition of connectivity, including, for example, data connectivity (broadband, fibre optic cables, interconnectors, etc.) and energy connectivity (energy inter-connectors and other energy related projects). These wider connectivity requirements are becoming increasingly important elements of our core infrastructure.

Strategic Housing Fund

In addition to the significant level of Exchequer and PPP investment in social housing that is planned for the coming years, the Government allocated €400 million of the proceeds from the sale of Bord Gáis Energy to set up an off-balance sheet financial vehicle – the Strategic Housing Fund – to assist Approved Housing Bodies to deliver additional housing units. The Fund may leverage additional private funding.

Extensive consultation has been undertaken with potential providers and financiers of social housing by a group established by the Minister for the Environment, Community and Local Government. This group is developing options for the use of the €400 million, including using it to leverage additional private funding to facilitate the provision of more social and/or affordable housing via the voluntary and/or private housing sectors.

National Asset Management Agency

To date the NAMA has provided over €1 billion in development funding both to improve and complete existing construction projects and advance new projects in sectors where there are potential supply shortages. A further €3 billion has been identified for investment in projects, including the delivery of 4,500 new homes in the Dublin area alone. Additionally, through intensive asset management of residential sites, NAMA will aim to ensure that additional new supply can be delivered as expeditiously as possible thereafter, particularly in Dublin.

European Fund for Strategic Investment

The European Fund for Strategic Investment (EFSI) is an initiative launched jointly by the European Investment Bank (EIB) and the European Commission to help overcome the current investment gap in the EU by mobilising private financing for strategic investments. EFSI is a €16 billion guarantee from the EU budget, complemented by an allocation of €5 billion of the EIB's own capital. Through both internal and external leverage the objective is to mobilise a total of €315 billion to address the EU's investment gap. EFSI will provide loan finance to projects.

In an Irish context, the Department of Health's PPP project involving 14 primary care centres across Ireland, including Dublin, Kilcock, Wexford, Waterford, Limerick, Westport and Boyle, was approved as one of the first projects to be supported by EFSI. EFSI support for the project has since been confirmed by the EIB with a loan of €70 million agreed that will cover up to half of the total funding requirement. There is also potential for EFSI to support a number of other Irish projects in areas such as broadband; renewable energy/energy efficiency; transport infrastructure; and support for SMEs/commercial enterprises.

5. Ensuring Delivery & Value for Money

This Chapter looks at two distinct issues that are important to the effective, timely, and value for money delivery of high quality public infrastructure under this Capital Plan. The robustness of public capital appraisal and management arrangements, and the capacity of the construction sector.

Building Evaluation Capacity and Good Practice - the Public Spending Code

The Public Spending Code, which was launched by the Department of Public Expenditure and Reform in late 2013, is now in place to ensure a comprehensive and uniform approach is taken to project appraisal and evaluation by all State bodies that are charged with delivering projects under this Capital Plan. Capital expenditure by the State will only have a positive impact on the economy and on the quality of public services if it is invested in the right projects and managed in the right way.

Chapter 3 of this report sets out the medium-term Exchequer capital allocations for the Government's investment priorities out to 2021. However, the allocation of funding alone is not sufficient to ensure that capital spending leads to the delivery of effective public infrastructure. It is also essential that individual public investment projects are carefully planned and appraised to ensure that the business cases are robust and that the right mix of projects are prioritised. The appraisal for projects must demonstrate that there is a clear net economic and/or social benefit if they are to proceed and that the recommended option is the optimum way of meeting the objective. Potential consequences of poor appraisal include cost overruns, excess or insufficient capacity, poor quality infrastructure and low returns on investment overall.

Since the last Capital Review in 2011, the expenditure framework for both capital and current expenditure has been substantially revised with the introduction of the Public Spending Code – a consolidated and refreshed set of rules and guidance.¹⁷ Under the Code, each Government Department and State Agency is responsible for ensuring that value for money appraisal and evaluation is carried out in relation to the planning, management and delivery of Government expenditure programmes and projects. In particular, the appraisal requirements now formally extend to current as well as capital expenditure. The Code prescribes what is required before expenditure is committed and, even where a Government decision has been made or there has been some public announcement regarding budgetary allocations, Departments/Agencies are still required to fully meet the Public Spending Code's appraisal requirements. Ultimately, an irrevocable commitment to a proposal such as placing a contract and/or drawing down public money should only be made after all appraisal stages have been satisfactorily passed and final approval obtained. Where necessary, Departments and State Agencies should be prepared at any stage, despite costs having been incurred (in appraising, planning and developing a project), to abandon a programme or project if continuation would not represent value for money.

¹⁷ Public Spending Code (<http://publicspendingcode.per.gov.ie/>)

The Code contains rules, procedures and guidance to ensure that expenditure appraisal and value for money standards are upheld across the Public Service. In particular, it contains guidance on conducting economic appraisal and prescribes updated values for evaluation parameters to assist practitioners in completing robust appraisals. This includes centrally set values for technical parameters such as the discount rate, the shadow price of public funds, and the shadow price of labour. It also contains some important new requirements and financial thresholds regarding the application of appraisal and evaluation:

- A reduced threshold for conducting economic appraisals, such as cost-benefit analysis or cost-effectiveness analysis, from €30 million to €20 million;
- Submission of economic appraisals for new capital and current projects to the Department of Public Expenditure and Reform for quality assurance review - this applies to all projects with a value of €20 million or greater.

As part of the implementation of the Capital Plan, any project or programme over €100 million will require specific Government approval in advance of entering into contracts. Previously, the threshold was €250 million.

It is worth noting that the purpose of an appraisal is not just to ensure that a spending proposal will deliver value for money but also to:

- Establish the appropriate scale and most cost effective implementation option for the project;
- Provide a business case which can be revisited at key stages in the life cycle of the project to ensure that the project is justified and properly managed; and
- Ensure that there is a proper baseline against which to carry out a post-project review at a later date.

Finally, under the Public Spending Code, Departments are required to develop their own sectoral appraisal guidance to facilitate the delivery of better business cases. While some sectors have a well-established track record in this area (e.g. Transport, Enterprise and the Office of Public Works), there is a clear need to formulate guidance in other areas where capital investment is being prioritised, including in Education, Justice, Environment and Health. Increasing the volume and quality of appraisals and evaluations will also help to inform the accumulation of useful benchmarks within Departments and agencies and underpin evidence based policy making in Departments.

Construction Procurement – Competitiveness and Sustainability

It is well understood that, although this Capital Plan comes against the backdrop of some recovery in the construction sector, important challenges and risks remain for that sector which is only beginning to emerge from the impact of the serious financial and capacity losses it experienced. There is still vulnerability in the sector, which is of concern to the Government both as a large procurer of construction services and from a broad economic policy perspective. A robust and sustainable construction industry is a key element of a properly functioning economy, and it is important enabler for Government in delivering quality national infrastructure. In this context, a range of reforms and actions are being implemented to help alleviate supply-side difficulties in the construction sector over the short term and improve its capacity over the medium and long term.

In the field of State procurement of construction services, the Government has introduced a wide ranging set of policy measures to encourage competition, alleviate some costs associated with tendering for public contracts and help ensure the financial stability of bidding firms. The aim is to protect the taxpayer and provide a level playing field in tender competitions. The range of steps taken by the Government include:

- Enactment of the Construction Contracts Act, 2013 which addresses poor payment practices in the industry;

- Reducing the level of the performance bond sought by public bodies, which helps increase opportunities for SMEs in construction;
- Enhancing financial appraisal, which helps in the assessment of financial stability of bidders early in the tendering process; and
- Introducing a register of building contracts to drive compliance with legislation across all players in the sector.

The Public Works Contract was introduced in 2007 to reduce the level of risk borne by the State in building and engineering contracts and protect the Exchequer and the taxpayer by curtailing cost overruns. A review of the standardised Public Works contract, including examination of the level of risk transfer required and a greater focus on quality in procurement and contracts, has been conducted. An interim report entitled *Report on the Performance of the Public Works Contract* was published in December 2014.¹⁸ It highlighted the very different circumstances faced by building contractors now after several years of declining output in the industry and the resultant, extremely competitive tendering environment. It noted the sustained growth in output evident in the sector since the second half of 2013, but it also identified the continued weakened financial capacity in the industry as a significant risk to the Exchequer's infrastructure plans.

¹⁸ Office of Government Procurement (2014) *Report on the Review of the Performance of the Public Works Contract* (<http://constructionprocurement.gov.ie/wp-content/uploads/Report-on-the-Review-of-the-Performance-of-the-Public-Works-Contract.pdf>)

In response, the Government agreed to a series of interim measures aimed at rebalancing the risk currently transferred under the contracts. These measures leave the core contract intact but rebalance the risk and provide greater visibility of the price make up of a construction project. The implementation of the majority of these interim measures is almost complete, with amended forms of contract to be introduced soon.

A broader, industry-wide consultation exercise will commence towards the end of the year with a view to making further recommendations to Government next year. This process will examine how to standardise risk analysis and management metrics, as well as conduct better performance evaluation. Different contracting strategies and a more streamlined procurement process will also be considered.

A Strategy for a Renewed Construction Sector: Construction 2020

A vibrant construction sector is a vital component in the delivery of capital infrastructure. The Government's strategy for the construction sector, *Construction 2020*, sets out a cross-government action plan to help support a sustainable construction sector over the longer term.¹⁹

Construction 2020 laid out a 75-point action plan. Among the priorities identified in the strategy are actions to improve the availability of development finance, improved regulations, innovations in Government procurement, and to ensure that appropriately-skilled workers are available as the levels of construction activity increases. One significant commitment was the publication of the new *Social Housing Strategy* outlining a plan for social housing to 2020; this strategy was published in November 2014.²⁰

The construction sector is being transformed through technology advances in materials, methods, ICT and global communications. Increasing skills through training and adopting new technology will improve productivity in the sector resulting in lower costs, better building performance and improved project delivery. Costs in the construction sector are vital for competitiveness in the industry and the wider economy, and impact on the cost of delivery of this Capital Plan.

¹⁹ Department of the Taoiseach (2014) *Construction 2020*
(http://www.taoiseach.gov.ie/eng/Publications/Publications_2014/Construction_Strategy_-_14_May_2014.pdf)

²⁰ Department of Environmental, Community and Local Government (2014) *Social Housing Strategy 2020*
(<http://www.environ.ie/en/PublicationsDocuments/FileDownload,39622,en.pdf>)

Appendix:

Labour Intensity of Public Investment

Below is a summary of a forthcoming paper by the Department of Public Expenditure and Reform (IGEES unit) that estimates the labour intensity of public investment.

The main employment benefit of public capital investment relates to the long term impacts through increases in productivity, growth and job creation. However, there are also short-run beneficial impacts from the construction/implementation phases of capital projects. Understanding the relative labour intensities of public capital expenditure in different sectors can help to verify the robustness of business cases (and their assertions about short term job creation) and allow comparison of the relative potential labour impact between different sectors.

A number of issues that should be borne in mind when considering the labour intensity of capital investment:

- By definition, capital projects are short-term and once-off, with associated jobs occurring during the construction or implementation phase of a project;
- 'Labour intensity' refers to jobs supported through the undertaking of the capital projects. It is difficult to distinguish between existing jobs that are sustained and new jobs created;
- There are variations in intensity by sector and each project can also be different and therefore actual labour intensities from one project to the next may well vary;

- The estimates presented in this analysis relate to jobs supported in Ireland only. Some sectors may have high import content and this is reflected in the estimates; and
- The labour intensities reported refer to 'job-years'. Where capital expenditure projects occur over longer time periods the job estimates for a project should be adapted to reflect the capital expenditure profile.²¹

The labour intensity estimates are based on Input-Output data from the Central Statistics Office (CSO) and other CSO data sources. The intensities reported are descriptive and are not forecasts.

²¹ Example: based on the results of this labour intensities analysis a construction project worth €10 million is estimated to support around 120 full-time equivalent job years. If the €10 million construction project takes one year to complete then it would be expected to support 120 construction jobs for the year. If the €10 million project lasts for two years then it is estimated to support around 60 construction jobs for a two-year period. In both cases the investment would be said to support 120 full-time equivalent job years.

Construction

For construction in general, the analysis estimates that for a **€1 million** increase in construction expenditure, direct and indirect employment in construction will increase by approximately **12 job years**.

There may be a moderate underestimation of construction job impacts because those who are self-employed, including sub-contractors in the construction sector, are not captured in the analysis because of technical issues with the data.

Machinery and Equipment

For non-construction capital investment, such as transport vehicles, machinery and computers, the analysis estimates that for every **€1 million** invested in capital goods, direct and indirect employment will increase by between **0.05 – 3 job years**. This reflects the typically high import content and low labour content of such expenditure.

Ancillary services, such as the repair and installation of machinery and computer consultancy, have also been examined as these will form an important element of infrastructure delivery. The analysis estimates that for every **€1 million** spent on the likes of repair and installation, direct and indirect employment will increase by **8-10 job years**.