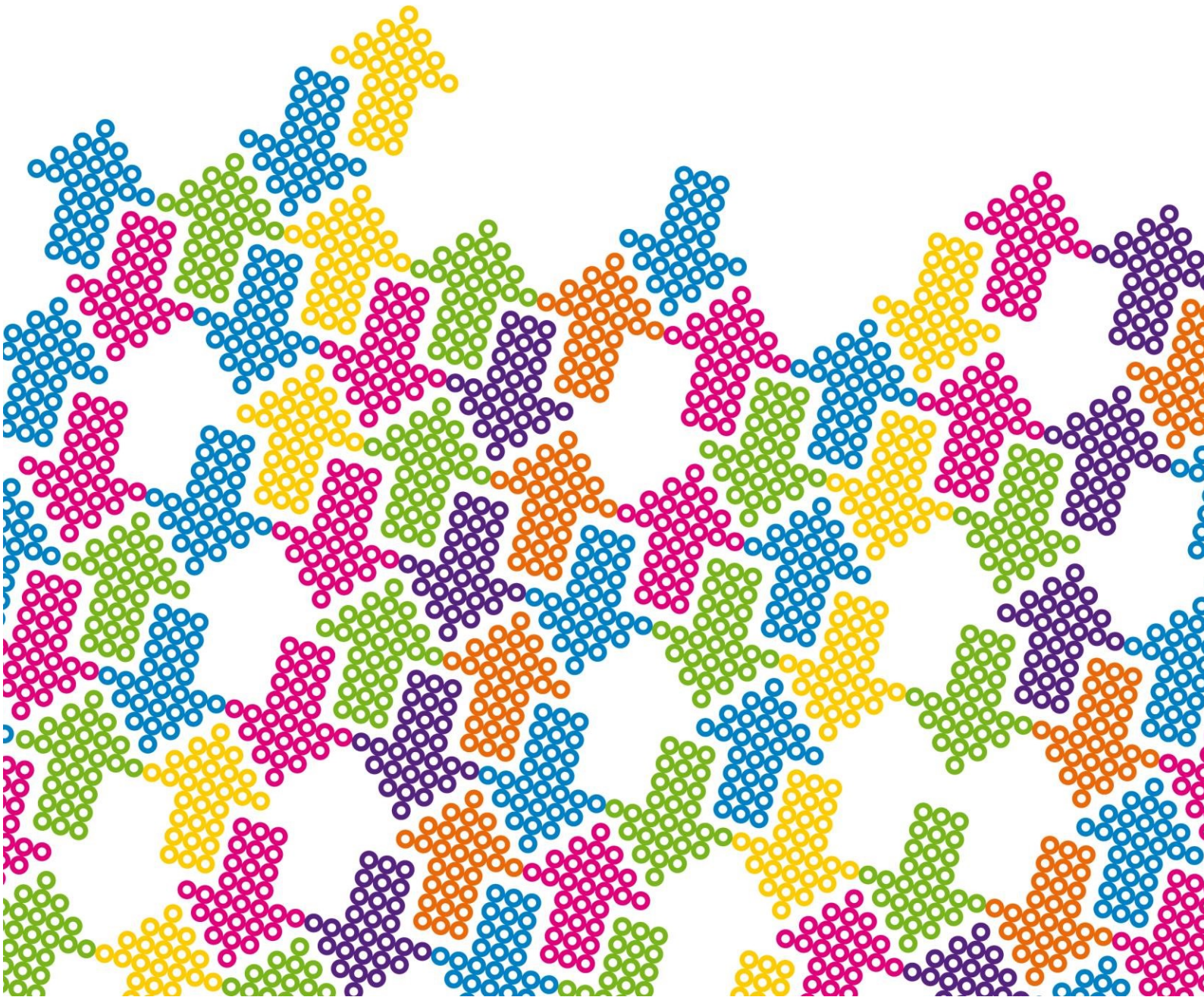




Ireland's Competitiveness Challenge 2018

December 2018



Introduction to the National Competitiveness Council

The National Competitiveness Council (NCC) reports to the Taoiseach and the Government, through the Minister for Business, Enterprise and Innovation on key competitiveness issues facing the Irish economy and offers recommendations on policy actions required to enhance Ireland's competitive position.

In accordance with the European Council recommendation of September 2016 on the establishment of National Productivity Boards by Eurozone countries, in March 2018, the Government mandated the National Competitiveness Council as the body responsible for analysing developments and policies in the field of productivity and competitiveness in Ireland.

Each year the NCC publishes two annual reports:

- Ireland's Competitiveness Scorecard provides a comprehensive statistical assessment of Ireland's competitiveness performance; and
- Ireland's Competitiveness Challenge uses this information along with the latest research to outline the main challenges to Ireland's competitiveness and the policy responses required to meet them.

As part of its work, the NCC also:

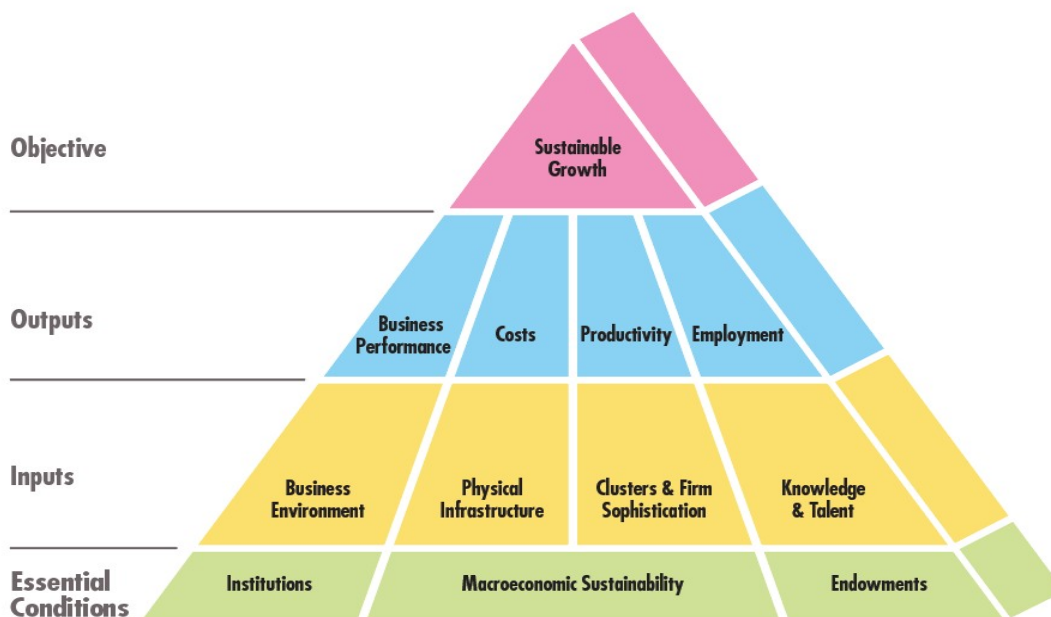
- Publishes the Costs of Doing Business where key business costs in Ireland are benchmarked against costs in competitor countries; and
- Issues competitiveness bulletins and other papers on specific competitiveness issues.

The work of the National Competitiveness Council is underpinned by research and analysis undertaken by the Strategic Policy Division of the Department of Business, Enterprise and Innovation.

The NCC's Competitiveness Framework

The Council defines national competitiveness as the ability of enterprises to compete successfully in international markets. This is a significant factor influencing economic growth, jobs, wage rates and the quality of public services. National competitiveness is determined by a diverse range of factors. The Council uses an evidence-based "competitiveness pyramid" to illustrate the various factors (essential conditions, policy inputs and outputs), which combine to determine overall competitiveness and sustainable growth. Under this framework, competitiveness is not an end in itself, but a means of achieving sustainable improvements in living standards and quality of life.

The NCC Competitiveness Framework



National Competitiveness Council Members

Professor Peter Clinch	Chair, National Competitiveness Council
Pat Beirne	Chief Executive Officer, Mergon Group
Kevin Callinan	Deputy General Secretary, IMPACT Trade Union
Micheál Collins	Assistant Professor of Social Policy, University College Dublin
Isolde Goggin	Chair, Competition and Consumer Protection Commission
Cathriona Hallahan	CEO/Managing Director (Ireland), Microsoft
David Hegarty	Assistant Secretary, Department of Business, Enterprise and Innovation
Jane Magnier	Joint Managing Director, Abbey Tours
Fergal O'Brien	Director of Policy and Chief Economist, Ibec
Seán O'Driscoll	President, Glen Dimplex Group
Margot Slattery	Country President, Sodexo Ireland
Martin Shanahan	Chief Executive, IDA Ireland
Julie Sinnamon	Chief Executive, Enterprise Ireland
Ian Talbot	Chief Executive, Chambers Ireland
Patrick Walsh	Managing Director, Dogpatch Labs
Jim Woulfe	Chief Executive, Dairygold Co-Operative Society Limited

Council Advisers

John Conlon	Department of Employment and Social Affairs
Patricia Cronin	Department of Communications, Climate Action and Environment
Kathleen Gavin	Department of Education and Skills
John McCarthy	Department of Finance
Conan McKenna	Department of Justice and Equality
David Moloney	Department of Public Expenditure and Reform
Ray O'Leary	Department of Transport, Tourism, and Sport
John Shaw	Department of the Taoiseach
Sinead McPhillips	Department of Agriculture, Food and the Marine
David Walsh	Department of Housing, Planning and Local Government

Research, Analysis and Secretariat

Marie Bourke	Department of Business, Enterprise and Innovation
Teodora Corcoran	23 Kildare Street, Dublin 2, D02 TD30
Manus O'Donnell	Tel: +353-1-631-2121
Santosh Aryal	Email: info@competitiveness.ie
	Web: www.competitiveness.ie

Taoiseach's Foreword



Today, Ireland's economy is doing well. There are now almost 2.3 million people at work, more than at any point in our history. Unemployment has fallen to 5.3 per cent, and 360,000 new jobs have been created since 2012, most of them outside of Dublin.

While we should be proud of this progress, we cannot afford to be complacent. The advantages we enjoy now will not last forever. History is littered with examples of regions that thrived economically at one time or another, but were complacent, assumed their competitive advantage would last forever, and fell into decline.

As a small open economy, Ireland has always been exposed to factors beyond our control, impacting on our ability to prosper. The global economic landscape is becoming more, not less, challenging to Ireland's growth prospects.

Brexit is the most obvious example of an external threat. While the final shape of Brexit is still not known, Ireland wants the closest possible relationship between the EU and the UK, including on trade, in order to minimise the impact on our jobs and businesses. But there will be change and we must be prepared for it. International developments in trade and taxation, rising energy prices and potentially higher interest rates, also have the potential to impact negatively on our economic well-being.

There are also vulnerabilities in our domestic economy. The rising costs of housing, transport and energy, threaten to eat into our hard-won competitive advantages. While Ireland is ranked well internationally in terms of productivity and international competitiveness, the high overall productivity figures mask underperforming firms and sectors. In recent years we have seen a growing productivity disparity between a small number of high-performing "frontier" firms and the wider economy. In addition, Ireland's trade is concentrated in a relatively narrow range of markets and sectors.

Increasing productivity is the only long-term sustainable way of increasing the standard of living for our people. We need to think about more than gross job creation, and focus more on productive, quality jobs. Therefore, there are a range of initiatives in train across Government to enhance productivity. Project Ireland 2040 has set out an ambitious programme for investment to enhance Ireland's future competitiveness, capacity for growth through building innovation capacity, modern infrastructure, enhancing our productivity and skills base and transitioning to a low carbon economy.

In addition, in July the Government agreed to develop a new and ambitious whole of Government plan to ensure our economy is well positioned for the rapidly changing global and economic environment. This initiative - Future Jobs - will be launched in early 2019. It will include concrete and ambitious actions to enhance productivity, ensure quality and sustainable jobs, and build sustainability and innovation into the economy.

The National Competitiveness Council plays an important role in highlighting the main competitiveness challenges facing Irish business and advising on policy responses required to meet them. We will reflect on the findings of this Report as we finalise priorities for the Future Jobs initiative.

I thank the Council for its important work, and I am pleased to introduce Ireland's Competitiveness Challenge 2018.

Leo Varadkar TD,

Taoiseach

Chairman's Preface



Ireland's overall economic performance indicates that we are continuing to maintain a strong competitiveness position. However, as the economy continues to grow, ensuring our model is sustainable and balanced takes on even more significance. The risks to Ireland's prosperity are increasing. International economic uncertainty and the return to protectionist trade policy in certain key global economies, along with developments in US tax policy and an evolving international tax landscape, pose a threat to our future economic growth and stability.

Domestically, a small fraction of firms provides the major part of Ireland's productivity performance, value added, exports, and corporate tax receipts, disguising the majority of under-performing firms, where productivity growth is stagnant or falling. The narrow range of exporters, products and services exported, and the reliance on a small number of export markets, also pose serious concerns.

The vulnerabilities in the fabric of the Irish economy, coupled with the challenging global environment, endanger the medium-term sustainability of our economy. It has never been more important in the economic life of our country, that the Government recognises and diagnoses these vulnerabilities, and acts now to strengthen our productivity performance and competitiveness to secure our future prosperity.

As a small open economy, the economic model of attracting foreign direct investment, in sectors where Ireland has a competitive advantage, has been in place for 60 years. This consistent commitment has allowed multinational companies to become an integral part of our economy, and to contribute very positively to employment, tax revenue, direct and indirect expenditures, knowledge transfer, enhanced productivity, and skills and management capability. Ensuring that the benefits that flow from this part of the enterprise base, particularly windfall gains for the exchequer from global capital flows, are invested wisely in the productive sectors of the economy is critical. The fruits of our remarkable success in attracting FDI will then contribute to enhancing further the competitiveness performance of the whole economy. In the context of greater global competition for investment, continuing to build a sustainable and diverse FDI portfolio in terms of sectors, activities and source markets must remain a key priority of our enterprise policy.

At the same time, the Council considers that the downside risks associated with Brexit, the potential disruption to the global trading system, and the changing international tax landscape, necessitate achieving a more balanced growth, based on increasing contributions from the indigenous sector of the economy. Broadening the enterprise and export base is key to ensuring that Ireland's economy is resilient and adaptable. Enterprise policy needs to strengthen support for Irish based enterprise, specifically SMEs, to help them increase their efforts to scale and diversify sustainably and strategically. Deepening the process of reform that supports the increased internationalisation of such businesses is imperative to reducing exposure to external economic shocks.

Narrowing the productivity gap that exists between the most productive firms and the "followers" is vital for sustainable growth, and critical to addressing the vulnerabilities in Ireland's economic model. Economy-wide productivity gains are generated when innovations are diffused and widely adopted, making the strengthening of investment in R&D, innovation and technology-diffusion mechanisms a fundamental policy priority, particularly in the light of the State's failure to invest sufficiently in R&D and innovation over the last decade. It is imperative that Government pursues a proactive policy to intensify investment in knowledge-based capital, which will enable indigenous firms to absorb, adapt and reap the full benefits of innovative technologies. Improving management quality, upskilling the workforce, and creating better conditions for thriving entrepreneurship, are key to growing productivity in smaller enterprises, allowing them to evolve into new products, services, markets and sectors. The

Council welcomes the Government's development of the Future Jobs programme, to be launched by Government in early 2019. This is an opportunity to position productivity as a central pillar of Ireland's economic policy.

The Competitiveness Challenge identifies a range of recommendations that addresses both immediate competitiveness issues, and more medium-term challenges aimed at enhancing Ireland's competitiveness and productivity performance. As in previous years, the Council has sought to strike a balance between addressing issues that are well-known, (e.g. housing, climate action and the availability of talent), with challenges that are emerging, (e.g. traffic congestion) and the combined hidden costs of proposed regulation (e.g. new water tariff regime, water abstraction, work-life balance and pension reform). Three overarching themes are considered:

- **Theme 1:** Ensuring the sustainability of the economic model
- **Theme 2:** Maintaining Cost Competitiveness
- **Theme 3:** Narrowing the productivity gap between the "best and the rest"

The Council considers that addressing the following challenges must be an urgent economic priority, for both enterprise and Government, if we are to remain competitive in the medium-term, and ensure Ireland's prosperity:

Housing: The severe shortage of available and affordable accommodation is a substantial threat to Ireland's competitiveness. While the Council acknowledges the measures introduced over the last few years to address this challenge, the problem continues to grow, and it undermines our economic development and potential. Fixing this structural vulnerability is not easy and will take time, but it is critical to avoid damaging our reputation as an attractive place in which to live, invest and locate a business.

Climate Action: We are falling considerably short in meeting our international carbon emission reduction commitments for 2020 and, if our current trajectory continues, it will bring us further away from achieving longer-term targets. To future-proof our competitiveness, it is incumbent upon the Government to step-up its efforts and make some hard decisions. These include gradually raising the carbon tax to encourage business to successfully transition to sustainable sources of energy, as well as introducing other measures that incentivise behavioural change in a cost-effective manner, allowing opportunities for people to reduce their use of carbon-intensive products and services and assisting them in energy poverty.

Infrastructure: The Government faces a significant challenge in delivering high-quality, future-proofed infrastructure projects under Project Ireland 2040, which do not contribute to overheating the economy and ensure value for money. While the Irish economy is one of the fastest growing in the world, some regions in Ireland suffer from a lack of adequate critical infrastructure. The delay in the full roll out of the National Broadband Plan across the country remains a clear, and ongoing, competitiveness concern. Reliable, high-speed broadband is essential to increase the attractiveness of regional areas for investment. Delivering improved connectivity can enhance the growth prospects of small and micro businesses and create opportunities arising on a regional basis, such as, remote working, cloud computing and business efficiencies, all of which serve to diversify the rural economy.

Given Ireland's dependence on energy imports from the UK, Brexit has exposed Ireland's vulnerability in terms of energy supply. We must now strengthen efforts to diversify our sources of energy supply to guarantee future energy security and avoid supply disruption and price volatility.

Talent: The competition for mobile talent and skills is intense, particularly for the types of skills needed to improve productivity and deepen Ireland's economic resilience. Although Ireland is ranked 5th in the world in terms of attracting and retaining talent, in the IMD World Competitiveness Yearbook 2018, increasing demand and chronic under-investment in the higher education sector is endangering our competitiveness performance. This is illustrated by the fact that not a single Irish third-level institution has been ranked in the top 100 in the latest international university rankings for 2018. A future-proofed funding model for higher education, which will guarantee a steady

output of well-educated graduates with the necessary skillsets for the evolving workplace of the 21st century, and which will ensure that Ireland stays ahead of the competitiveness curve, remains a priority.

Brexit: The uncertainty associated with Brexit and the implications in all areas of economic activity, including potential tariff and non-tariff barriers, delays associated with deterioration in land-bridge traffic, lack of adequate port capacity, security of energy supply, among many others, require urgent action to strengthen our competitiveness and productivity by addressing the weaknesses in the structure of the economy and helping our enterprise to adapt to the shift in the UK trading and regulatory environment.

The National Competitiveness Council has been reporting on Ireland's key competitiveness issues and offering recommendations to enhance Ireland's competitive position for over 20 years. Following a European Council recommendation and a subsequent Government decision, the Council has recently been appointed as Ireland's National Productivity Board, tasked with analysing developments and policies in the area of productivity and competitiveness. If the Council is to be effective in driving the national competitiveness and productivity agenda, and improve the Government response, the Council considers that a formal response by government to its recommendations is critical. This could be achieved through the Future Jobs initiative, which will be published in early 2019, or in some other way.

Strengthening the sustainability of our economic performance has acquired further prominence this year in the context of Ireland's fall of six places in the international competitiveness indices of both the Institute for Management Development and the World Bank. As the external environment is also becoming less favourable, to remain competitive we need to focus on the factors driving sustainable economic growth. Our capacity to adapt quickly in the face of significant challenges has served us well in the past and, in the current global climate of economic and political uncertainty, enhancing the agility of our economic model by improving the factors that drive competitiveness will underpin our economic future and prosperity.

Professor Peter Clinch
Chairman, National Competitiveness Council

Table of Contents

Executive Summary	11
Theme 1: Ensuring the sustainability of the economic model	15
Introduction	15
Policy Challenges and Recommendations	16
Improving the sustainability of the public finances	16
Economic Concentration	18
Concentration in Export Markets	18
Concentration in Export Products and Services	19
Corporation Tax Concentration	20
Enhancing and Diversifying Ireland's Export Base	21
Supporting internationalisation and market diversification	21
Reaping the benefits of trade	23
The export and import challenge of Brexit	24
Product Diversification	26
Inward Investment	27
Sustainable taxation system to support enterprise and competitiveness	28
Capital Gains Tax	28
Start-up tax relief	28
Employment and Investment Incentive (EII)	28
Foreign Earnings Deduction (FED)	29
Special Assignee Relief (SARP)	29
Key Employee Engagement Programme (KEEP)	30
Corporation Tax	30
Broadening the tax base	31
Value Added Tax (VAT)	32
Property Tax	32
Ensuring a sustainable workforce for inclusive economic growth	32
Increasing labour market participation rates	32
Replacement Rates	33
Realising the potential of the unemployed	34
Developing the potential of those excluded from the labour force	36
Addressing the barriers faced by returning emigrants and those who wish to relocate to Ireland	38
EEA potential labour force and employment permits	39
Ensuring sustainable pension provision for those retiring from the labour force	39
Climate Action	41
Carbon Tax	43
Legislative and policy developments	43

Compliance Costs	44
National Mitigation Plan	45
Theme 2: Maintaining Cost Competitiveness	46
Introduction	46
Policy Challenges and Recommendations	47
Labour Costs	47
The National Minimum Wage	48
Housing	49
Residential Property Prices	49
Construction Costs (Residential)	51
Residential Rents	53
Commercial property	55
Energy Costs	56
Water	59
Regulation Costs	61
Work Life Balance Proposals	61
Paid Parental Leave	63
Legal Costs	64
Brexit related regulatory costs	67
Insurance Costs	67
Cost of Insurance Working Group	68
Personal Injuries Commission	69
Personal Injuries Assessment Board (Amendment) (No. 2) Bill 2018	70
The Book of Quantum	70
Access to Finance	71
Strategic Banking Corporation of Ireland (SBCI)	75
Credit Guarantee Scheme (CGS)	75
Brexit Loan Scheme	76
Future Growth Loan Scheme	76
Business Finance Advisory Hub	76
Seed & Venture Capital Scheme (SVC)	77
Financial innovation and regulation	77
Childcare Cost	77
Theme 3: Narrowing the productivity gap between the “best and the rest”	80
Introduction	80
Policy Challenges and Recommendations	81
Narrowing the Productivity gap	81
Productivity Policy Framework	83

Future Jobs 2019	83
National Productivity Boards	84
Productivity Data	84
Supports for Innovation and Investment in Knowledge Based Capital	85
Public and private Investment in Innovation	85
Supporting Firm Level Investment in Innovation	87
Investment in Knowledge Based Capital (KBC)	89
Productivity Enhancing Supports	90
Collaboration for Innovation and Productivity	91
Global Value Chains and Strengthening innovation linkages	94
Supporting Entrepreneurship and Start-ups	95
Driving productivity by improving management practices	99
Building and Sustaining Talent for the Future	101
Higher Education	101
Output of Science and Technology Researchers	103
National Training Fund	103
Ensuring Ireland’s workforce is prepared for the workplace of the future	105
ICT Skills	106
Responding to the skill needs arising from Brexit	108
Language Skills and Cultural Awareness	109
Lifelong Learning	111
Apprenticeships	112
Infrastructure	113
Transport Infrastructure	115
Land Transport	115
Air Transport	117
Ports	118
Telecommunications	120
Energy	121
Digital Economy	124

Executive Summary

Background

The competitiveness of Ireland's economy, and the firms within it, determines export performance, jobs and wage rates, incomes, the quality of public services and, overall, our ability to improve the quality of life of people living in Ireland. National competitiveness is determined by a diverse range of factors, essential conditions and policy inputs (including education and training, innovation, clusters and firm sophistication), as well as Ireland's economic and technological infrastructure and its business environment (including entrepreneurship, taxation and regulation). Despite remaining the fastest growing EU economy for the fourth year in a row, the sustainability of Ireland's growth trajectory is under considerable threat. The return, internationally, to protectionist policies, the potential disruptions to the global trading system, the changing international tax landscape and, of course, Brexit, pose risks for Ireland's economic model. Against the backdrop of global risks, over which we have limited control, it remains critical that Ireland addresses economic challenges that are within our control. We set out this year's Challenge according to three main themes which involve:

1. Improving the resilience of the Irish economy against potential future shocks, and ensuring the sustainability of Ireland's economic model, requires stable public finances, reduced debt levels, competitive public services, the diversification of our enterprise and export base, and ensuring that windfall gains from the exchequer are invested wisely in the future productive capacity of the economy.
2. Maintaining cost-competitiveness is critical to the overall competitiveness of Irish firms and to maintain the virtuous circle between the cost of living, productivity growth and wage rates. Ireland's price profile is described as high cost and rising, with particularly acute problems in specific areas, for example, property, business services and the cost of credit. Emerging infrastructural deficits, most notably, the shortage of housing and rising traffic congestion, is damaging Ireland's attractiveness as a location to work and invest.
3. Narrowing the productivity gap between the small percentage of leading companies in Ireland, many of which are foreign-owned, and the 'followers' will require a major effort to help indigenous firms invest in innovation, obtain the necessary management talent and in-company training and, ultimately, grow and diversify into new markets. While the multinational sector must remain a key pillar of the Irish economy, it is critical that productivity levels are enhanced across all firm-types.

These overarching themes of the 2018 Competitiveness Challenge Report, and several critical challenges and areas for further improvement, are summarised below.

Theme 1: Ensuring the sustainability of the economic model

- Stable and **sustainable public finances** are a prerequisite for competitiveness. To enhance the resilience of Ireland's economy, the Government must continue its efforts to reduce the debt and deficit levels, (currently public debt stands at €42,000 per person, up from €11,000 in 2007) and avoid any narrowing of the tax base. From a competitiveness perspective, it is essential that the **taxation system** is broad and balanced in a way that supports both indigenous and foreign enterprises, rewards investment and entrepreneurship and encourages people to take up employment.
- The **concentrated nature** of the Irish economy, reflected in the reliance on a small number of companies delivering our productivity performance, a small number of export markets and a narrow range of exported products and services, necessitates achieving a more balanced growth based on increasing contributions from the indigenous sector of the economy. Broadening the enterprise and export base by strengthening support for indigenous business to scale and internationalise is of crucial importance. In parallel, it is equally important to continue building a sustainable and diverse FDI portfolio in terms of sectors, activities and source markets.

- The cornerstone of Ireland’s successful economic growth has been to attract highly-productive multinational enterprises. Foreign-owned enterprises now represent 2 per cent of all enterprises but they account for 63 per cent of gross value added and 22 per cent of all persons engaged in work. Although concentration occurs in many developed countries, it is particularly intense for Ireland with the highly globalised nature of the economy, and the concentration of value-added in a small percentage of firms, resulting in unpredictable capital flows and corporate tax returns. So far this has been to Ireland’s benefit and it is critical that Ireland continues to provide a supportive environment for multinational enterprises to ensure strong economic performance. However, it is also critical that **windfall gains are invested wisely** to support the resilience of the economy as well as to invest in the economic infrastructure required to enhance Ireland’s future competitiveness.
- In an economy approaching full capacity, creating conditions for **increasing participation rates**, and attracting and retaining talent from abroad, are vital to manage immediate and future growth prospects. Mobilising the potential of the unemployed and encouraging labour-market participation of those excluded from the labour force is, not only, beneficial for economic growth, but also, for inclusivity, more generally, contributing to a more sustainable economic model. Addressing the barriers faced by returning emigrants and those who wish to relocate to Ireland and ensuring that our economic migration/employment permit system is fit to respond to changing skills needs will help alleviate labour cost pressure and increase the availability of talent.
- Ireland is not projected to meet its 2020 emissions reduction targets nor are we on the right trajectory to meet longer-term EU and national emission reduction commitments in respect of **climate change** which could result in significant compliance costs. A step-change in addressing these issues is urgently required if Ireland is to remain competitive in the period ahead. Supporting Irish enterprise to increase its energy efficiency and to deliver energy solutions to contribute to the achievement of the renewable energy targets remains vital. Implementing gradual increases in the carbon tax alongside cost-effective actions and policies that induce behavioural change are crucial if Ireland is to live-up to its international obligations.

Theme 2: Maintaining Cost Competitiveness

- As a small open economy, **cost competitiveness** is a major factor in ensuring that Ireland’s overall competitiveness performance is strong in an international context, that the growth of the economy is sustainable and that Ireland remains an attractive location in which to do business. The Council’s Costs of Doing Business in Ireland 2018 Report indicates that Ireland remains a relatively expensive location in which to do business. Ireland’s price profile is described as “high cost and rising”. Strong economic growth has resulted in a series of upward cost pressures. Increases in property, business services and energy prices have the potential to undermine recent competitiveness gains. The cost of credit continues to remain relatively high, particularly for SMEs. The Council welcomes measures, such as the Future Growth Loan Scheme, for SMEs and the agriculture and food sector, focussing on improving the cost competitiveness of enterprise. It considers that increasing competition in the lending market and further diversifying enterprise funding models remain key medium-term challenges.
- The state of the **housing market** is a major impediment to attracting talent and investment and improving Ireland’s competitiveness performance and the quality of life of its citizens. The urgency and scale of the housing challenge and the complexity of the market require not only providing sufficient funding but also deploying innovative solutions and interventions by the State.
- A number of Government initiatives, such as proposals on a new water tariff regime, water abstraction, work-life balance and pension reform, although timely and necessary for future proofing the sustainability of our economic model, have the potential to increase the **administrative and financial burden on business**. In

progressing these initiatives, it is important that the administrative and regulatory burden is considered, and streamlined, efficient, and transparent processes are in place to minimise the potential negative effect on business. Where appropriate, a properly-phased time-scale for the introduction of new regimes, and certainty on price changes are critical to allow enterprises to adjust.

Theme 3: Narrowing the productivity gap between the “best and the rest”

- Ireland’s strong overall **productivity** performance is heavily influenced by a small cohort of enterprises which disguises, to a degree, underperforming sectors and boosts Ireland’s productivity levels. There is considerable heterogeneity in labour productivity growth across economic sectors and between firms within sectors. Increasing investment in knowledge-based capital (e.g. intellectual property, software, organisational changes, training and design) is vital in bridging the productivity gap that exists between the most productive firms and lagging firms and for achieving sustainable growth prospects in the indigenous sector. The Council is concerned that the decline in research intensity in recent years poses a threat to securing higher productivity growth in the future. There is further scope for establishing deeper linkages between the indigenous and foreign sectors as a means of boosting diffusion of knowledge and technology and therefore increasing the competitiveness and productivity of indigenous firms. Fostering extensive collaboration in research between third level institutions and industry is also an important element for building the absorptive capacity of indigenous companies to achieve sophistication and scale to avail of productivity spillovers.
- The presence of a **talent** pipeline combining knowledge and skills is key in improving Ireland’s productivity performance. Increasingly companies prioritise the availability of skills when establishing and further developing their base of operations. A skilled workforce is also fundamental to the internationalisation of the exporting indigenous enterprise. The growing demands on Higher Education and the persistent under-resourcing of the sector are placing Ireland at a considerable disadvantage internationally. Reforming the funding model to address capacity issues and ensure high-quality of graduate output and better alignment with enterprise needs also remains crucial. Against the backdrop of an accelerating rate of digitalisation in the workplace, the State and business have a key task to equip more than half of the population with at least basic digital skills. These include low skilled workers at risk of displacement by changing technology, who will require supports to retrain and upskill. Enhancing the apprenticeship system and the foreign language capability of the workforce, along with investing in lifelong education and training, are important for ensuring Ireland’s long-term competitiveness. The issue of ICT skills shortages and skills needs arising in the context of Brexit (particularly skills associated with facilitation of trade and movement of products across international borders and diversification into new markets) must be addressed. Continued economic growth, demographic pressures and an under-investment in the last decade means that Irish **infrastructure** continues to lag its main competitors. The Council considers that the Government faces a critical challenge to deliver effectively-connected infrastructure projects, under Project Ireland 2040, that drive future productivity growth and maximise returns on investment while at the same time avoid overheating the economy and ensure value for money. Of concern is the simultaneous low-productivity levels and high-demand for housing in the construction sector. The Council is concerned that the delay in fully rolling out the National Broadband Plan prevents unlocking new opportunities for entrepreneurship and delivering improved productivity performance of the rural communities.
- Transforming Ireland into a leading **digital economy** requires an integrated approach, across the many stakeholders, in delivering the Digital Single Market Strategy and producing and implementing an ambitious, future-proofed and target-based National Digital Strategy.
- **Brexit** remains the single biggest, and most immediate threat, to Ireland’s economy. The far-reaching implications of Brexit for Irish competitiveness have been the subject of a number of recent studies, including

impacts at macro-economic, trade and sector-specific levels, skills and household budgets. The WTO Brexit Scenario of the Copenhagen study suggest that, by 2030, Ireland's GDP could be 7 per cent lower than if Brexit had not happened, while ESRI research indicates that Brexit could cause a potential increase in the level of the CPI (inflation) of between 2 and 3.1 per cent. The challenges posed by Brexit cut across all competitiveness considerations so are considered throughout this Competitiveness Challenge document.

A range of policy challenges and recommendations for consideration by Government are presented according to the themes outlined above. The specifics of the challenges and recommendations set out in this year's report range from detailed to more principle-based actions. In some cases, the recommendations address the need to complete or expedite ongoing work or to implement existing strategies. Others set out the case for strategies to be developed.

In finalising this report, the Council is cognisant of the parallel development of the new Future Jobs 2019 Programme, which focusses on strengthening the resilience and productivity performance of Ireland's enterprise sector. Bearing this in mind, the Council will highlight those actions in this year's Competitiveness Challenge which it considers should be prioritised for inclusion in Future Jobs 2019 in a separate submission.

Theme 1: Ensuring the sustainability of the economic model

Introduction

In 2017 Ireland remained the fastest growing economy in the EU and strong economic growth continued into 2018. GDP increased by 7.2 per cent. The exporting sectors of the economy, supported by the enterprise agencies, performed strongly and foreign direct investment and productivity growth contributed to improved competitiveness performance. Ireland's strong economic performance was underpinned by robust domestic economic activity, including in manufacturing, construction and accommodation & food services. With strong employment growth, unemployment continues to fall and tax revenues remain buoyant. However, the sustainability of Ireland's growth trajectory is threatened by a number of factors both external and domestic.

The 2018 Globalization Report¹ ranks Ireland as the most globalised European economy. The open nature of the economy makes Ireland particularly vulnerable to potential negative external shocks. Several international developments, such as the return to protectionist policies and the potential disruptions to the global trading system, pose risks to growth. The OECD's interim economic outlook of September 2018 suggests that global risks are intensifying and uncertainty is becoming widespread. Due to a rise in protectionisms, global trade growth has slowed and export orders have worsened. An escalation in trade restrictions has the potential to harm investment, jobs and living standards. The Council is concerned that as the US is one of Ireland's main export markets, the shift in US trade policy, along with the evolving international tax landscape could also have significant impacts on growth in Ireland.

Brexit remains the single biggest, and most immediate external threat.

- The Copenhagen Economics study² published in February 2018, considered a range of possible Brexit scenarios and their impact on Ireland's economy. The study shows that all Brexit scenarios have a negative impact resulting in a lower growth rate than a non-Brexit scenario. The World Trade Organisation (WTO) scenario produced particularly negative results, indicating that while the economy is still projected to grow, by 2030, GDP is expected to be 7 per cent lower than would otherwise have been the case. The least harmful European Economic Area (EEA) -like scenario, shows a GDP in 2030 being 2.8 per cent lower than if Brexit had not happened.
- The Central Bank's simulations based on a Brexit agreement along the proposals for a future relationship with the EU contained in the UK Government's White Paper "The Future Relationship between the United Kingdom and the European Union" show that the level of Irish GDP would be around 1.7 per cent lower in the long run compared to a soft-Brexit baseline. The simulation suggests that a future trading relationship would have a significant negative long-run impact on Irish output and employment. The simulation results do not fully take into account possible disruption in financial markets which could arise due to Brexit, if such disruption materialised, the impact of Brexit on the Irish economy could be even more severe.
- Research undertaken by the ESRI, and commissioned by the Competition and Consumer Protection Commission³ in 2018, assessed the potential impact of two Brexit scenarios on Irish households. The analysis found an increase in the cost of living for the average household of between €892 per annum (in a scenario where trade deal and tariffs are avoided, but there is an increase in non-tariff trade costs), and €1,360 per

¹ 2018 Globalization Report, Who benefits most from globalization? Bertelsmann Stiftung

² Copenhagen Economics, Ireland & the Impacts of Brexit: Strategic Implications for Ireland Arising from Changing EU-UK Trading Relations, February 2018

³ ESRI Special Article, Brexit and Irish Consumers, M. Lawless and E.Morgenroth, March 2018

annum (in a harder Brexit scenario with the imposition of WTO tariffs, in addition to non-tariff barriers). The increases would be unevenly distributed across households, with lower income households most affected by price rises. The actual impact will depend not only on the deal reached, but on the level of domestic competition, the availability of alternatives to particular products and consumers' responses to changes in prices.

Data from the CSO show Ireland's debt to GDP level continues to fall and that, at end-2017, Ireland's general government gross debt stood at 68 per cent of GDP. Using Modified GNI (GNI*) as an alternative measure of economic activity, it shows the debt ratio remains in excess of 110 per cent. Despite rapid improvement in its fiscal situation, Ireland is still running high levels of gross debt which limit the room for investment in public services and the scope to respond to negative economic shocks.

Our heavy dependence on the performance of a narrow base of firms and economic sectors, the narrow range of products and services exported, and the reliance on a small number of export markets also threatens the sustainability of Ireland's economic growth. Supporting the internationalisation of indigenous enterprise, any market and product diversification, while simultaneously continuing to build a sustainable and diverse FDI portfolio in terms of sectors, activities and source markets remains crucial.

Ireland's tax competitiveness relative to other jurisdictions, particularly the UK, is crucial, particularly when entrepreneurs and enterprises make decisions as to where to base their businesses. From a competitiveness perspective, it is essential that the taxation system is broad balanced in a way that supports both indigenous and multinational enterprises and rewards employment, investment and entrepreneurship.

With the labour market likely to tighten further, labour and skills shortages pose a threat to continued growth. Measures to encourage labour force participation levels and attracting and retaining talent are vital to manage immediate and future growth prospects.

Although industry continues to move towards more sustainable business practices, accelerated effort is required as Ireland is not projected to meet its 2020 emissions reduction targets nor is on the right trajectory to meet longer term EU and national emission reduction commitments.

Policy Challenges and Recommendations

Improving the sustainability of the public finances

Stable and sustainable public finances are a prerequisite for competitiveness. This requires an appropriate balancing of the need to meet our obligations under the Stability and Growth Pact and putting in place a sustainable, counter-cyclical, medium-term fiscal planning process with the need to increase capital investment to enhance competitiveness.

Domestically, despite strong GDP growth and the Government's decision to use the receipts from the sale of shares in state-owned banks to decrease public debt levels, Ireland's public debt remains high relative to historic levels and compared to competitor countries. The nominal general government gross debt as a proportion of GDP has been on a downward trajectory in recent years. In 2017 it stood at 68 per cent, down from 119.6 per cent in 2012. However, due to the globalisation effects that are disproportionately impacting the measurement of the size of the Irish economy, metrics derived from GDP have become less meaningful. The increase in GDP in 2017 was the main factor for the decrease of the debt-to-GDP ratio while nominal debt levels remained relatively stable between 2016 and 2017. The Council is concerned that expressed as a proportion of GNI*, which more accurately reflects the underlying state of the Irish economy, as it excludes the impact of multinationals' activities, the government debt remained very high at 111 per cent in 2017, signalling that Ireland is very vulnerable to the impact of potential external economic shocks. Ireland's debt per capita was over €42,000 in 2017, the highest in the EU and the third highest after Japan and US amongst the advanced global economies. In 2007, at the beginning of the economic crisis, the debt per capita was less than €11,000.

The Annual Report on Public Debt published by the Department of Finance in September 2018 indicates that the reason for the decline in debt-income ratio is the strong income growth, suggesting that Ireland is vulnerable to any significant shocks. As noted by the National Treasury Management Agency⁴ Ireland's nominal debt is still rising as we continue to borrow, resulting in a corresponding rise in the nominal public debt and limiting our ability to react to future external shocks. To improve our capacity to absorb and respond to economic shocks, the Government must continue its efforts to reduce debt and avoid any narrowing of the tax base. The Annual Report on Public Debt advises that implementing structural reforms that stimulate growth potential and reducing barriers to labour supply, increased participation and improving productivity could contribute towards reducing the burden of debt.

Improving the sustainability of the public finances is also dependent on achieving the medium term budgetary objective (MTO) of a balanced budget in structural terms in accordance with the EU fiscal rules. For Ireland this means a structural deficit of 0.5 per cent of GDP. Once achieved, the requirement is that the MTO is maintained. The Irish Fiscal Advisory Council warns that the structural deficit is not forecast to be met in either 2018 or 2019, with an estimated structural deficit of 1.2 per cent and 0.7 per cent respectively⁵.

Enhancing the resilience of Ireland's economy in the face of a number of global potential threats remains crucial. In this context, the Rainy Day Fund, announced in Budget 2018, will be capitalised with € 1.5 billion and receive annual transfers of €500 million in the next three years in order to reach €3 billion by 2021 and €8 billion over the medium term. The Fund will serve as a counter-cyclical buffer to potential external economic shocks. It is envisaged that some of the historically high levels of corporation tax will be used to capitalise the Fund.

The Council considers it imperative that an appropriate fiscal and budgetary stance consistent with the EU budgetary framework is adopted to improve Ireland's position to withstand shocks, and prevent overheating of the economy. To ensure debt is sustainable for future generations and to reduce revenue foregone on interest payments, Ireland should continue to reduce our debt levels.

The Council recognises the budgetary challenges of reducing the deficit and debt levels while at the same time ensuring fiscal policy supports sustainable growth, and facilitates sufficient public investment in productivity enhancing capital projects and critical public services.

It is important, however, that we do not loosen the fiscal discipline (i.e. unsustainable current expenditure increases, or shrinking tax ratios for example) at this stage as this would undo much of the progress achieved to date, and would have potentially significant negative implications for future competitiveness.

Recommendation: Use the window of opportunity provided by the strong economic growth to further reduce the public debt and deficit and build buffers to improve the sustainability of the public finances and the economy's ability to withstand future shocks.

Responsibility: Department of Finance

Given the low level of capital spending in the last years, built up deficiencies in infrastructure in a number of areas need to be addressed urgently. Through the National Development Plan, the Government has committed to meet Ireland's infrastructure needs by a total investment of €116 billion over the next ten years. A strong labour market approaching full capacity, coupled with the need to increase investment in infrastructure, have the potential to overstimulate the economy and diminish our competitiveness performance. It is crucial that Government policies do not contribute to

⁴ NTMA, Mid-year update for 2018

⁵ IFAC, Fiscal Assessment Report, November 2018

overheating the economy, and accordingly, the Council supports the Government's approach of budgetary policy conducted in a manner that provides for steady and sustainable increases in public expenditure over time⁶. The Government's plan⁷ to run budgetary surpluses for a number of years will enhance Ireland's ability to better prepare to absorb future economic shocks.

Recommendation: Continue addressing infrastructure deficiencies while ensuring that budgetary policies do not contribute to overheating the economy.

Responsibility: Department of Finance, Department of Public Expenditure and Reform

Economic Concentration

Despite the improvement in Ireland's relative macroeconomic indicators and the positive headline measures of economic performance, beneath the surface, there are a number of significant domestic vulnerabilities related to the concentrated nature of the economy. Our heavy dependence on the performance of a narrow base of firms and economic sectors, the narrow range of products and services exported, and the reliance on a small number of export markets pose a serious concern.

It has been well recognised that due to the economic activities of Irish-based multinationals, GDP figures in recent years do not accurately reflect Ireland's actual economic performance. In response to the need for credible growth indicators, the Modified Gross National Income (GNI*) was designed as a supplementary indicator of the level or size of the Irish economy that excluded the retained earnings of re-domiciled firms and the depreciation of categories of foreign-owned domestic capital assets, such as Intellectual Property (IP). National accounts data from the CSO show an increase of 7.2 per cent in GDP in 2017, following growth of 5.1 per cent in 2016. However, the GNI* indicator shows that growth has been more modest. The GNI* for 2017 was almost 40 per cent lower (€189.2 billion) than the Gross Domestic Product (€275.6 billion). The gap between GNI* and GDP has widened since 2016, highlighting the high share of multinational activity in Ireland. The Council is concerned that in the face of an uncertain global environment, a potential decline in the multinational footprint could undermine the sustainability of our economic model. In terms of the composition of GDP from the output side, between 2007 and 2017 industry's share of value added in Ireland increased by 23 per cent to 36.1 per cent and is now almost double the euro area level. Services contributed over 70 per cent of the euro area's total gross value-added in 2017, and are relatively low in Ireland at around 60 per cent. The relative importance of services is high in the UK (80%). Data from the Annual Business Survey of Economic Impact illustrates the gap between high value-added sectors, such as Chemicals and ICT, and other sectors of the economy. Among enterprise agency client firms, value-added per person employed in 2016 ranged from €761,000 in the Chemicals sector, €445,000 in computer programming, to €65,000 and €60,000 in agriculture and waste respectively.

Concentration in Export Markets

Data from the CSO show that goods exports totalled €122,139 million in 2017, the highest annual total on record and an increase of 2 per cent over 2016. While acknowledging this strong performance, Brexit has underlined Ireland's two significant and complex export challenges. Firstly, Irish export markets are geographically concentrated. Ireland's relatively high degree of export concentration by trading partner is reflected in our rank of 55th in the IMD's Yearbook which measures exports to top 5 countries as a percentage of total exports.

Total service exports increased by €14.7 billion, from €126.3 billion in 2015 to €141 billion in 2016. The UK, US, Germany and the Netherlands are Ireland's key trading partners. Euro area markets account for 28 per cent of services exports. The UK and US accounted for 16 per cent and 10 per cent of services exports. Exports to countries such as

⁶ Globalization Report 2018, Who benefits most from globalization?

⁷ Department of Finance, Summer Economic Statement 2018

Canada, Mexico, Switzerland, China and Japan have increased in value- and share-terms over the last five years. However, Ireland's trade performance remains heavily dependent on the EU, US and UK markets. Ireland's principal trading partners in terms of goods exports are the US (27.2%) and the UK (13.4%). In terms of EU markets, in 2017 the euro area accounted for 33 per cent of goods exports, with the Belgium, Germany, Netherlands and France the EU primary markets. While the share accounted for by these trading partners (84%) is relatively unchanged in a decade, the importance of the US market has increased. Switzerland and China account for an increased share of total exports. The UK, France, Spain and Italy account for a smaller share of goods exports compared to 2007.

Concentration in Export Products and Services

The composition and range of exports from Ireland is very dependent on a relatively narrow base of sectors and commodities. Chemicals and related products account for 55 per cent of goods exports, up from 47 per cent in 2007. Machinery and transport equipment exports account for 17 per cent, down from 25 per cent in 2007, with exports of food and live animals relatively unchanged at 10 per cent. Exports in computer services represent 47 per cent of the total export in services. Chemicals account for the largest share of exported goods to the US, UK, and the rest of the EU. The UK accounted for €14.4 billion, (12%) of total exports and is the primary destination for Food exports, accounting for 28 per cent of total food exports.

The top 15 commodities account for approximately 90 per cent of total goods exports. The significance of pharmaceuticals and chemical products is clear with these two commodity groups alone accounting for 45 per cent of exports. According to IMD, Ireland is the 50th most export diverse economy in terms of export concentration by product, which measures the top 5 export products as a percentage of total exports.

Ireland's export base, in terms of the range of products and destinations and the profile of exporters, appears relatively concentrated. CSO data show that in 2016 the top five exporters accounted for almost one-third of all goods exports. Approximately 75 per cent of total goods are exported by the top 50 exporting enterprises. Ireland's high share of total trade, accounted for by a small number of traders, is high relative to many EU Member States. Across the EU Member States, in Industry, the top five traders accounted for 21.4 per cent of total exports (in value terms) in 2016 compared to 35.7 per cent in Ireland.

Research by the ESRI⁸ shows that, like exporters across a wide range of countries, most Irish-owned goods exporters have a narrow range of products. Overall, export volumes are heavily influenced by a small cohort of large exporters with wide product and market scope. 16 per cent of Irish-owned goods exporters export just one product to one market and account for just 1.4 per cent of total export value. Over 20 per cent of Irish-owned firms export one product with almost 50 per cent exporting fewer than five. Food products account for close to half of the export value of Irish-owned exporters, and 40 per cent of firms export a single product. In 2015, one product, Meat of Bovine Animals, accounted for 23 per cent of total exports by Irish-owned enterprises. Related research suggests a similar pattern of concentration with services exports, with overall performance dominated by a relatively small number of enterprises. Irish exports, particularly indigenous SME goods-exports to the UK, tend to be concentrated in a small number of sectors and a small number of products. The principal exported goods to the UK are Meat & Meat preparations, Medical & pharmaceutical products, Organic chemicals and Dairy & Eggs. CSO data show the UK accounts for 37 per cent and 41 per cent of Food and live animals exports and imports respectively. The UK accounts for 43 per cent of exports and 36 per cent of imports in the category of manufactured goods, classified chiefly by material including products such as leather, cork and wood, textiles and rubber. This narrow base means that Irish exporters may be more vulnerable to sector-specific trade barriers or tariffs or to any other developments such as a loss of cost competitiveness which has the consequence of weakening Ireland's relative export competitiveness.

⁸ Irish enterprise exporting patterns in goods and services, 2017

In keeping with the highly-concentrated nature of Ireland's economy, as evidenced by the share of value-add, export markets and export products and services, Ireland's aggregate productivity performance is driven by few sectors and within those sectors, a small cohort of high performing firms. The productivity concentration is addressed in detail in Chapter 3.

Corporation Tax Concentration

Ireland has one of the lowest corporation tax rates of OECD member countries and corporation tax receipts accounted for 16 per cent of tax net receipts in 2017. The corporation tax as a percentage of Ireland's total tax receipts in 2016 was about 4 percentage points higher than the OECD average. The Revenue Commissioners report⁹ that following a 7 per cent year-on-year increase in 2016, in 2017 the net corporation tax receipts increased by 11.5 per cent. In 2017, the number of gross corporation tax payers increased by almost 7,000 (15%), whereas the number of net payers increased by nearly 6,300 (14%) in the same period. Nearly two-thirds of net corporation tax paid in 2017 was attributed to payments greater than €10 million. Foreign owned multinationals paid 80 per cent of the corporation tax receipts in 2017 and the proportion of corporation tax paid by the top 10 companies is 39 per cent (an increase from 37 per cent in 2016), showing a high degree of concentration. Manufacturing, Financial & Insurance and ICT sectors accounted for over 70 per cent of all net corporation tax receipts. Reflecting the large number of small and micro enterprises in the economy, three-quarters of corporation tax payers paid an amount less than or equal to €20,000. These account for slightly less than 2 per cent of total net corporation tax receipts. The Council is concerned that the ongoing US tax reform could have a negative impact on Ireland's attractiveness as a location for foreign direct investment and revenue from corporation tax receipts may decline significantly in the future. Shocks affecting any of the top 10 companies could have an impact on taxation receipts.

Revenue data show that in terms of R&D expenditure for 2016, against which tax relief is claimed, the majority of the expenditure occurred in a relatively small number of sectors which is to be expected given the nature of the tax relief, with manufacturing by far the largest. Over 70 per cent (€1.27 billion) of the R&D expenditure was incurred by foreign-owned multinational companies, with the share of the US-owned companies among the top 100 largest corporation tax payers accounting for 54 per cent of the R&D expenditure by foreign-owned companies (€690 million)¹⁰.

The analysis of the concentration issues indicates that the sustainability of Irish growth is not only threatened by the potential for boom and bust, but also by the reliance of the economy on a small number of highly productive large companies. Many Irish-owned companies export a narrow range of products and services, and rely on a small number of export markets. Ireland's exposure related to the concentration of corporation tax receipts among a very small cohort of firms also remains a serious risk in terms of the long-term sustainability of the public finances. A diversified strategy to attract and develop projects in different sectors should remain a priority of Irish enterprise policy. The approach should seek to ensure deepening national and firm level competitiveness; fostering product, service and process innovation within companies; and working with new and existing businesses to diversify their trading footprint with the world. The economic model attracting FDI in sectors where Ireland has a competitive advantage has been in place for 60 years. 60 per cent of IDA supported companies have been in Ireland for more than a decade (34% have been here for over 20 years). In addition to the positive contribution in terms of employment, tax revenue and direct/indirect expenditures, foreign-owned firms contribute in terms of knowledge transfer, enhanced productivity, higher labour skills and management capability, and provide a platform for entrepreneurship. If invested in the productive sectors of the economy, the fruits of our continued success in attracting FDI could contribute to further enhancing the competitiveness performance of the whole economy. In the context of greater global competition for

⁹ Corporation tax 2017 payment and 2016 returns, Revenue Commissioners

¹⁰ It should be noted that the figures only include companies conducting R&D where the expenditure is liable for the tax credit. Other forms of R&D may be undertaken that are not eligible for the tax credit

investment it remains important to ensure that IDA continue to build a sustainable and diverse FDI portfolio in terms of sectors, activities and source markets.

The Council considers the enterprise agencies must continue to be provided with supports through the Department of Business, Enterprise and Innovation for market development and investment. In particular, the enterprise agencies must be provided with appropriate resources to further develop investment outside of the Greater Dublin Region and resources must be effectively utilised to maximise funding for competitiveness, innovation, market development and in market trade support. Brexit means further company-led expansion into new markets and a deepening of trade links with the world's leading emerging economies is required. The Council considers that the concentrated nature of the Irish economy, the potential downside risks associated of Brexit and US tax reform, and the changing international tax landscape, necessitate achieving a more balanced growth based on increasing contributions from the indigenous sector of the economy. Broadening the enterprise and export base is key to ensuring Ireland's economy is resilient and adaptable. The Council's view is that enterprise policy needs to strengthen support for Irish based exporters, particularly SMEs to intensify their efforts to scale and diversify sustainably and strategically to reduce exposure to external economic shocks. In parallel, it is equally important to ensure the delivery of IDA's strategy on continuing to win FDI investment from a diverse range of sectors and geographic areas.

Ireland's trade performance remains heavily dependent on the EU, US and UK markets. The size and proximity of these markets mean they will always be extremely important to the Irish economy. In addition, supporting the continued internationalisation and further market diversification of Irish-owned enterprise (addressed in more details in Section *Enhancing and Diversifying Ireland's Export Base*) would contribute to making the economy more resilient to external market shocks, such as Brexit.

Enhancing and Diversifying Ireland's Export Base

Supporting internationalisation and market diversification

Enterprise Ireland reports that client exports grew by 7 per cent in 2017 reaching a record high of €22.7 billion. Exports increased by almost €10 billion between 2009 and 2017. Enterprise Ireland's 2017 results show growth across most global regions, including North America where exports grew by 7 per cent to €3.96 billion and Asia Pacific, where exports increased by 9 per cent reaching €1.97 billion. Although significantly below the 12 per cent increase recorded in 2015, prior to the Brexit Referendum, the UK continues to be the largest market for Enterprise Ireland's clients, representing 34 per cent of exports and recording a 4 per cent increase to €7.62 billion in 2017. The food sector remains particularly reliant on UK exports, although the UK share has been trending downwards and diversification to other markets has increased.

Entering new export markets presents Irish-owned enterprises with challenges in terms of their business and regulatory environment, language, income levels and distance related costs such as transport. In addition, internal obstacles such as the lack of managerial skills and qualified/experienced staff, access to appropriate finance and limited presence in foreign markets affect business's ability to internationalise. Enterprise Ireland's Strategy 2017-2020 aims to ensure Irish enterprise is well positioned to achieve greater scale and expand into new export markets and to grow exports to €26 billion by 2020. In this regard Enterprise Ireland provides significant financial, informational, contact and in-market support to overcome barriers to SME internationalisation. Brexit creates an uncertain environment in which Irish business is currently operating and to mitigate the impact of Brexit, it is crucial that Irish SMEs become more resilient and improve their competitiveness.

Acknowledging the need for a coherent approach to increasing Ireland's global influence and maximising growth opportunities, the Government launched 'Global Ireland – Ireland's Global Footprint to 2025' in 2018. Among the key ambitions of the initiative are to increase the diversification of client exports into new markets, with at least 70 per

cent of exports going beyond the UK by 2025, double the total value of Enterprise Ireland client exports outside the UK from the 2015 baseline by 2025 and double Eurozone exports by 2025.

The Council supports the initiative to double the scope and impact of Ireland's global footprint to 2025 by expanding the diplomatic missions and increasing funding for Ireland's enterprise, tourism, cultural and food agencies overseas. This will allow the Overseas Offices of the Enterprise Agencies to better identify potential export and investment opportunities and support Irish entrepreneurs with global ambition.

Recommendation: Prioritise and implement the actions which will realise the ambition to increase the diversification of client exports into new markets arising from Ireland's Global Footprint to 2025.

Responsibility: Department of Foreign Affairs and Trade, Department of Business, Enterprise and Innovation

The Council supports Enterprise Ireland's strategic approach to assisting Irish companies enhance their competitiveness and expand their global footprint. Enterprise Ireland has recently introduced a number of funding programmes to assist its clients to internationalise or improve their export performance:

- the Agile Innovation Fund is designed to help companies develop new products, processes and services for new market opportunities, enabling exporters to respond quickly and maximise export performance
- the Prepare to Export Scorecard helps emerging and potential Irish exporters to self-assess how prepared they are to start exporting. The online tool focuses on the company's level of export-readiness across six key business pillars: business planning, people management, operations, sales and marketing, innovation, and finance
- the Operational Excellence Offer focusses on helping existing Irish exporters to become more competitive by providing funding, capability building, and capital investment.

Implementation of the actions set out in Enterprise Ireland Strategy 2017-2020 should continue in order to improve the competitiveness of Irish SMEs and build their ability to internationalise.

Recommendation: Ensure that the export focused programmes are effective in markedly increasing the global footprint of Irish enterprise.

Responsibility: Enterprise Ireland, Bord Bia

The concentrated nature of Irish export markets and specifically the dependence on the UK as an export destination for Irish goods and services, means that supporting the market diversification of Irish enterprise is vital for making the economy more resilient to external market shocks, in particular Brexit. The InterTradeIreland study on Export participation and performance of firms on the island of Ireland published in 2018, shows that almost one-quarter of Irish goods exporters sell all exports into Northern Ireland, suggesting that the impact of Brexit on the number of firms trading could be disproportionately much higher than the estimates on the overall fall in trade, as many small exporters will not have the scale to cover additional costs. Enterprise Ireland's 2017-2020 Strategy focuses on increasing the Irish export footprint to markets outside the UK, thus aiming to reduce overall UK market exposure to one-third by 2020, while simultaneously assisting clients in consolidating their market positions in the UK. The Council supports Enterprise Ireland's separate market and sectoral approaches and one-to-one engagements with client companies to address the different challenges faced by Irish exporters.

A strategic ambition of Enterprise Ireland's Eurozone Strategy is to achieve a significant reorientation of client exports from the UK to the Eurozone by increasing Irish exports to the Eurozone by 50 per cent to €6.15 billion by 2020.

Various export supports by Bord Bia, including the European Private Label programme, also focus on assisting Irish exporters to further diversify their markets by increasing exports to the European market.

To accelerate the number of Enterprise Ireland's clients diversifying into new markets, over 200 missions will be undertaken in 2018, a 50 per cent increase on 2017. As Enterprise Ireland has identified the Eurozone, North America and Asia Pacific as regions representing the strongest export growth opportunities for Irish companies, most of the international trade missions will take place in these regions. Further scope for diversification in export markets could be achieved by placing emphasis on emerging markets.

An Enterprise Ireland survey which was conducted in June 2018 places Market Diversification (13% of the respondents to the survey) as the third biggest Brexit related challenge facing Irish business, therefore Enterprise Ireland's effort to diversify the Irish companies' export market portfolio remains crucial. The new Market Discovery Fund supports business of all sizes who are seeking to introduce a new product/service on an existing geographic market or penetrate a new geographic market for an existing product/service.

It is important that Enterprise Ireland conducts regular review of their overseas activity to assess if their funding is aligned to client needs and effective in supporting export growth and market diversification. Enterprise Ireland should continue to support clients through the client engagement model to sustain, grow and diversify their exports in the euro area and beyond through the provision of financial and non-financial supports.

Recommendation: Ensure that targeted supports are in place to assist largely UK focused and Brexit-exposed companies secure exports in new markets.

Responsibility: Enterprise Ireland, Bord Bia

Recommendation: Ensure market diversification programmes are effective and responsive to client needs. Provide funding for new market expansion programmes in key sectors and markets.

Responsibility: Enterprise Ireland, Tourism Ireland, Bord Bia

Recommendation: Expand Ireland's Global Agency footprint to 2025 in line with 'Global Ireland – Ireland's Global Footprint to 2025' initiative.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland, IDA Ireland, Tourism Ireland, Bord Bia

Reaping the benefits of trade

Trade agreements provide opportunities for Irish-based firms to further diversify their export markets. The Department of Business, Enterprise and Innovation has commissioned a study which will examine the economic opportunities and impacts for Ireland arising from existing and forthcoming Free Trade Agreements. This work should inform the policy framework required for Irish businesses to take full advantage of concluded trade agreements and preferential trade access, and ensure that Irish businesses are prepared to access new markets. The study will include (i) agreements in force (with S. Korea), (ii) recently concluded agreements (Canada, Japan, Mexico), and (iii) prospective agreements (New Zealand, Australia, Mercosur). It is important that sectoral impacts of trade agreements on the Irish economy, areas of export opportunity and impacts on SMEs and the labour market are assessed as part of the study.

- The EU-Canada Comprehensive Economic Trade Agreement (CETA) entered into force provisionally from the 21st September 2017. It removes tariffs on almost all key exports, provides access to the Canadian procurement market, eases regulatory barriers and ensures more transparent rules for market access. Given that the Agreement removes over 98 per cent of tariffs, it is an important tool for further market

diversification of Irish companies, particularly SMEs who are affected disproportionately by trade and regulatory barriers.

- The EU and Mexico reached a new agreement on trade, in 2018, which is part of a broader, modernised existing trade agreement. The agreement will allow 99 per cent of trade in goods to be tariff-free, including in the agricultural sector, which could significantly benefit Irish agri-food exporters. It provides for EU firms to sell more services in Mexico; simpler customs procedures will further benefit EU manufacturers, including in sectors like pharmaceuticals, machinery and transport equipment.
- The EU and Japan concluded a new Economic Partnership Agreement (EPA), in 2018. It provides for the elimination of customs duties on 97 per cent of EU goods, enhanced access to the Japanese market for beef, cheese and fisheries, and elimination of tariffs on industrial products. It also seeks to significantly reduce non-tariff barriers to trade and enhance access to procurement and services markets in Japan.
- In 2018, negotiations concluded with Singapore and Vietnam, with negotiations ongoing with Mercosur (Brazil, Argentina, Paraguay, Uruguay), Australia, New Zealand and Chile.

According to the European Commission, significant EU trade agreements, being applied in 2017, account for a third of the EU's total external trade. Once the trade agreements with Japan, Singapore and Vietnam come into effect (set for 2019), the share of EU trade benefitting from tariff cuts or other trade advantages will reach nearly 40 per cent¹¹.

We should continue to optimise Irish enterprise interests in negotiation and implementation of EU trade and investment agreements and ensure that Enterprise Ireland's supports are positioned to allow Irish enterprise benefit from these newly completed agreements. In parallel, it is essential that Ireland continues to pursue a comprehensive programme of bilateral trade missions to assist Irish companies expand their presence in existing markets and diversify into new ones. This is important to build resilience in the export base in order to combat challenges, such as, Brexit and global trade tensions. In 2018, there were over 70 Ministerial-led trade missions to markets across a variety of markets of strategic interest to Ireland, including North and South America, Europe, the Gulf Region and Asia-Pacific.

Recommendation: Assess the economic impact of existing and forthcoming EU Free Trade Agreements, particularly regarding areas of opportunity for exporting SMEs.

Responsibility: Department of Business, Enterprise and Innovation

Recommendation: Provide support to clients who are willing to avail of EU Free trade agreements, with a particular focus on companies in the agri-food sector.

Responsibility: Enterprise Ireland, Bord Bia

Recommendation: Undertake a targeted programme of trade missions to support export growth and market diversification for Irish-based firms, including market access opportunities provided through new and existing EU Free Trade Agreements.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland

The export and import challenge of Brexit

The CSO reports that around 8,600 enterprises exported goods from Ireland in 2016 and 79 per cent of these exported to the UK. Of the 6,780 firms who exported to the UK, half traded exclusively with the UK, accounting for 16 per cent

¹¹ http://trade.ec.europa.eu/doclib/docs/2018/october/tradoc_157469.pdf

of the value of goods exports to the UK. SMEs make up the large majority of enterprises exporting to the UK, at 93 per cent of the total number of UK exporters. Micro enterprises alone make up over half the number of firms exporting to the UK. Over 26,000 enterprises imported goods from the UK, 85 per cent of the total number of importing firms. For approximately 10,500 of these importers, the UK was their only trading partner and their trade was about 20 per cent of total imports from the UK. Almost two-thirds of goods imports from the UK were by SMEs, and a quarter of all UK imports was imported by micro enterprises. The high reliance on the UK as both an export and import market indicates that Irish business, particularly SMEs and microenterprises remain very vulnerable to Brexit related shocks.

Given that many imported products are used as intermediate inputs for further processing within Ireland, they also contribute to the export performance of Irish firms. ESRI research¹² noted that the effects of Brexit on Irish goods imports are of potentially considerable importance. The paper which explored the level of reliance, particularly of Irish-owned firms, on UK goods imports and the relationship between imported inputs and exports, found that more than half of imports from the UK by Irish-owned firms are intermediate inputs, with another third being food products. UK-sourced imports made a much larger contribution to exports by Irish-owned firms than to those of foreign-owned firms, which suggests that any change in import flows could have potential knock-on effects on firm export activity. In addition, ESRI signals that although the tariff rates on many of the imported intermediates discussed in the paper are lower than the average tariff, if imposed, they will increase business costs. The Council considers enterprises must continue to be provided with funding and advice for market diversification not only in exports but also in imported intermediate inputs.

Reflecting the serious challenges posed by Brexit, the Department of Business, Enterprise and Innovation and its agencies have been putting in place a range of measures to strengthen the resilience and export performance of Irish enterprise. Enterprise Ireland and the Local Enterprise Offices (LEOs) have made information and advice available to all businesses. In addition to the “Brexit-Be prepared campaign” and the Brexit SME Scorecard, nationwide Brexit Advisory Clinics provide information on the broad implications of Brexit, and advise Irish companies on the supports available through EI to help them address their Brexit exposure. The clinics include one-to-one meetings with independent experts. Customs and Logistics is the single biggest Brexit challenge facing Irish business according to an Enterprise Ireland survey conducted in June. The “Be Prepared” Grant can be used to address clients’ post-Brexit customs compliance challenges and Logistics training needs. The Brexit Mentor Programme supports LEO clients to identify key areas of exposure as a result of Brexit and assist owner / managers in developing robust strategies to address issues and maximise potential opportunities.

A recent Enterprise Ireland survey found that 85 per cent of their clients are taking Brexit related actions. The top measures implemented by companies include export market diversification, improving operational competitiveness, strengthening their business in the UK, developing strategic partnerships, improving financial management and investing in R&D. It is vital that we continue to develop the UK in-market expertise and networks to respond to client needs and to run awareness campaigns to encourage business to avail of the Brexit offering provided by Enterprise Ireland and the Local Enterprise offices.

Recommendation: Ensure the Enterprise Agencies are adequately resourced to support Irish based firms to scale internationally.

Responsibility: Department of Business, Enterprise and Innovation

¹² Lawless.M, Intermediate goods inputs and the UK content of Irish goods exports, 2018

Recommendation: Develop targeted supports for businesses impacted by Brexit, to diversify their exports to new geographic markets, and to diversify their source markets for imports of intermediate inputs from the UK.

Responsibility: Department of Business, Enterprise Ireland, IDA, Bord Bia

Product Diversification

The concentration of Ireland's exports in a small number of products and services also makes Ireland vulnerable to adverse shocks, such as developments in the global trade environment. The Council acknowledges that export concentration in fewer products may indicate that business is focusing on products where it has comparative advantage, however challenges, such as the potential implications from Brexit, give impetus to the need for Irish enterprise to evolve into new products, whilst maintaining the competitive advantages gained in existing ones. The development and adaptation of products and services to suit diverse tastes, and the change in production processes and adapting the logistics infrastructure takes time. At enterprise level, improving competitiveness and investing in R&D and innovation to achieve product diversification is vital. This suggests a continuing need to ensure that supports for firms evolve to ensure maximum impact. Enterprise2025 Renewed places importance on developing new products, services and solutions to compete effectively internationally. The Council also considers that enterprise agencies should continue to focus on a diversified strategy to attract and develop products in different sectors, particularly in areas likely to expand faster. Changes in the external environment must be continually monitored to ensure firms are well placed to take advantage of new opportunities and to mitigate any potentially negative developments.

From a competitiveness perspective Enterprise Ireland's engagement with companies in sectors and products that are exposed to the challenges of Brexit to help them identify their strengths and weakness and put in place supports to reduce their vulnerabilities remains vital. The enterprise agencies provide a range of supports and programmes for product, process or services development projects. These include:

- Agile Innovation Fund
- High Potential Start-Up Feasibility Study and Feasibility Study Grants
- An in-house Research, Development and Innovation (RD&I) Fund
- Innovation Vouchers
- An innovation Partnership Grant Programme
- Horizon 2020 and other EU Research Funding Programmes
- Innovation 4 Growth Programme.

Recommendation: Intensify the promotion of research and innovation supports to encourage product, service and process development.

Responsibility: Enterprise Ireland, IDA, Science Foundation Ireland

Recommendation: Conduct regular horizon scanning to identify emerging opportunity areas and disruptive trends, and consider re-adjusting enterprise supports to assist companies in availing of these opportunities.

Responsibility: Department of Business, Enterprise and Innovation

Inward Investment

Ireland has an established and internationally recognised track record of attracting inward investment. In a globally competitive environment for FDI, multinationals continue to invest and re-invest in Ireland. Their presence has been and remains an important factor for our positive competitiveness performance and their activities have a significant positive bearing on our economy. Foreign-owned enterprises represent 2 per cent of all enterprises, but they account for 22 per cent of all persons engaged and 63 per cent of gross value added. In Industry, they account for 42 per cent of all persons engaged and 89 per cent of value added. Non-EU foreign-owned enterprises generated 43 per cent of the value added in the Irish non-financial business economies in 2014, compared to 18 per cent in the UK and 11 per cent in the EU. Permanent full-time employment in foreign-owned companies stood at 202,703 in 2017, an increase of 5.6 per cent over the previous year. As discussed earlier, the contribution of FDI to innovation activity and taxation revenue also remains of key significance.

A number of factors, outside the control of domestic policymakers, including global tax and trade developments, threaten our continued success in attracting FDI. The global competition for inward investment is also intensifying. In addition to our traditional strengths - our talented workforce, our competitive and stable tax offering, pro-enterprise business environment and our proven track record as a home to global businesses, it is crucial to continue developing our FDI offerings, particularly regarding incentives that reward talent, encourage innovation and investment and enhance tax competitiveness. The Council considers broadening the FDI base and maintaining Ireland's competitive advantage as a location for new and existing mobile investment should continue as a cornerstone of enterprise policy. The evolving tax environment in the US and its potential implications for future investment decisions abroad by US companies brings into sharp focus the need to expand on new markets for FDI beyond Ireland's traditional trading partners. While the North American and European markets continue to be key sources of FDI, under the Global Ireland: Ireland's Global Footprint to 2025, the Government has committed to accelerate its diversification of FDI source markets and double growth in project investments from non-US markets between 2018 and 2024. Consistent, sustained in-market presence by IDA Ireland is necessary to take advantage of emerging growth opportunities across the globe. It is particularly important to examine the potential to increase investment into new sectors.

Based on the findings of the ESRI's research "Productivity spillovers from multinational activity to indigenous firms in Ireland" that there is limited evidence of a link between the presence of foreign-owned firms in the same industry and the performance of domestic firms, we need to intensify the linkages between the indigenous sector and FDI sectors as a means of boosting productivity spillovers and embedding the indigenous enterprise in global value chains.

IDA's current strategy has placed a large focus on increasing investment in regional locations and contributing to regional growth. The Council supports IDA's efforts to increase investments in all regions outside of Dublin by 30 to 40 per cent while also maintaining the high level of investment into Dublin. IDA reports that in the three and a half of the IDA's current five year Winning strategy, 344 investments were approved for regions outside Dublin compared to 346 over the full five years of IDA's previous strategy. However, FDI business prefer to locate in urban areas to avail of talent and well-developed infrastructure. In order to unlock the potential of regional locations, the Government, through the implementation of the NPF and the full roll out of the National Broadband Plan, should provide adequate infrastructure which will increase the regional attractiveness as a location for inward investment.

In the context of IDA's new strategy from 2019 onwards, more emphasis should be placed on diversifying FDI sources outside the US, increasing FDI investment in regional locations and intensifying linkages and spillovers between the foreign firms and the indigenous enterprise.

Recommendations: Place more emphasis on diversifying FDI sources outside the US, increasing FDI investment in regional locations and intensifying linkages, research collaborations and spillovers between foreign firms and indigenous enterprise in IDA's new Strategy 2020-2023.

Responsibility: IDA Ireland

Sustainable taxation system to support enterprise and competitiveness

Taxation policy has an important role in supporting indigenous enterprise development in Ireland. The taxation environment is important in influencing decisions on starting and scaling companies, where they locate, and how they will be structured. The Council is of the view that there is further scope to improve the efficiency of the tax system to create a supportive environment for SMEs and reward entrepreneurship and investment, thus contributing towards broadening the indigenous enterprise and export base. A review of the Irish Tax System as it applies to SMEs and Small Mid-Caps to consider how its competitiveness could be enhanced will be particularly important in this regard.

Recommendation: Conduct a review of the Irish Tax System, considering the interaction and impact of the full range of direct and indirect taxes as they apply to SMEs and Small Mid-Caps to identify appropriate taxation measures that would support Irish enterprise development.

Responsibility: Department of Finance

Capital Gains Tax

Capital Gains Tax (CGT) rates are not easily comparable across countries given differences in tax design and integration with other taxes. Data from the Tax Foundation¹³ shows that Ireland has the 5th highest top marginal rate of capital gains tax in the OECD at 33 per cent. Ireland's CGT rate is particularly high relative to the UK's 20 per cent. The UK's Entrepreneur's Relief scheme provides for a 10 per cent CGT rate on business investments by both entrepreneurs and passive investors. The relief is subject to a lifetime threshold of £10 million per individual. Ireland's CGT Entrepreneur Relief provides for a reduced CGT rate of 10 per cent for entrepreneurs, subject to a lifetime threshold of €1 million in gains (subject to certain criteria). Budget 2019 is a missed opportunity to further align Ireland's CGT Entrepreneur Relief with the UK's scheme to increase Ireland's competitiveness position in terms of attracting entrepreneurial businesses, skills and start-ups.

Recommendation: Extend the lifetime limit of €1 million to €10 million on gains from disposing business assets in line with the Programme for Partnership Government commitment to reduce the rate of Capital Gains Tax for new start-ups to 10 per cent from 2017 (held for five years and subject to a €10million cap on gains).

Responsibility: Department of Finance

Start-up tax relief

In the context of our increasing dependence on a narrow base of multinationals, Ireland needs a step-change in the number of start-ups and companies that scale. The start-up tax relief is a reduction of the corporation tax to new business companies in their first three years of trading, intended to support entrepreneurship and broaden the corporate tax base. The relief can be applied to the profits from new trade and on chargeable gains made on assets used in that trade. The full relief is available to start-up companies with corporation tax liability of up to €40,000, and partial relief may apply if the corporation tax liability is between €40,000 and €60,000. The duration of the scheme, due to expire at the end of 2018, was extended until the end of 2021, in Budget 2019.

Employment and Investment Incentive (EII)

The Employment and Investment Incentive (EII) is a tax incentive whereby individuals who invest in certain qualifying companies obtain tax relief on the amount invested. The relief continues to be an important component of the funding

¹³ Tax Foundation, International Tax Competitiveness Index 2017

landscape for Irish enterprises, providing an alternative source of finance to SMEs and start-up enterprises. The ability for enterprises to access external funding, including risk capital, appropriate to their company structure and stage of development, is important, underpinning the competitiveness of the enterprise environment. Based on the planned review of the EII, the Department of Finance has undertaken to develop a priority package of measures to address the main issues identified and to increase the efficiency and effectiveness of the incentive.

Foreign Earnings Deduction (FED)

In the context of market diversification, the Foreign Earnings Deduction (FED) was introduced as an incentive to Irish businesses seeking to develop and expand into emerging overseas markets. The objective of the FED is to provide an income tax deduction for Irish employees who work abroad in certain non-EEA countries for a period during the year. Recognising that some sectors of the Irish economy are highly reliant on the UK as an export destination, and to provide certainty for potential investors in Ireland, Budget 2017 extended the scheme until 2020 and reduced the minimum number of days required to be spent abroad in order to encourage Irish businesses to seek expansion opportunities for trade into non-traditional export markets for Irish goods and services.

The National Competitiveness Council publication, Ireland's Competitiveness Scorecard 2018, reports that the UK accounted for €14.4 billion, (12%) of total Irish exports and is the primary destination for Food exports, accounting for 28 per cent of total food exports. Extending the scope of the FED will encourage Irish firms to expand their business into new markets and mitigate some of the negative effects of Brexit. The scheme could be modified to diminish deadweight by excluding destinations where the undertakings have a permanent establishment.

Recommendation: Review and consider extending the scope of the Foreign Earnings Deduction to all non-EEA countries.

Responsibility: Department of Finance

Special Assignee Relief (SARP)

The Special Assignee Relief (SARP) has an important role in attracting specialised, experienced senior executives to Ireland. By providing income tax relief to assignees, the SARP contributes towards securing and embedding investment which is sustainable in the longer-term. The consistent increase in the number of claimants indicates that it is successful in attracting high skilled talent to firms based in Ireland. It is vital that SARP remains internationally competitive, particularly regarding attractiveness to SMEs, as several other jurisdictions with which Ireland competes for FDI operate specialist regimes to attract highly mobile key employees.

It is also essential that Irish based enterprises can attract the right people, with the skills and calibre to win business on an international stage and to propel business growth strategies. Irish based employers, and SMEs in particular, face challenges in recruiting highly skilled mobile talent. This challenge is not specific to Ireland, however, Ireland's high rate of marginal taxation on income plays an increasingly important part in an individual's decision-making process. The fact that many of competing EU countries have schemes offering reduced levels of personal taxation for talented, mobile individuals serves to exacerbate this problem.

Recommendation: Ensure that the SARP remains internationally competitive and accessible to enterprises based in Ireland. Extend the thirty-day notification requirement to ensure that claimants can avail of the tax relief.

Responsibility: Department of Finance

Key Employee Engagement Programme (KEEP)

The tightening labour market and the presence of a large multinational cohort competing for skilled labour results in Irish indigenous SMEs facing difficulties in offering market level wages. The CSO¹⁴ reports that the average wage offered by local enterprises represents around 60 per cent of the average wage in foreign-owned companies. In an effort to address this issue, the Government introduced a SME-focussed, share-based incentive scheme for key employees (Key Employee Engagement Programme - KEEP) in January 2018. According to the European Commission¹⁵ firms offering employee financial participation are more likely to experience significant increases in both productivity and employment and thereby competitiveness. The Commission has also recognised that a shortage of skilled employees adversely impacts innovation and growth by restricting small firms' abilities to explore the productive potential of innovation and ideas and acknowledged the need to promote a more entrepreneurial culture and create a supportive environment for SMEs¹⁶. The share-based scheme, introduced this year, is designed to serve as an additional incentive to key employees as the performance of their company will affect their return and the value of their shares. It is of critical importance that KEEP is closely monitored to ensure that the scheme improves Irish SMEs ability to attract and retain talent. A sufficient take-up of the scheme has the potential to contribute towards matching labour resources to the economic needs of businesses and boost their productivity. To increase the effectiveness and uptake of the scheme, Budget 2019 announced modifications to KEEP. These allow for gains arising to employees, on the exercise of KEEP share options, to be liable to Capital Gains Tax on disposal of the shares, in place of the current liability to income tax, USC and PRSI on exercise. Budget 2019 also introduced an increase in the ceiling on the maximum annual market value of shares that may be awarded to equal the amount of the salary (up from 50%); replaced the three-year limit with a lifetime limit; and increased the quantum of share options that can be granted under the scheme from €250,000 to €300,000.

Corporation Tax

Ireland's corporation tax regime continues to play an important role for ensuring a competitive, stable transparent and predictable environment for inward investment. As set out in this year's Competitiveness Scorecard Report, Ireland's corporation tax rate remains internationally competitive and was the third lowest in the OECD in 2017 at 12.5 per cent. Ireland's rate has remained consistent over recent years, however, many of Ireland's competitors have reduced their rates (e.g. the UK and in 2018, the US¹⁷). While it is too early to predict the impact of the US tax reform, it may, in the future, influence the US companies' decisions as to whether to invest abroad. Given that the US is Ireland's single largest source of FDI, the potential implications of the US tax reform need to be carefully analysed. In this regard Ireland's corporation tax regime should remain an important part of Ireland's long-term wider competitiveness offering to support enterprises based in Ireland invest, innovate and compete internationally.

Ireland remains committed to global efforts to combat aggressive tax planning and is actively engaging in the OECD Base Erosion and Profit Shifting project (BEPS). Ireland has consistently implemented the BEPS recommendations and has introduced domestic measures to address tax evasion and avoidance. In September 2018 the Department of Finance published Ireland's Corporation Tax Roadmap which outlines a number of actions for the implementation of the commitments made through EU Directives, the OECD BEPS reports and the recommendations set out in the Coffey Review, including actions on the implementation of the EU Anti-Tax Avoidance Directive and introduction of Controlled Foreign Company legislation. In introducing Controlled Foreign Company legislation, it is important to ensure that the provisions are implemented in a competitive and business friendly manner. The Council supports the Government's policy on actively engaging in the world-wide tax reform which focuses on implementing the

¹⁴ CSO, Foreign Direct Investment in Ireland 2015

¹⁵ European Commission, The promotion of Employee Ownership and Participation, 2014

¹⁶ Communication from the Commission to the European Parliament, the Council, the European economic and social Committee and the Committee of the Regions, Entrepreneurship 2020 Action Plan, Reigniting the entrepreneurial spirit in Europe, COM (2012) 795 final of 9.1.2013

¹⁷ The Tax Cuts and Jobs Act of 2017 reduced US corporate tax rates to one flat rate of 21% tax rate on corporate income from 1 January 2018.

recommendations of the BEPS project and on consideration of the types of further reforms to ensure tax is paid where value is created.

As part of the growing pressure to harmonise the corporate tax regime in the EU, in October 2016 the Commission re-launched its proposal for an introduction of a Common Consolidated Corporate Tax Base (CCCTB). The Irish Government is analysing fully the CCCTB's potential impact on our tax system and Ireland's competitiveness.

The initial view of the Department of Finance and the Revenue Commissioners is that the CCTB would narrow our tax base, and this will result in less corporation tax revenue being paid in Ireland¹⁸. CCCTB is currently being discussed by the European Council where unanimity is required to agree the proposal. In March 2018, the European Commission proposed two initiatives to ensure that digital business activities are taxed in a fair and growth-friendly way in the EU. The first initiative (a long-term solution) aims to reform corporate tax rules so that profits are registered and taxed where businesses have significant interaction with users through digital channels. In response to some Member States requests, the second initiative proposes an interim tax which covers the main digital activities that currently are not effectively taxed in the EU. The measures could eventually be integrated into the scope of the CCCTB. The National Competitiveness Council considers that it is vital that Ireland's tax offering remains stable and internationally competitive for firms seeking an EU base for operations and therefore the proposals require in depth analysis and consultations with stakeholders. The proposed EU rules may have unintended impacts for business and, if implemented in isolation, may diverge from rules developed globally which could potentially lead to double taxation and greater uncertainty.

Recommendation: Maintain the 12.5 per cent of corporation tax. Develop Ireland's suite of tax offerings to ensure it is internationally competitive for enterprise and relevant to evolving sectors and activities in the context of collaborating with the OECD on the Base Erosion and Profit Shifting project.

Responsibility: Department of Finance

Broadening the tax base

As discussed above, dependence on a narrow base of revenues (particularly regarding corporation tax receipts, which can be volatile) makes the public finances more vulnerable to the risk of future shortfalls in revenue. A broad tax base is an important factor for improving the sustainability of the public finances and building the resilience of the economy. Recent measures to increase our tax offering and improve the competitiveness position of enterprise, such as increasing the tax credits for self-employed individuals and fiscal incentives for share-based remunerations, may have the effect of narrowing the tax base if such measures are not offset by increases elsewhere. Using unstable and pro-cyclical sources of revenue to fund current expenditure also makes public finances more vulnerable to the risks associated with future deficiencies in revenue.

Personal income tax was the single largest source of tax revenue to the Exchequer in 2017, comprising over 39 per cent of the total tax take (€20 billion income tax out of €50.7 billion total tax receipts)¹⁹. The OECD Revenue Statistics 2017 Report indicated that relative to the OECD average, Ireland's tax structure is characterised by higher revenues from taxes on personal income. Taxes on personal income are regarded as more distortionary to economic growth than taxes levied on property and consumption. In addition, the European Commission's Ireland Country Report 2018 noted that the personal income tax base has been narrowed in the last few budgets. In 2018, 956,200 people, or approximately 37 per cent of the income earners are exempt from paying income tax and 29 per cent (769,800 people) pay neither income tax or USC²⁰.

¹⁸ Corporation Tax, Tax Strategy Group, July 2018

¹⁹ End 2017 Exchequer Returns, Department of Finance and Department of Public Expenditure and Reform

²⁰ Revenue Commissioners, Ready Reckoner - Post Budget 2018

Value Added Tax (VAT)

The OECD tax hierarchy of growth ranks consumption taxes as the second least damaging taxes to economic growth after recurrent property taxes. Previously, the Council had called for a review of the 9 per cent VAT rate regime, with a view to creating a more growth-friendly taxation system and broadening the tax base. The review of the 9 per cent VAT rate, published by the Department of Finance in July 2018, found that the ongoing and cumulative costs of the reduced VAT rate are substantial, estimated at €490 million in 2017, and €2.6 billion in total since its introduction in 2011. The Council supports the return to the 13.5 per cent VAT rate on tourism activities introduced in Budget 2019 which should contribute towards broadening the tax base.

Property Tax

According to the OECD tax hierarchy for growth, recurrent taxes on immovable property are regarded as the least damaging to economic growth. Ireland's current property valuations were introduced in 2013 and apply up to and including 2019, although property prices have increased significantly since 2013. The review of the Local Property Tax launched by the Department of Finance in January 2018 will provide the basis for recommendations on actions on the overall yield from local property taxes, its contribution to total tax revenue and the best way of achieving that objective. The Council is of the view that a gradual re-alignment of the existing property values to current market values will contribute towards broadening the tax base.

Recommendation: Improve the efficiency and resilience of the tax system by ensuring a balanced mix of tax sources and avoiding the reliance on volatile and potentially transitory revenue sources for funding increased levels of public spending and reductions in tax rates.

Further broaden the tax base to enhance the stability of the public finances. As part of the review of the local property tax, consider gradual revaluation of property values in line with current market prices.

Responsibility: Department of Finance

Ensuring a sustainable workforce for inclusive economic growth

Increasing labour market participation rates

In an economy approaching full employment, ensuring sustainable economic growth depends on the availability of sufficient labour. The income tax regime could be used better to stimulate labour force participation and attract talent from abroad. The IMF²¹ recently warned that Ireland's current tax system is viewed as unable to reward work sufficiently since individuals earning an average wage are charged at the higher tax rate. Moreover, the relatively high marginal tax rate faced by high income earners is viewed as an impediment to international competitiveness and a disincentive to attract skilled labour from abroad. OECD data²² shows that in terms of income tax and social security contributions as a percentage of total labour costs for married couples and individuals earning the average wage, Ireland is more competitive than the euro area and the UK. However, even though the UK and Ireland's social security contributions are lower than other countries, combined income tax and social security contributions for individuals earning above the average wage in Ireland are less competitive than the UK. Marginal rates of income tax in Ireland for individuals earning the average wage and above exceed the euro area and UK rates and act as a barrier to attracting

²¹ Ireland: 2018 Article IV Staff Report, IMF

²² OECD Taxing Wages, Ireland 2018

mobile skilled labour. At present, including PRSI, the marginal rate of tax for a single person on incomes between €34,550 and €70,044 is 48.75 per cent and 52 per cent for employees with incomes in excess of €70,044²³. In 2017 the highest income tax rate (40%) in Ireland was triggered at €33,800, significantly below the average annual wage of €47,116²⁴. In the UK the 40 per cent rate is applied to earnings above £33,500, just below the average annual wage of £35,163. Both countries revised the entry point at which the higher income tax rate is triggered in 2018. While Ireland's entry point rose marginally to €34,550, the UK gained a competitiveness advantage by currently applying the higher income tax rate at earnings above £46,350²⁵. The low entry point to the top marginal rate of income tax is also undermining efforts to increase female labour force participation and putting pressure on business to increase labour costs in order to provide competitive wages in an international context.

Budget 2019 announced a reduction in the third rate of USC from 4.75 per cent to 4.5 per cent and an increase of €750 in the income tax standard rate band for all earners, from €34,550 to €35,300 for single individuals and from €43,550 to €44,300 for married one earner couples. The Council supports the increase of the entry point at which an income earner attracts the higher rate of income tax and the reduction of the third rate of USC. The changes will reduce the marginal tax rate on incomes up to €70,044 from 48.75 per cent to 48.5 per cent and fewer people will have their income taxed at the 40 per cent income tax rate. However, further efforts are required to bring the marginal tax rate in line with the marginal rates in competitor countries.

The OECD comparisons of income tax and marginal rate of income tax between different countries are calculated for cohorts earning below or above average earnings. The OECD calculations of the average wage for Ireland do not appear to include the cohort of supervisory or managerial workers, while part-time workers are included on a non-adjusted basis. If the average wage is calculated in line with the methodology used for most OECD countries, Ireland's average wage will be higher²⁶, which indicates that the level of average income tax and marginal rates of income tax could be less competitive. In the current climate of a tightening labour market and an intensifying competition for talent globally, the Council urges the Government to reduce the top marginal rate further, move the entry point of the top marginal rate closer to or above the average wage, or combine the two measures to avoid loss of competitiveness and facilitate the continued attraction of mobile talent and investment.

Recommendation: Increase the entry point to the top marginal rate of income tax and reduce the maximum marginal rates for all employees to attract global talent.

Responsibility: Department of Finance

Replacement Rates

Measuring a person's financial incentive to take up employment, **replacement rates** compare a person's in-work income with out-of-work income.

Generally, a replacement rate of more than 70 per cent is considered to act as a disincentive to work. Ireland's Competitiveness Scorecard 2018 shows that for a long-term unemployed, one earner married couple with two children earning 100 per cent of the average wage, the Irish replacement rate (79%) exceeds the OECD median (58%) and the

²³ Parliamentary Budget Office, Post-Budget 2018 Commentary for the Committee on Budgetary Oversight, October 2017

²⁴ OECD, average annual wages statistics, https://stats.oecd.org/Index.aspx?DataSetCode=AV_AN_WAGE

²⁵ The comparison does not take into account tax credits and various charges that may influence the effective level of tax rates.

²⁶ See <http://economic-incentives.blogspot.ie/2018/05/why-is-irish-average-wage-in-oecd.html>

UK rate (71%). The rate for single persons (49%) also exceeds the OECD (32%) and UK (37%) rates. The replacement rates are higher for lower-income families.

Analysis carried out by the Department of Public Expenditure and Reform²⁷ shows that the majority of Live Register payment recipients, (those not claiming for adult and child dependants) will not experience a disincentive as a result of their social welfare payment. Replacement rates are high for families with children as a result of increased eligibility for additional allowances and benefits (41% of unemployed families with children have a replacement rate high enough to produce disincentives) and one-earner households are particularly vulnerable due to the high level of subsidisation of medical and housing expenses.

In-work benefits provided by the Department of Employment Affairs and Social Protection such as the Work Family Payment and Back to Work Family Dividend reduce the replacement rates of families by increasing their in-work income at low wage levels. The Report found that the Working Family Payment was particularly effective in maintaining incomes and lowering replacement rates. Housing Assistance Payments were also found to be effective at lowering replacement rates through the variable rent scheme until their withdrawal.

The National Competitiveness Council recognises that given the demographic, economic and social changes underway, further changes in the social insurance system are inevitable. As the social welfare system interfaces with the tax system in redistributing income and providing income supports and social services, any further changes should have regard to future funding requirements of social insurance benefits.

The Council considers it important to continue to address deficiencies in the current income tax regime to incentivise the take-up of employment, recruitment and retention of talent. In the context of changes to the income tax system, it will be useful to consider the scope for additional measures on financial incentives to encourage take-up of work by particular cohorts.

Realising the potential of the unemployed

The robust performance of the economy is reflected in a strong broad-based employment growth. CSO data for Q3 2018 shows the total number of persons in the labour force in the third quarter of 2018 was 2,417,00, representing a 2 per cent increase over the year. There was an annual increase in employment of 3 per cent in the year to the third quarter of 2018, bringing total employment to 2,273,200. Employment increased in 10 of the 14 economic sectors over the year with the largest rates of increase were recorded in the Construction (+13.9%) and Administration and support service activities (+13.5%) sectors. Consistent with the increase in employment levels, headline and long-term unemployment are also on a steady downward trajectory. Unemployment decreased by 12.1 per cent in the year to Q3 2018 bringing the total number of persons unemployed to 143,800. There were 111,500 people who were part-time underemployed.

In Q3 2018, the seasonally adjusted unemployment rate was 5.7 per cent. The long-term unemployment rate decreased from 2.7 per cent to 2.1 per cent over the year to Q3 2018. The youth unemployment rate for 15-24-year olds decreased by 1.2 per cent to 14.9 per cent over the year to Q3 2018. Similarly, long-term unemployment rate fell from 2.7 per cent to 2.1 per cent in the year and accounted for 34.9 per cent of total unemployment in Q3 2018.

Maintaining the economy's growth potential as the labour market tightens will require a continued flow of labour and specific skills requirements, particularly in key sectors for the Irish economy. Supports offered to the long-term unemployed include the JobPath, JobsPlus programmes and initiatives reserving places for long-term unemployed jobseekers on employment and training programmes. JobPath is an employment activation service initiative which works closely with employers to secure vacancies mainly for people who are long-term unemployed (over 12 months) to assist them with advice and support to prepare for, secure and sustain full-time paid employment or self-

²⁷ Department of Public Expenditure And Reform, Spending Review 2018 Analysis of Replacement Rates

employment. Approximately 160,000 participants have engaged with the service since its inception. People engaged with the JobPath service have the option, from 1 June 2018, of also applying for the community employment scheme and Tús (a community work placement scheme providing short-term working opportunities for unemployed people, including long-term unemployed youth). A full econometric evaluation of JobPath has commenced and will be completed by the end of 2018. The review will evaluate JobPath as a service and estimate the impact of its interventions on returning people to the work force.

JobsPlus is an incentive for businesses who offer full-time employment to jobseekers on the Live Register. It provides monthly cash payments to businesses to offset their wage costs. A review of JobsPlus found it effective in getting people who were long-term unemployed off the Live Register (87% of employees remained off the Live Register between 30 and 36 months after their commencement on the scheme). Where employees completed 24 months on the scheme, this rose to 94.8 per cent. Given the changing nature of the Live Register, the review concluded that it may be appropriate to adjust the incentive to focus on those who are unemployed for three years or longer. Workers over the age of 50 were under-represented on JobsPlus (accounting for less than 10%). By contrast, 40 per cent of those who were long-term unemployed at the time were over 50 years.

The scheme was amended in January 2018 to include the following changes:

- to encourage the recruitment of older people who were long-term unemployed, a grant of €10,000 is payable over two years in respect of recruited Jobseekers on the live register, over 50 years of age who have been at least 12 months of the previous 18 months unemployed
- €10,000 is also payable for jobseekers under 50 years on the live register who have been at least 36 months unemployed in the previous 42 months
- €7,500 is payable over two years for jobseekers, under 25 years and on the live register for at least 4 months in the previous 6 months and those between 25-50 years of age on the live register who have been at least 12 months unemployed in the previous 18 months.

The youth unemployment rate declined in 2017 and 2018, and in Q3 2018 was 14.9 per cent. However, it was significantly above the unemployment rate of the 25-74-year-olds' (4.2%). The Government is putting measures in place to enhance processes and policies for assisting young unemployed people to find and secure sustainable jobs. The Department of Employment Affairs and Social Protection introduced a new scheme tackling youth unemployment in October 2018. The Youth Employment Support Scheme (YESS) targets young people aged 18 to 24 who are long-term unemployed or who face barriers to employment. The scheme is designed to provide young people with the opportunity to learn basic work and social skills in a supportive environment while on a work placement. The scheme complements and sits alongside other opportunities developed by the Department of Education and Skills, such as the new Career Traineeships and Apprenticeships Scheme, broadens the choice available to young people. Employers are encouraged to hire participants who have performed well, and those who do qualify for a financial subsidy under JobsPlus Youth.

Recommendation: Publish the JobPlus evaluation Report, once completed, and consider recommendations on further adjustments to the scheme.

Conduct an evaluation of the labour market activation programmes for the long-term unemployed JobPath and JobsPlus to provide an evidence-based approach for improving the effectiveness of these programmes.

Responsibility: Department of Employment Affairs and Social Protection

The OECD²⁸ notes that within total active labour market programmes in Ireland, the share of direct job creation spending is higher compared to most EU countries, some spending may be inefficient, as such programmes are usually limited in time, and future employment prospects can be modest. The OECD advises that consideration be given to shifting the focus to programmes promoting skills development.

External assessment of Ireland's Public Employment Services (PES) conducted by the European Commission in conjunction with the ICON Institut and published in 2017, reflects the considerable change agenda the Department has undertaken to build up organisational capacity and reform customer services to achieve the objectives of the employment services. Key recommendations of the review include:

- embedding the reforms in a results-oriented performance management system, which puts a clear focus on outcomes rather than process indicators
- mapping case officers and jobseekers according to their strengths to help identify solutions for sustainable labour market integration
- re-establishing a strong reputation with employers - increasing PES's efforts to make employers important strategic partners, as well as extending and refining PES services for employers
- introducing systematic involvement and empowerment of staff through regular self-assessments complemented by the introduction of systematic talent management
- implementing best practice from other EU PES to inform the development of strategies and improve programme evaluations.

For a fully functioning PES it is essential to develop capacity in areas like: professional account management, accredited professional development programmes for case officers; development of more online services to jobseekers and employers and end-to-end reporting of performance across all elements of PES provision.

Recommendation: Implement the recommendations of the External Assessment of Ireland's Public Employment Services.

Responsibility: Department of Employment Affairs and Social Protection

Developing the potential of those excluded from the labour force

The CSO labour force survey estimates that in Q3 2018 there were 1.44 million people not in the labour force of which 118,600 are a potential addition to the labour force. Developing the employment potential of those not in the labour is not only beneficial for economic growth but also for inclusivity more generally contributing to a more sustainable economic model.

In an economy approaching full employment, creating conditions for increasing participation rates to meet the needs of the labour market proves crucial. Measures to encourage labour force participation can improve inclusivity and also help alleviate labour cost pressure.

In Q3 2018, the overall labour participation rate for those aged 15 and over was 62.6 per cent. There is a gender activity gap of 12.6 per cent between male (69%) and female (56.4%). The availability and affordability of childcare services, deficiencies in public transport and road infrastructure and the lack of policies on work place flexibility in many companies are obstacles for harnessing the untapped potential of people outside the labour force. Enhancing female participation has the potential to address the growing needs for skills and talent and to deliver significant social and gender equality benefits. The European Commission recently noted²⁹ that inactivity of women due to caring responsibilities is among the highest in the EU (especially in the 55-64 age group). In addition, the European

²⁸ OECD Economic Surveys Ireland, March 2018

²⁹ Country Report Ireland 2018, European Commission

Commission reiterated that the lack of access to affordable childcare services forces many, in particular women, into inactivity. It remains difficult to access affordable, full-time, quality childcare, although the situation did improve in 2017 somewhat. As discussed in Chapter 2, the gross childcare fees in Ireland are relatively high compared to EU and OECD averages. As a percentage of average wages, gross fees for two children attending full-time care amount to 50 per cent in Ireland compared to the euro area average of 22 per cent. Net Irish childcare costs for couples with two children, earning above the average wage are the third highest in the OECD. For lone parents Ireland is the most expensive OECD location.

Other cohorts with low participation rates are males aged 15-24³⁰ (participation rate of 51.5 per cent in Q3 2018, up from 48.7 in Q3 2017), people with disabilities (employment rates of 29.1 % versus EU 47.4% in 2015) and people aged over 55 (participation rate of 72.5 per cent for age cohort 55-59 which declines to 52.7 per cent for 60-64 cohort). To this effect, the Department of Business, Enterprise and Innovation, in conjunction with other Government Departments, is working to identify relevant policy issues for the cohorts with low participation rates based on patterns of labour market participation as part of the Action Plan for Jobs 2018. The completion of this action is expected by the end of 2018.

The improvement in the labour market has seen a significant reduction in the scale of household joblessness, but the share of the adult population in jobless households (10%) is only marginally below the euro area average of 10.2 per cent in 2017. As part of the Pathways to Work initiative, in 2017 the Government produced an Action Plan for Jobless Households which proposed actions to encourage unemployed and inactive people, such as lone parents, adult dependents on jobseeker claims, carers and people with disabilities, to join the work force. Measures include:

- extending active engagement with the Intreo employment service to additional groups of economically inactive working age adults
- piloting a family focused employment service/case management approach in five geographical areas
- improving incentives and removing barriers for people transitioning from welfare to employment by implementing the House Assistance Payment scheme
- introducing reforms to welfare schemes to support working families
- expanding access to free and subsidised childcare to reduce the costs associated with taking up employment.

The Action Plan sets out two targets to be achieved by 2020:

- reducing the proportion of households that are jobless to 13 per cent or less (from 18% in 2015) and
- reducing the share of the 18-59 population resident in such households to less than 8 per cent (from 12% in 2015).

The European Commission's Country report indicates that Ireland has one of the lowest employment rates of people with disabilities in the EU (only 29.1% versus EU 47.4% in 2015). In 2017 an Interdepartmental Group produced the "Make Work Pay" Report, which proposes actions to remove the barriers which prevent people with disabilities to find employment. In line with the Report, and in consultation with the disability sector, the Action Plan for Jobless Households is proposing a range of reforms to the main illness and disability payments, including the Disability Allowance payment, to support employment, and engagement with Intreo, among people with a disability who could, with appropriate supports, take up employment. The Action Plan acknowledges the importance of targeted activation policies that assist reintegrating unemployed people with disabilities into the labour market. Policies should focus on both helping people with disabilities to gain employment, (particularly by early engagement through the Intreo service with the assistance of appropriate employment supports and services) and on maintaining and upgrading their skills.

³⁰ There is no issue if this cohort stays in education as it equips them better for the labour market

Recommendation: Identify and address policy issues for cohorts with low participation rates.

Responsibility: Department of Business, Enterprise and Innovation, Department of Education and Skills; Department of Employment Affairs and Social Protection, Department of an Taoiseach

Recommendation: Implement the actions outlined in the Action Plan for Jobless Households to encourage take-up of employment. Broaden the regional scope of the family focused employment service and evaluate the service with a view to improving the outcomes of jobless households.

Responsibility: Department of Employment Affairs and Social Protection

Addressing the barriers faced by returning emigrants and those who wish to relocate to Ireland

During the recession the outflow of talent and skills represented a significant drag on competitiveness. In an era where talent is globally mobile, Ireland's ability to attract and retain talent is necessary to maintain competitive advantage. In August 2018, the CSO reported that net inward migration for Ireland in 2018 was 34,000, the highest level of net inward migration since 2008. Irish nationals experienced net inward migration for the first time since 2009, rising to +100 in 2018 from -3,400 the previous year. Of the 90,300 people who immigrated to Ireland in the year to April 2018, 28,400 (31.5%) were estimated to be Irish nationals.

Removing the barriers faced by returning emigrants is vital for improving Ireland's ability to attract Irish people to return home and will contribute towards increasing labour force levels. A report³¹ on addressing challenges faced by returning emigrants commissioned by the Department of Foreign Affairs and Trade examined the obstacles faced by Irish emigrants and proposed recommendations to alleviate any unnecessary administrative burden affecting those emigrants who want to return home.

The fact that so many Irish emigrants have moved to non-EU countries means that the EU-wide measures which facilitate the removal of such barriers for EU citizens is not applicable to these emigrants. This necessitates further action by the Government to specifically address these challenges.

The report notes that measures implemented as a result of legitimate policy objectives have had the unintended consequence of acting as barriers for emigrants who wish to return home. The report identified a number of obstacles faced by returning emigrants in a wide range of areas, the most important being in the areas of housing, employment and motoring. Some of the report's recommendations have been implemented, including actions regarding difficulty in accessing clear information about Government services.

The accumulation of barriers facing returning emigrants is affecting peoples' decisions to return to Ireland to live and work. Moreover, the barriers identified are not unique to returning emigrants, they affect the decision of those migrating to work and live in Ireland, thus diminishing Ireland's position as an attractive location to work. It is vital therefore, that, unless there are legitimate and significant public policy reasons for not implementing the recommendations, the remaining barriers are addressed.

Recommendation: Enhance the attractiveness of Ireland by removing the barriers faced by Irish emigrants who wish to return home, as identified in the report on addressing challenges faced by returning emigrants.

Responsibility: All Government Departments

³¹ Indecon Economic Report on Addressing Challenges Faced by Returning Irish Emigrants, Feb 2018

EEA potential labour force and employment permits

As we approach full employment, labour as well as skills needs are beginning to manifest. Apart from tapping into the skills pool of the Single Market by ensuring that Ireland remains an attractive location to work and live in, another source of meeting labour and skills needs in a tightening labour market is sourcing of skills from outside the European Economic Area. In this regard, it is critical that our economic migration/employment permit system can respond to existing and emerging needs. In the last few years the increasing demand for labour is reflected in the number of employment permits issued. The Competitiveness Scorecard 2018 reports that at 11,361, the total number of employment permits issued in 2017 is almost three times higher compared to 2013 (3,863). The largest number of employment permits was issued in the Service Industry sector (4,270), while the highest increase in the number of permits was recorded in the Medical & Nursing sector (almost 10 times the amount between 2013 and 2017). A high volume of applications has caused delays in issuing employment permits in recent months. In the first half of 2018 (end June) the total number of employment permit applications accepted was 8,195, a 24 per cent increase over the same period in 2017. Although a number of initiatives, including the allocation of additional resources and a work re-organisation programme have been introduced to improve processing times, the issue has not been resolved.

The current economic permits system, last adjusted during the economic downturn, caters for a market experiencing labour surplus while also taking into consideration that the economy needs highly skilled talent from abroad to compete successfully in international markets. In the Action Plan for Jobs 2018 the Department of Business, Enterprise and Innovation committed to review the policies underpinning the employment permits regime with a view to establishing whether they are supportive of Ireland's emerging labour market needs and whether it is necessary to readjust these policies to meet the current needs of the economy. Recognising that economic migration is only a supplementary tool for addressing labour and skills shortages, the Interdepartmental Group which conducted the review produced a range of recommendations to be implemented in the short to long-term. The Council considers the focus of the employment permits system should continue to contribute to attracting highly skilled non-EEA workers in occupations where there are acknowledged skills shortages, often on a global scale. It is important that the impact of these recommendations is evaluated in close engagement with stakeholders before they are implemented.

Recommendation: Conduct a thorough review of economic migration policy every three years to ensure it remains supportive of labour market needs. Prepare an action plan implementing the recommendations of the Interdepartmental Group on the review of the employment permits regime. Assess and report on the impact of adjusting the employment permits system.

Responsibility: Department of Business, Enterprise and Innovation

Recommendation: Ensure that the Employment Permits Unit within the Department of Business, Enterprise and Innovation is adequately resourced in order to avoid delays in issuing employment permits.

Responsibility: Department of Business, Enterprise and Innovation

Ensuring sustainable pension provision for those retiring from the labour force

Like many other developed countries, Ireland is facing demographic challenges. Demographic trends in terms of the ratio of people of working age to pensioners present a significant challenge for the funding and therefore long-term sustainability of the pension system. Notwithstanding planned increases that will see the State pension age rise to 68 in 2028, the ratio of people of working age to pensioners will fall to about 2.3:1 (from 4.9:1 currently) over the next 40 years.

In February 2018 the Government outlined its comprehensive Roadmap for Pensions Reform 2018-2023³². The Roadmap details a series of 43 specific actions presented under six strands, aimed at reforming the Irish pension system. The first strand is a reform of the State pension; the second strand concerns a new automatic enrolment (AE) system; the third and fourth strands relate to improving provisions underpinning existing supplementary pensions; the fifth strand relates to further reform of public service pensions provision; and the sixth strand is about supporting fuller working lives.

The objective of the 'first pillar' of the State pension is the provision of a minimum level of income to enable poverty avoidance. Although the State pension largely delivers on this objective and provides a basic and effective protection against pensioner poverty³³, it is not designed or intended to secure a high level of pension adequacy. The State pension should, in most cases, be combined with personal retirement savings. As such, the purpose of the wider pension system, which incorporates supplementary pensions, is to enable living standard continuity and prevent a reduction in living standards at retirement. However, in Ireland, less than half of those in employment have supplementary pension coverage and only one third of private sector workers have such coverage.

In terms of the State Pension, the Roadmap confirms an intention to reform the manner in which entitlement to the State pension (contributory) is assessed by virtue of a Total Contributions Approach (TCA) for all new claimants from 2020 onwards. Furthermore, it sets out the Government's commitment to maintain the rate of State pension at 34 per cent of average earnings and not increase the State pension age any further before 2035, beyond the increases to 67 in 2021 and 68 in 2028. Any future changes in the State pension age after 2035 will be linked to increases in life expectancy.

Ireland is only one of two OECD countries without a mandatory earnings-related element to retirement saving³⁴. The Roadmap confirms the Government's intention to implement an Automatic Enrolment (AE) retirement savings system by 2022. AE will be designed on a quasi-mandatory basis whereby members 'opt-out' rather than 'opt-in' to a retirement savings scheme. Those currently without supplementary pensions coverage will be targeted. This approach facilitates people who would like to begin saving for retirement but who have not done so for various reasons including simple decision making inertia, a lack of confidence/knowledge levels of pensions and the complexities of the system. The international evidence is that AE reforms have been highly successful at gradually increasing pension coverage. For example, the UK, which begun implementing AE in 2012, has seen 11 million members enrolled, 90 per cent of which have remained in the system.

AE will apply minimum contribution obligations equally across all employers in the domestic economy and will result in many employees in the private sector without individual retirement savings making contributions into personal accounts. The intention is that the system should be delivered in such a way so as to minimise, wherever possible, the administrative and cost burden on employers. Key themes of the AE system are as follows:

- It will supplement the State pension and complement existing private pension provision
- It will be an earnings-related workplace savings system, where employees will retain the freedom to opt-out if they so choose
- Employees, employers and the State will each make a contribution to the member's account
- It will entail a defined contribution model with personal accounts.

In August 2018, the Government published an AE 'Strawman' proposal³⁵ and commenced a public consultation process on the design and operational structure of the AE system. The feedback received during this consultation process will be used to inform the final design of the AE system.

³² <https://www.welfare.ie/en/pressoffice/Pages/pr280218.aspx>

³³ CSO 2016 SILC data indicates 1.56% of those aged over 66 are in consistent poverty.

³⁴ The other being New Zealand which requires that all new employees are automatically enrolled in its 'Kiwi-Saver' system

³⁵ <http://www.welfare.ie/en/Pages/Consultations.aspx>

In terms of the financial contributions that will be required of members and employers, with respect to the impact on personal finances and business costs, there will be a need for prudent management in the introduction and roll out of the AE reform. Contribution rates in Ireland are currently too low to achieve adequacy in retirement. However, whilst higher savings rates now lead to higher standards of living later, it is at the cost of a lower standard of living today. In setting contribution rates for AE, it must be recognised that if rates are set too low, the policy objective of improving post retirement income adequacy may be compromised. Conversely, if contribution rates are set too high, it may unduly impact on business costs and the broader economy, member participation may be discouraged and opt-out rates may increase. To this end, the Roadmap for Pensions Reform confirms that the design parameters of AE will be informed by a detailed macro-economic impact assessment of an increase in savings and contribution rates.

The advantages of increasing pensions saving are clear as it will reduce the significant number of those currently of working age who will have inadequate resources in retirement. While it will increase business costs in the short term, this needs to be considered in conjunction with the long-term benefits of a sustainable economy and competitiveness. Therefore, as has been the case in the implementation of similar reforms internationally, a pragmatic approach should be employed to require a modest minimum level of contributions when initially rolling out AE and increase these on a sustainable and managed basis over time.

Recommendation: Undertake a detailed macro-economic impact assessment of an increase in savings and contribution rates. Gradually phase in an Automatic Enrolment retirement saving system which takes into account the impact that such a scheme might have on competitiveness while balancing these impacts with wider socio-economic outcomes.

Responsibility: Department of Employment Affairs and Social Protection

Climate Action

Climate change presents very significant challenges for Ireland, both in terms of mitigating our emissions and achieving national and international binding targets, as well as adapting to the effects of a changing climate. Meeting climate change targets will be challenging in the extreme. In May 2018 the Environmental Protection Agency (EPA) published a report on "Ireland's Greenhouse Gas Emissions Projections, 2017-2035"³⁶. They also published their inventory of greenhouse gas emissions to 2016. This report shows that, at best, Ireland's non-ETS emissions are projected to be 1 per cent below 2005 levels in 2020, compared to the target of 20 per cent below 2005 levels by 2020. Ireland has annual binding emissions limits set for each year over the period 2013-2020. The EPA inventory shows that while Ireland was compliant with its annual emission allocations for the years 2013, 2014 and 2015, it exceeded its annual binding limit for the first time in 2016. Greenhouse gas emissions increased in all sectors during 2016 and are projected to increase from most sectors in the period to 2020.

The latest available Sustainable Energy Authority of Ireland forecasts indicated that Ireland is expected to achieve approximately 80 per cent of its overall 16 per cent renewable energy target by 2020. Failure to meet 2020 targets will make meeting our post-2020 targets even more challenging.

Environmental Protection Agency data show that emissions are trending upwards, in line with our economic performance. For example, emissions are growing in the transport and industrial processes sectors, linked to a growing economy. The increase in emissions in the industrial processes sector arises mainly from cement production, reflecting the increase in construction activity. Decarbonising transport represents a very significant challenge, with emissions

³⁶ http://www.epa.ie/pubs/reports/air/airemissions/ghgprojections2017-2035/EPA_2018_GHG_Emissions_Projections_Summary_Report.pdf

from the sector forecast to increase by between 17 and 18 per cent between 2017 and 2020. Expanding agricultural output, driven by policy, has led to an increase in emissions in the agriculture sector.

The Government, enterprise agencies and business have introduced several measures to improve the carbon footprint of the economy. Industry continues to embrace the principles of the circular economy and the move towards more sustainable business practices. Companies are changing in response to an increasing consumer demand for more environmentally friendly and sustainable business models, products and services and to reduce costs by improving resource efficiency.

Agencies including IDA, Enterprise Ireland and the Sustainable Energy Authority of Ireland offer a range of supports to industry to assist them to incorporate sustainable practices and good environment management practices into the day-to-day running of their businesses. Industry continues to invest in energy efficiency, waste reduction and emissions reduction schemes, such as installing CHP (Combined Heat and Power) systems or availing of supports to incorporate energy efficiency into design projects.

The agri-food sector is also pursuing a pathway towards carbon neutrality, guided by the principle of sustainable intensification. It is reducing the carbon intensity of food production and contributing to both food security and greenhouse gas mitigation objectives, through a number of measures. These include efficient multi trait animal breeding strategies; efficient use and recycling of nutrients which optimise nitrogen use efficiency and reduce losses of reactive nitrogen to the environment; feeding strategies; support for improvements to animal health and welfare and support of ICT in agriculture to aid delivery of sustainable intensification.

To-date efficiencies have lowered both the emissions intensity of the food produced and have also contributed to reductions in absolute agricultural emissions. However, against a background of removal of milk quotas, it will be difficult for further improvements in emissions intensity to maintain the downward trajectory in overall emissions. Therefore the long-term policy vision is an approach to carbon neutrality in the agriculture and land use sector including forestry which does not compromise the capacity for sustainable food production. "Carbon Neutrality as a Horizon Point" identifies the significant challenge for agriculture whilst also recognising the sectoral opportunities, both within the farm gate and outside the farm gate, to the wider rural economy and bioeconomy such as through fossil fuel and materials displacement in the energy and built environments.

Legislators are also responding to environmental challenges. For example, and in response to worldwide concern about single-use plastics, the European Commission launched "A European Strategy for Plastics in a Circular Economy" in January 2018. The strategy has the ambition to have all plastic packaging reusable or recyclable in a cost-effective manner by 2030³⁷.

In 2019, the Department of Communication, Climate Action and Environment will invest over €164 million in targeted measures to achieve Ireland's energy efficiency and renewable energy objectives, in line with the Government's National Mitigation Plan.

Additional climate related measures across other Departments announced in Budget 2019 include:

- €103.5 million for improvements in grant and premium rates for planting forests
- Introduction of the Beef Environmental Efficiency Pilot to improve the carbon efficiency of beef production
- €70 million for the Targeted Agriculture Modernisation Scheme
- Additional funding of €70 million for the Environment and Waste Management Programme
- 1 per cent surcharge for diesel vehicles to apply across all VRT bands.

³⁷ The European Commission published a legislative proposal on "the reduction of the impact of certain plastic products on the environment" in May 2018. This proposal is at the early stages of discussion ahead of any policy or legislative developments

Carbon Tax

The Minister for Finance announced his intention to put in place a long-term trajectory for Carbon Tax increases out to 2030 in line with the recommendations of the Climate Change Advisory Council and the special Oireachtas Committee which are examining climate changes. The Council's Competitiveness Challenge 2017 noted the need for long term price signalling on carbon tax. To date, the lack of any long-term signalling by Government on the future evolution of carbon tax is regretted. Long-term signalling of changes to the carbon tax is essential to give industry time to adjust, undertake energy efficiency measures or seek alternative sources of energy supply. Certainty in future changes will allow for informed decision making by industry.

Recommendation: Increase the carbon tax on a phased basis taking into consideration the direct and indirect business costs and competitiveness.

Responsibility: Department of Finance

Legislative and policy developments

Since the Council's Competitiveness Challenge 2017 which set out policy measures and initiatives designed to facilitate progress towards meeting Ireland's climate change targets, there has been the following four significant legislative and policy developments:

- **Revision to the EU Emissions Trading System Directive** -The EU emissions trading system (EU ETS), an installation -level 'cap-and trade' system, is aimed at reducing emissions of greenhouse gases in a cost-effective manner. Approximately 100 installations operate in the ETS in Ireland. The current phase, Phase III of EU ETS runs from 2013 to 2020. The revised EU ETS Directive (Directive (EU) 2018/410)³⁸ was adopted on 8th April 2018. It provides the legal underpinning for Phase IV of EU ETS which covers the period 2021 to 2030. By 2030, sectors covered by the EU ETS must reduce their emissions by 43 per cent compared to 2005 levels. To help achieve this target, Phase IV of the EU ETS includes a number of new and revised elements:
 - More targeted carbon leakage rules: the revised EU ETS Directive continues to provide for a free allocation of allowances to the sectors at the highest risk of relocating their production outside the EU, while ensuring that the rules for determining free allocation are focused and reflect technological progress.
 - Funding low-carbon innovation and energy sector modernisation: Several low-carbon funding mechanisms will be set up to help energy-intensive industrial sectors and the power sector meet the innovation and investment challenges of the transition to a low-carbon economy.
 - Strengthening the EU ETS: To increase the pace of emissions cuts, the overall number of emission allowances will decline at an annual rate of 2.2 per cent from 2021 onwards. The mechanism established by the EU to reduce the surplus of emission allowances in the carbon market and to improve the EU ETS's resilience to future shocks, (the Market Stability Reserve), will be substantially reinforced.
- **EU Effort Sharing Regulation** - The Effort Sharing Regulation, Regulation (EU) 2018/842³⁹, was adopted on 9th July 2018. The Regulation aims to reduce greenhouse gas emissions in the EU non-ETS sector by 30 per cent by 2030, relative to 2005 levels. The non-ETS sector includes transport, buildings, agriculture, industry outside the ETS, waste, commercial and public services. The Regulation sets out national targets for individual Member States. Ireland's national target is to reduce greenhouse gas emissions by 30 per cent below 2005

³⁸ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L0410&from=EN>

³⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0842&from=EN>

levels by 2030, with annual binding limits set for each year over the period 2021-2030. Member States have the option to avail of certain flexibilities to help achieve compliance with their target:

- Land use, land use change and forestry (LULUCF) - Ireland can avail of credits from action undertaken in the LULUCF sector that leads to carbon sequestration
- Flexibility to access allowances from the ETS sectors - Ireland can switch ETS allowances to the non-ETS sectors by covering some emissions with EU ETS allowances which would normally have been auctioned.
- *National Development Plan 2018-2027* - The NDP prioritises €22 billion in funding for climate action to 2027, in furthering Ireland's transition to a low-carbon and climate-resilient society. A further €8.6 billion is proposed for investment in sustainable mobility, which will contribute to the decarbonisation of Ireland's transport system.
- *Renewable Energy Directive* - The draft Directive sets a new, binding, renewable energy target for the EU for 2030 of 32 per cent, including a review clause by 2023 for an upward revision of the EU level target. Political agreement on the Draft was reached in June 2018. Among the ambitions of the Directive are:
 - Improving the design and stability of support schemes for renewables
 - Increasing the level of ambition for the transport and heating/cooling sectors
 - Improving the sustainability of the use of bioenergy.

While the UK exiting, the Effort Sharing mechanism would result in the EU either reducing their target for emissions reductions or increasing individual Member States' targets to make up for the shortfall, the mechanism has not yet been agreed. Likewise, the UKs exiting of ETS would likely result in a recalculation of the overall ETS cap, auction allowances and free allocation. The UK has committed to staying in ETS only until the end of Phase III (December 2020) and their Brexit White Paper does not commit to staying in either the ESR or ETS post-2020.

The Council is concerned that, even with full implementation of the NDP investment priorities and full utilisation of the flexibilities outlined above, Ireland may still exceed the allowable carbon budget implied by the EU Effort Sharing Regulation for the period 2021 to 2030 by a considerable margin.

Compliance Costs

Failure to comply with climate change targets will incur significant costs to the Irish Exchequer, with the cost of compliance with our various obligations estimated to run to tens of millions of Euro. Purchasing compliance with climate change obligations diverts spending from capital expenditure and expenditure on essential social services. It is imperative that action is taken to close Ireland's compliance gap as a matter of urgency and in a cost-efficient manner. Increased ambition is required to prevent Ireland falling even further behind in meeting our targets. As outlined above, industry continues to play its part in reducing emissions and closing the compliance gap by tackling emissions and inefficiencies within their control. Any new measures designed to close the compliance gap should be introduced in a targeted manner and recognise the contribution being made by enterprise at a time of high business costs.

Recommendation: Cost-effective options to close Ireland's compliance gap should be identified and prioritised as a matter of urgency. Any initiatives should be targeted to ensure the fair and equitable imposition of obligations.

Responsibility: Department of Communications, Climate Action and Environment, Department of Public Expenditure and Reform, all other relevant Departments

National Mitigation Plan

The Minister for Communications, Climate Action and Environment is required, under the 2015 Act, to bring forward a new National Mitigation Plan at least once every five years. The latest date by which this must happen is July 2022. It is proposed to initiate shortly the process of updating the current Plan. This will facilitate the detailed policy design required to realise the high-level of ambition articulated in the National Development Plan and develop further cost-effective policy options to address Ireland's targets under the Effort Sharing Regulation. This process will also be informed by Ireland's National Energy and Climate Plan, and by a new long-term low emissions strategy, both of which Ireland must prepare and finalise by the end of 2019 under the EU Clean Energy Package. The Council welcomes the plans to update the National Mitigation Plan. This will facilitate the more detailed planning and costing of mitigation measures. It will also allow analysis of the costed proposals and provide an opportunity for industry to analyse opportunities arising from the proposals in the plan. Cost benefit analysis should underpin decision making on mitigation measures.

Recommendation: Ensure that the next National Mitigation Plan identifies the most impactful mitigation measures and details the required funding.

Responsibility: Department of Communications, Climate Action and Environment.

Theme 2: Maintaining Cost Competitiveness

Introduction

An extended period of strong economic growth that is well above the EU average, and a significant positive output gap, could re-ignite the boom-bust dynamic that has previously beset the Irish economy. So far, inflation remains subdued – but rapidly rising property prices and business cost could undermine Irish competitiveness. As a small open economy, hugely dependent on international trade and foreign direct investment, relative cost competitiveness is an important determinant of the overall competitiveness of Ireland. While the economy is experiencing continued strong growth, increasing business costs reduces the competitiveness of enterprises based in Ireland and our attractiveness as a location for mobile investment. The higher cost base also negatively impacts on the ability of Irish firms to compete in international markets. Given that firms in Ireland are generally price takers, cost competitiveness developments have important implications for the overall profitability and viability of firms. A relatively low-cost base, adjusted for productivity, makes Irish - based firms more competitive in international markets and more agile in the face of exchange rate volatility. Cost competitive firms will be better positioned to capture a greater share of the domestic and trading partners' markets. As devaluation is no longer an option, monitoring relative cost developments is of heightened importance to generate improvements in our competitiveness.

The openness of the economy also means the enterprise sector remains vulnerable to volatility in exchange rate movements, international energy prices, global interest rates and trade disputes. Furthermore, Brexit, and the continued uncertainty it has generated, calls into sharp focus the importance of prioritising policies and actions that are within Ireland's control to keep costs inflation low. As economic growth continues, the upward pressure on costs will continue, and it is important that domestic policies do not contribute to any overheating.

Ireland remains a relatively expensive location in which to do business as highlighted by the Council's Cost of Doing Business in Ireland 2018 report. The report described the price profile of Ireland as "high cost and rising" and warned about the series of upward cost pressures faced by the Irish enterprise sector.

- Maintaining sustainable wage levels is essential to Ireland's cost competitiveness. Between 2016 and 2017, hourly labour costs grew by 1.9 per cent in Ireland which was in line with the growth rate recorded in the euro area (1.9%) but lower than the growth rate in the UK (2.6%). In the year to Q2 2018, average hourly total labour costs in Ireland were €26.42 across all the economic sectors, an annual increase of 2.2 per cent. The growth rate in average hourly labour cost was similar in public sector (+2.2%, from €31.98 to €32.68) and the private sector (2.2% from €24.12 to €24.64) in the same period. It is vital that further increases in labour costs are underpinned by productivity improvements.
- A properly functioning property market is critical to underpinning economic sustainability and national competitiveness. The pressure of housing is acutely evident. The severe shortage and the high cost of residential properties has led to the situation where some companies are now renting short term accommodation in order to secure housing for employees to facilitate their business growth plans. Growth in rental prices has been strong since 2012, accelerated between 2014 and 2017 and now are above pre-crisis levels. The last number of years has also witnessed a sustained recovery in the Irish commercial property market. The combination of increased activities in the construction sector and higher number of planning permissions in recent years have helped to revitalise the Irish commercial property market. Office rental prices in Ireland in 2017 compare favourably to cities in the UK.
- A sustainable, secure, and competitively priced supply of energy is vital for enterprise and its ability to compete successfully in international markets. In the period, July-December 2017, the average electricity price increased by 2.1 per cent in Ireland and was above the EU (11%) and euro Area (7%). Gas prices for businesses increased by 0.7 per cent and were above the EU (10%) and euro area (5%) in the same period. The average

price of gas to households in Ireland increased by 3.2 per cent in the second half of 2017 and was below the EU (9.2%) and euro area (21%).

- The Council noted in its Cost of Doing Business report 2018 that, generally, water and waste-water costs for enterprise in Ireland compare favourably with those in competitor markets despite there being a significant variation between water and waste-water tariffs across Local Authorities. The average cost of water per m³ for business across regions ranges from €2.10 in Louth to €3.04 in Wicklow. Irish Water is currently proposing to move to a harmonised tariff regime for non-domestic water customers at national level and the outcome of its consultation process is awaited. Ensuring an adequate revenue stream to maintain water and wastewater services, to upgrade the public water and wastewater systems, and to fulfil our EU commitments is critical to delivering the required investment. A properly phased time-scale for introduction of new water tariffs and certainty in price changes is critical to allow enterprises to adjust.
- Access to competitively priced sources of finance facilitates enterprises to establish, survive, improve productivity, and ultimately scale up. Limited or costly credit damages the environment for entrepreneurship, scaling and investment, and amounts to a competitive disadvantage for Irish enterprises. Central Bank data shows that Interest rates on a range of new business loans in Ireland have been consistently higher than equivalent euro area rates which puts Irish businesses at a competitive disadvantage.

Policy Challenges and Recommendations

Labour Costs

As one of the major cost components for business, labour costs are a key determinant of both firm-level and national competitiveness. Maintaining sustainable wage levels is essential to Ireland's cost competitiveness. The relationship between labour costs and consumer prices is also a major determinant of Ireland's overall cost competitiveness. The competitiveness challenge is to ensure that the interaction between wages, prices and productivity levels is sustainable and enhances both competitiveness and real living standards.

Continued economic growth and the lower unemployment rates will likely put upward pressure on wage levels in the short to medium term. Eurostat data shows that between 2016 and 2017, hourly labour costs grew by 1.9 per cent in Ireland. This growth rate is in line with the growth rate recorded in the euro area (1.9%) but lower than the growth rate in the UK (2.6%). However, this aggregate figure masks the considerable divergence in labour costs at sectoral level. Eurostat data at sectoral level shows that in 2017, hourly labour cost were highest in the Utilities (€55) and lowest in the Accommodation and Food (€16). Hourly labour costs in Ireland (€46) were below the UK (€46.2) in the Financial services sector but above in the Manufacturing (Ireland €31.6 & UK €24.6) and ICT sectors (IE €43.8 & UK €34.3). However, most recent available data shows that labour costs are rising in Ireland, especially for SMEs. According to the European Central Bank SAFE survey, the net percentage of SMEs reporting an increase in labour costs was highest in Ireland at 68 per cent and lowest in Italy at 41 per cent in the period Oct -2017 to March -2018⁴⁰. The corresponding figure for the euro area was 50 per cent.

Over the five years to Q2 2018, the CSO reported an increase in average hourly total labour costs of 4.3 per cent (from €25.34 to €26.42). The percentage changes across the sectors ranged from up 12.7 per cent increases in the ICT sector (from €33.41 to €37.65) to a fall of 1.5 per cent in the Human health and social work sector (from €25.62 to €25.23).

In the year to Q2 2018, average hourly total labour costs in Ireland were €26.42 across all the economic sectors, an annual increase of 2.2 per cent. However, this aggregate figure masks the considerable divergence in labour costs at

⁴⁰ Survey on the Access to Finance of Enterprises in the Euro Area (SAFE) Oct -2017 to March 2018

sectoral level, with the highest average hourly total labour costs recorded in the Financial, Insurance and Real estate activities sector (€39.92) while the lowest average hourly labour costs were recorded in the Accommodation and food service activities sector (€14.29). No sector recorded an annual decrease in average hourly total labour costs.

In a competitive market economy, the state is constrained in terms of its ability to directly impact labour costs beyond determining the national minimum wage rate, public sector pay and regulating the sectoral employment agreements. However, the state can affect labour costs indirectly through its policies on taxation and employer and employee social security contributions. Eurostat data shows that in 2017, the share of non-wage labour costs (excludes wages and salaries) represented 13.7 per cent of the total labour cost in Ireland, a significantly lower figure compared to the euro area (25.9%) and the UK (17.1%). Ireland has a very progressive income tax regime and had 9th lowest rate of social security contributions in the OECD in 2016.

Ireland is highly integrated into the global economy and, as such, its competitiveness is dependent not only on the effectiveness of domestic policies but also on the types of policies enacted in countries with whom we trade. The tightening labour market, with Ireland's falling unemployment rate, means Irish businesses will likely face upward pressure on labour cost in the short to medium term. For the sustainability of cost competitiveness, it is essential that wage growth in both the public and private sectors is underpinned by productivity growth. It is vital that both public and private sectors continue to manage their cost base and drive efficiency, ensuring the stable relationships between the cost of living, wage expectation and cost competitiveness.

To ensure that Ireland remains one of the best places to start a business and that Irish businesses remain globally competitive, it is important that the National Competitiveness Council continue to actively monitor labour cost trends and signal if wage levels undermine enterprise competitiveness and threaten job sustainability. Government, enterprise and trade unions have a role in ensuring that Irish wage growth does not outstrip productivity growth and remains globally competitive.

The National Minimum Wage

Statutory minimum wages are a government's most direct policy lever for influencing wage levels. Established under the Minimum Wage Act 2015, the Low Pay Commission (LPC) has been tasked by the Government to advise on the appropriate rate of the minimum wage on an annual basis. The minimum wage rate in Ireland since January 1st, 2018 is €9.55 per hour (Increased from €9.25) and the LPC's July 2018 Report recommended that the minimum wage be fixed at a rate of €9.80 per hour which was implemented in Budget 2019.

The LPC report indicated that the proportion of employees earning the national minimum wage or less is the highest in Accommodation & Food and Wholesale & Retail. The Report also concluded that moderate increases in the national minimum wage are unlikely to have a significantly adverse effect on employment.

Many empirical studies have found no causal relationship between moderate minimum wage increases and job losses and instead suggested that it might raise worker's productivity. However, some economists believe that, when minimum wages are high to start with, the employment prospects of disadvantaged groups, such as young people, can suffer⁴¹.

Minimum wage increases need to be proportionate and be a part of a broader policy mix (e.g. PRSI, income tax, welfare benefit) to improve living standards of low skilled workers without increasing the cost for businesses. If the increases are too high, they reduce enterprise competitiveness which in turn can harm the very people they are supposed to help (by reducing demand for labour). However, the LPC found no evidence that moderate minimum wage rates adversely impact upon demand for labour in Ireland in this economic climate. It is important to have

⁴¹ The American Economic Review: A Confusion of Economists?

comparatively up-to-date official data regarding the number of people who are paid at the national minimum wage rate. This has now been put in place through the CSO's introduction of a national Minimum Wage-specific question in the quarterly Labour Force Survey. Evidence on the impact of the Irish minimum wage on employment and other labour market outcomes remains relatively scarce, although the Low Pay Commission through its research partnership with the ESRI is working to build the body of knowledge and research in this area. Such data is essential to determine the impact that changes in minimum wage rates have on employment and competitiveness. Addressing the information deficit should continue to be a priority.

Housing

A properly functioning residential property market is critical to underpin economic sustainability and national competitiveness. Residential housing and rent levels impact on the attractiveness of Ireland as a location for investment and on enterprise costs. An adequate supply of affordable and quality housing is important for the attraction and retention of talent. As net inward migration in Ireland, in the year to April 2018, rose to 34,000, the highest level of net inward migration since 2008, the pressure on housing is acutely evident. A sustained period of net inward migration (such as occurred between 2003-2006) can place significant upwards pressure on the structural demand for housing services. Increasingly, employers are faced with difficulties recruiting and retaining the necessary staff to facilitate growth plans due to accommodation issues for employees, particularly skilled workers from overseas⁴². The state of the housing market in Ireland is regarded as one of the biggest concerns among business leaders of most regions and economic sectors⁴³.

Residential Property Prices

After the near collapse during the recession, the construction sector has slowly started to recover in recent years with increases in construction activity and planning permissions. CSO data shows that 14,446 new dwellings were completed in 2017, a year-on-year increase of 45.7 per cent. However, demand continues to outstrip supply as evident by house price inflation across the country.

In the year to July 2018, the CSO reported that prices of all residential property increased by 10.4 per cent at national level, (compared to 11.6 per cent in the twelve months to July 2017). Nationally, house prices were up 10.0 per cent and apartments prices were up 14.2 per cent in the same period. However, there were significant divergences in residential property price inflation across the regions.

- In Dublin, all residential property prices increased by 7.2 per cent with houses up by 6.5 per cent and apartments up by 11.0 per cent in the year to July.
- Overall residential property prices in the Rest of Ireland (excluding Dublin) were 13.7 per cent higher with the house prices up by 13.1 per cent over the same period.

Overall, the national house price index is 18.8 per cent lower than its highest level in 2007. Dublin residential property prices are 21.8 per cent lower than their February 2007 peak. Residential property prices in the Rest of Ireland are 23.1 per cent lower than their May 2007 peak. As the economy continues to expand, the demand will likely continue to be strong and in the absence of immediate additional supply, property price inflation is likely to continue in the short term.

The State can intervene in the housing market through various channels – namely, setting standards, controlling planning and development, funding housing supply and related infrastructure, regulating mortgages and rents, and supporting affordable housing and taxation policy. The Council acknowledges the Government's continuing efforts in responding to the housing challenge. Budget 2019 increased the allocation of funding for housing by over €470 million,

⁴² American Chamber of Commerce Report, Growing Great Teams In Ireland: The Role of the Residential Rental Sector, August 2017

⁴³ Better Housing: improving affordability and supply: Ibec, June 2018

or 26 per cent on 2018 (a total of €2.3 billion has been allocated to the housing programme for 2019, in addition to the extra €93 million in local authority funding for housing). Through the development and implementation of the Rebuilding Ireland Action Plan for Housing and Homelessness, 2016, the Government aims to ensure everyone can access a home either on their own or with appropriate State support. The plan comprises actions across Government to address homelessness, accelerate social housing, build more homes, improve the rental sector and utilise existing housing. The Plan focuses on accessing the availability of existing properties through acquisition or leasing arrangements, with a particular focus on vacant properties, while at the same time facilitating local authorities and Approved Housing Bodies to enhance their build programmes. The Plan aims to increase the supply of new homes to 25,000 per annum by 2020; deliver an additional 50,000 social housing units in the period to 2021; and meet the housing needs of an additional 87,000 households through the Housing Assistance Payment (HAP) scheme and the Rental Accommodation Scheme (RAS). It also incorporates a major social housing delivery programme. After a review of the Plan in 2017 additional capital funding was allocated under Budget 2018, bringing the overall Budget from €5.35 billion to €6 billion.

From 2016 to 2018, it has delivered over 12,700 built, bought or long-term leased homes and a further 32,000 flexible housing solutions under HAP and RAS. The number of previously finished dwellings in unfinished housing developments (UFHDs) dropped from 315 in Q2 2017 to 185 in Q2 2018, a decline of 41.3 per cent. From the peak in Q3 2014 when 716 UFHDs were connected to the ESB Network, UFHDs have decreased by 74.2 per cent. Reconnections decreased by 15.3 per cent to stand at 613 in Q2 2018.

While progress has been achieved on many of the measures under the six-year Plan- social housing solutions, 25,000 new homes target expected to be met a year ahead of schedule-demand for housing has continued to accelerate rapidly due to the high economic growth.

All relevant indicators⁴⁴ – including planning permissions, construction commencement notices and connections to the ESB grid - are showing significant upward trends in home-building activity. The CSO reports that in Q2 2018, there were:

- 4,419 new dwelling completions (34.1% increase year on year)
- 2,761 completed Scheme dwellings (54.4% increase year on year) and
- a 6.2 per cent increase in the number of new apartments built.

Of the total number of new dwelling completions, scheme dwellings made up 62.5 per cent, single dwellings 26.2 per cent with apartments totalling 11.3 per cent.

Most recent data (Q2 2018) available on planning permission shows that planning permissions were granted for 6,777 dwelling units, (up 52.2% on the 4,453 units for the same period in 2017). This includes 4,951 houses (+36.4 %) and 1,826 apartment units (+121.9%).

The NCC has repeatedly highlighted the challenge faced by Irish business caused by the malfunctioning housing market and has advocated for acceleration of supply through collaboration between the private and social sectors. The Council acknowledges that there is no single initiative that will solve the housing crisis in Ireland. The challenges are complex with multiple housing types, and issues like tenure, tenant type and location. However, given the urgency and scale of the challenge and the complexity of the market, it is important that interventions by the State are not pursued unilaterally but should be built on the continued engagement with all relevant stakeholders, such as local authorities, housing agencies, voluntary bodies and the construction sectors. The Department of Housing, together with the local authorities, must work in collaboration to avoid the fragmented approach to place making, especially in relation to urban and rural planning. We must ensure short term requirements do not compromise the need to ensure that the housing stock in Ireland is future proofed, constructed to reasonable standards, carefully located, well designed with social, educational and recreational facilities and transportation connections in mind. It is vital that housing policy is

⁴⁴ Housing Ireland

underpinned by a coherent and effective planning and regulatory framework which encourages higher densities that can be serviced by public transport. In this context, the Council welcomes the publication of the Implementation Roadmap for the National Planning Framework, which is designed to inform the preparation of Regional Spatial and Economic Strategies to translate the NPF principles into regional priorities and policies that can ultimately be reflected in local county and city development plans. While it is a long-term project with a wide-ranging scope, it provides a framework for national planning on investment in housing encompassing population growth projections across the regions in Ireland.

Recommendation: Intensify the focus on implementation and delivery to ensure that the range of objectives and targets set under the Rebuilding Ireland Action Plan are achieved.

Responsibility: Department of Housing, Planning & Local Government

Construction Costs (Residential)

Significant concerns persist in relation to the costs of construction of residential properties. A variety of input costs (e.g. labour, materials, levies and taxes) combine to determine the final cost of construction with the cost of land being the key cost. Higher construction costs can lead to increased prices which negatively impact on affordability and on competitiveness. Despite an increase in construction activity, strong demand particularly for apartments in urban areas, means that property price inflation is likely to continue. Under the National Development Plan, the Government plans to double capital spending to €9.5 billion by 2021, for infrastructural investment and social housing. The Council welcomes this investment as it will help to significantly increase the supply of residential property. However, the Council is concerned that costs, capacity constraints, and low productivity in the construction sector might lead to inflationary pressure which could negatively impact on the outputs of this significant investment.

It is difficult to get accurate cost comparisons of residential property construction costs between countries as these are dependent on the size of the local construction sector, methods of procurement, legal systems, building contracts, currency, availability of building materials and labour, taxation and differences in demand.

Eurostat data⁴⁵ shows that over the period 2010-2016, residential building costs rose in the UK (16.8%), Germany (10.5%), the Netherlands (9%) and France (3.9%). In Ireland, while the construction cost of residential property dropped during 2011-2014, overall it increased by 0.7 per cent during the period (2010-2016), significantly below the rate of change in competitor countries.

In terms of labour unit costs per hour for the construction sector, Eurostat data shows the cost in Ireland to be above the EU-28 average but below Netherlands, France and UK. Labour unit cost across the selected countries in 2016 is presented in the table below:

Construction labour unit costs 2016

Country	€/hour
EU – 28	€26.10
Netherlands	€33.70
France	€31.40
UK	€27.90
Ireland	€27.10
Germany	€27.10

Source: Eurostat

In terms of construction material prices, the CSO Wholesale Prices Monthly series for Building and Construction materials⁴⁶ shows that in the period March 2010 to March 2016, the cost of construction materials increased by 10.55

⁴⁵ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=sts_copi_m&lang=en

⁴⁶ <http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=WPM18&PLanguage=0>

per cent in Ireland, up at least 1 to 2 percentage points ahead of the UK, Netherlands and Germany and significantly ahead of material price inflation in France.

Ireland needs an active, effective and sustainable construction sector for the delivery of high quality and affordable residential properties. The April 2018 study⁴⁷ from the Department of Housing, Planning and Local Government highlights the skills shortage in key construction trades for the short to medium term, which is impacting on delivery capacity and on wage inflation. The study explores the issues and challenges encountered with each of the input costs associated with affordable residential delivery and recommends actions that are required to achieve a return to more sustainable, viable and affordable housing delivery. The key recommendations from the study are as follows:

- In the short to medium term, the skills shortage in the construction industry sectors is a concern and needs further consideration. It is recommended that the Department of Education and Skills and SOLAS liaise further with the residential construction sector with a view to identifying the immediate capacity and skills needed for the sector.
- Industry should continue to pursue the most efficient and compliant methods of construction, given the current skills and capacity challenge, which is likely to remain in the short to medium term, especially as activity further increases

The problems in the Irish housing market, while not unique to Ireland, are severe and will take time to resolve. We must resist introducing policies which promises - but fail - to deliver a quick fix. In a situation where supply is constrained and demand is strong, rising housing prices are an inevitable consequence. This applies to both the rental and purchasing sectors and tinkering with the demand side simply favours one group over another and risks increasing prices further. The Council acknowledges that Government has made progress towards restoring a more sustainable and functioning housing market. Nevertheless, continued priority emphasis must be afforded to increasing housing supply through various measures such as:

- Controlling the cost base
- Understanding the impact of regulation
- Managing existing stock
- Increasing land use for development

The government established a Land Development Agency (LDA) in September 2018 which aims to provide a mechanism for the more proactive management of the State's extensive land bank to counterbalance the boom-bust cycles of development that have in recent years defined Ireland's housing market. The LDA will provide the expert capacity needed for a more strategic and long-term approach to the use of State land, which should help dampen the current excessive land prices that are driving up property costs and help increase the supply of affordable residential property. The agency will have the flexibility to develop sites itself or to develop larger projects in joint partnerships with developers. The agency aims to unlock state-owned sites for private development to facilitate the construction of thousands of affordable homes with the first homes potentially completed in 2020. Under the Agency's plan, developers will have to agree to requirements such as ensuring the site has 30 per cent affordable housing and 10 per cent social housing. It is expected that the new agency plans to designate 30 developments zones or sites in Dublin as well as another 10 in Cork.

The Council welcomes the establishment of the LDA as it provides a mechanism that cools property markets at times of significant price rises by bringing on stream additional land and development opportunities or strategically managing land assets in downturns. It can help to smooth out excessively volatile swings in housing markets, which feeds back into enhancing competitiveness and lower industry costs, particularly for land.

⁴⁷ Review of Delivery Costs and Viability for Affordable Residential Developments

In terms of apartments, in March 2018, the Department of Housing, Planning and Local Government published new planning guidelines, entitled Sustainable Urban Housing: Design Standards for New Apartments, with the aim of enabling a mix of apartment building types more closely reflecting contemporary household formation and housing demand patterns and trends, particularly in urban areas, as well as encouraging more refurbishment and small-scale urban infill schemes. Changes include removing the requirement for car-parking spaces where the area is well-served by public transport and facilitating the introduction of the emerging 'build to rent' and 'shared accommodation' sectors.

New Urban Development and Building Height Guidelines should help deliver more compact growth in our cities, in line with the NPF objectives and a move from arbitrary building height restrictions set at local level towards a more adaptive and qualitative approach that facilitates well-located and taller buildings that meet the highest architectural and planning standards.

Recommendation: Monitor the impact of the new Urban Development and Building Height guidelines on the cost of building apartments.

Responsibility: Department of Finance, Department of Housing, Planning and Local Government

Residential Rents

Rent levels impact upon the attractiveness of Ireland as a location for mobile talent, investment and indirectly on enterprise costs. The private rental accommodation sector has expanded considerably in recent years with over 18 per cent (census 2016) of households in the private rented sector. Rental price inflation impacts the economy through consumption and wage demands and has the potential to damage Ireland's international competitiveness. Continued strong demand for residential property means price inflation in residential rental markets is outstripping general measures of inflation and wage growth, further contributing to the deterioration in affordability within the sector. As housing demand continues to exceed supply, rent inflation is likely to continue in the short to medium term.

Residential Tenancies Board (RTB) data for 2017 indicates that private sector rents continued to trend upwards and are above pre-crisis levels. Rental growth has been strong since 2012 and accelerated between 2014 and 2017. On a year-on-year basis, rents for houses increased by 6.5 per cent and apartment rents increased by 5.3 per cent in 2017. There is a risk that this continual upward trend on rental price may create inflationary pressure on wages. The latest RTB Rent Index for the second quarter of 2018 shows significant differences in annual rent growth across the country. Nationally, average rents were up 7.6 per cent year on year. Rents in Dublin in the same period were up by 8.8 per cent. Rent increases were particularly evident in the Dublin apartment market, whereas the annual rate of increase in rents in the Greater Dublin Area (excluding Dublin) eased back to 5.5 per cent, and rents in the rest of the country (outside the Greater Dublin Area) showed a third successive quarter of moderation in pressures.

In order to address the unprecedented challenges in the residential rental sector, the Rebuilding Ireland Action Plan for Housing and Homelessness, outlines a range of measures and strategy for a viable and sustainable rental sector. The strategy and the recommendations are structured around four key areas: security, supply, standards and services. As part of the Strategy for the Rental Sector, December 2016, the Government set out several measures designed to provide immediate security and stability for those in the rental market and to support the long-term sustainable development of the sector.

The Planning and Development (Housing) and Residential Tenancies Act 2016 makes provision for a rent predictability measure, based on the Rent Pressure Zones (RPZs) where the increase in rents is capped at 4 per cent per annum⁴⁸.

⁴⁸ The classification of an area as an RPZ is dependent on rents in an area meeting a set of objective criteria; firstly, average rents in the area must exceed the national average, secondly, rental inflation must exceed 7 per cent in four of the last six quarters. Where an area is designated as an RPZ, the minimum period between rent reviews is reduced from 24 months to 12 months. The designation of an area as an RPZ applies for a maximum of three years. To encourage the continued growth in the rental stock, new properties to the rental market and properties which have been substantially refurbished are exempt.

Outside of an RPZ, the minimum period between rent reviews continues to be 24 months until the end of 2019. The policy, first implemented in Dublin and Cork, now covers 21 areas around the country. Up to December 2017, nearly 57 per cent of all registered rental properties, involving approximately 180,000 tenancies, were in designated RPZs. The Government is prioritising the development of an affordable rental model, based on cost rental, with the aim of kick-starting supply in RPZs, using publicly-owned lands to leverage land value for the delivery of the maximum number of rental units and targeting middle income households. In this regard, lands held by local authorities in RPZs will be brought to the market on a competitive tendering basis. The Residential Tenancies (Amendment) Bill 2018 gives the RTB additional enforcement powers to investigate and apply sanctions where there are contraventions in RPZs.

Recommendation: Evaluate the effectiveness of Rent Pressure Zones to ensure the 2016 Rental Strategy is delivering affordable rental solutions.

Responsibility: Department of Housing, Planning and Local Government

A report published in September 2017 by the Working Group on Tax and Fiscal treatment of rental accommodation⁴⁹ outlines a number of policy interventions to improve the rental sector, especially with regards to rental tax. Encompassing the concerns of relevant stakeholders, the report provides the cost benefit analysis of changes in the rental tax structure and provides Government with various short, medium and long-term policy options to reshape and augment the Housing Action Plan. These recommendations are as follows:

Short Term:

- Accelerate restoration of full mortgage interest deductibility for landlords of residential property
- Introduce Local Property Tax deductibility for landlords
- Enhance loss relief for landlords (or a sub-set of landlords), to allow relief for rental losses against other income sources in the same year
- Introduce deductibility for pre-letting expenditure for previously vacant properties
- Improve the collection and sharing of data on the rental accommodation sector.

Medium term:

- Allow a deduction against rental income for an element of the capital cost of the rental property in the initial years of ownership, with a corresponding reduction in the base cost of the property for Capital Gains Tax purposes on a future disposal
- Introduce capital Gains Tax relief for properties acquired and retained as rental accommodation
- Introduce an incentive to attract investment capital into the construction of property, in areas of need, to be let at social / affordable rents.

Long Term:

- Review of provisions for the holding of rental property via pension vehicles
- Consider developing a separate method of taxing rental income, for example, a flat tax or a separate rate of tax, as a policy lever to support the sector as a whole or specific sub-sectors (for example, affordable housing/urban housing).

Budget 2019 announced that the full mortgage interest deductibility for landlords of residential property will come into effect from January 2019.

Recommendation: Analyse the feasibility of the remaining recommendations of the Working Group on Tax and Fiscal Treatment of rental accommodation and expedite the implementation of those deemed viable and impactful.

Responsibility: Department of Finance, Department of Housing, Planning and Local Government

⁴⁹ Department of Finance: http://www.budget.gov.ie/Budgets/2018/Documents/Report_of_the_Working_Group_on_the_Tax_and_Fiscal_Treatment_of_Landlords.pdf

Commercial property

The NCC's Cost of Doing Business report 2018 highlighted that, after labour costs, facility or property represents the next significant cost factor in the profile of business costs. The availability and affordability of commercial property⁵⁰ solutions are key requirements for the operation and expansion of enterprises based in Ireland, winning and retaining mobile investment and maintaining competitiveness.

During the downturn between 2011 and 2013, there was limited office construction activity in Dublin. As a result, no new office space was delivered to the Dublin market in the five years to 2015⁵¹. The subsequent resumption of commercial property development since has ensured the delivery of new office space in recent years. However, there has been a gradual levelling off of the number of commercial projects coming into the pipeline, being granted permission or progressing to 'on-site' in the last year. Year on Year in Q1 2018, Construction Information Services (CIS), who monitor planning applications, recorded a 26 per cent decrease in the volume of commercial projects commencing on-site, however, in value terms there was a 137 per cent increase to €330 million relating to these developments.

In terms of the Commercial and Retail Sector, nationally, 210 projects were granted planning permission, a 1 per cent fall in the year to Q1 2018. 259 projects were submitted for planning in Q1 2018, an increase of 6 per cent over the same period last year⁵².

Continued economic growth and enterprise expansion contributed to strong demand for commercial office space in Dublin and other urban locations in recent years. The combination of increased activities in the construction sector and a higher number of planning permissions in recent years has helped to revitalise the Irish commercial property market. The CBRE Irish Market Outlook 2018 reports continued growth in Dublin office take-up and falling vacancy rates. In the industrial sector CBRE reports rental values increased by more than 6 per cent year-on-year in 2017 and this has led to an increase in planning applications for new industrial and logistics buildings. In terms of capital values, an annual increase of 8.4 per cent, 1.3 per cent and 3.2 per cent were recorded in Office, Retail and Industrial values respectively. Jones Lang LaSalle reports that while the capital value index has increased, it remains 38 per cent below 2007 peak value.

Office rental prices in Ireland in 2017 compare favourably to cities in the UK. Cushman and Wakefield report 2017 shows, the cost per square metre per annum in Dublin City (€619) and Suburbs (€324), Limerick and Cork (€325) and Galway (€295). UK costs range from €1333 in the West End, €406 in Manchester, and €303 in Cardiff. Year-on-year increases in Irish locations ranged from 67 per cent in Limerick to 9 per cent in Dublin Suburbs. The CBRE reports⁵³ the equivalent of a further five years of average Dublin office take-up is due to be completed by 2020. The addition of this new stock should help reduce rapid upward pressure on rents and help the extra demand that may arise from any Brexit-related firm relocations.

In Q4 2017 prime high street retail rents increased on an annual basis across Ireland. The most expensive location was Dublin (€3,794, up 4% year-on-year). Costs in Galway (1,349, up 9%), Cork (€1,265, 0%) and Limerick (€562, up 5%) compare relatively favourably to the UK.

The World Bank Doing Business Report⁵⁴ shows that it takes 149.5 days to build a warehouse in Dublin compared with 86 days in London. Cost is recorded as a percentage of warehouse value (the value is €2.5 million in Dublin and £1.5 million in London) and is reported as 4.2 per cent in Ireland compared to 1.1 per cent in the UK.

The availability of information and data is a powerful tool in encouraging efficient markets. In this regard, the Council welcomes the announcement that NAMA and the Central Bank are to co-fund the development of a commercial property statistical system to provide a comprehensive database of commercial sales and lease transactions. The

⁵⁰Commercial properties includes factories, logistics and warehouse space as well as offices

⁵¹ Duffy, D. and Dwyer, H., FDI and the Availability of Dublin Office Space, ESRI, 2015

⁵² CIS Ireland: Q1 2018 Construction Market Review

⁵³ Ireland Real Estate Outlook 2018

⁵⁴ The World Bank Doing Business 2019

system, once operational, will incorporate the existing commercial lease register, currently produced by the Property Services Regulatory Authority. Improving the accessibility of the Valuation Office's comprehensive data on commercial properties would also assist in establishing market size, vacancy rates and facilitate cost comparisons across locations.

Recommendation: Carry out periodic reviews of the commercial property statistical system, once established, to improve data quality in relation to sales and lease transactions of commercial properties.

Responsibility: Department of Finance

Energy Costs

A sustainable, secure, and competitively priced supply of energy is vital for enterprise and its ability to compete successfully in international markets. The Council recognises that as an island with limited natural energy resources, Ireland is a price taker on the international markets for energy and is somewhat limited in the degree to which it can influence energy costs. In addition, the EU plays a significant role in shaping Irish energy policy, particularly, the EU's '2020 Climate and Energy Package'⁵⁵ and '2030 Framework for climate and energy'⁵⁶.

Electricity price inflation in Ireland comprises both controllable (e.g. efficiency of the Irish electricity sector) and uncontrollable factors (e.g. international costs of oil/gas). It is important that Government promote efficiency as a means of reducing controllable costs.

The NCC's Ireland's Competitiveness Scorecard 2018, reports that the average cost of electricity to business in Ireland was above the EU and the euro area. The Sustainable Energy Authority of Ireland's (SEAI), Electricity and Gas Prices in Ireland, 2nd semester 2017 report, also signals that in the period July-December 2017, the average electricity price increased by 2.1 per cent and was above the EU (11%) and euro area (7%). Similarly, gas prices for businesses increased by 0.7 per cent and were above the EU (10%) and euro area (5%) in the same period. Where the average price of gas to households in Ireland increased by 3.2 per cent in the second half of 2017, it was below the EU (9.2%) and euro area (21%)⁵⁷. We need to continue monitoring energy prices to ensure that the controllable part in energy costs is competitive with other countries.

Consistent with European energy policy, the electricity and gas markets in Ireland are commercial, liberalised and competitive. The Government has no statutory function in the monitoring or setting of electricity prices, with the main thrust of Government policy on energy costs focused on ensuring a competitive market and supports for energy efficiency. The Department of Communications, Climate Action and Environment funds a number of incentives and supports for businesses to become more energy efficient thereby improving their cost base. These are operated through the SEAI as follows:

- The EXEED (excellence in energy efficient design) scheme provides advice and grant support for businesses to improve the design, construction and commissioning processes for new investments and upgrades to existing assets.
- The Accelerated Capital Allowance Scheme is a corporation tax incentive for companies and aims to encourage investment in energy efficient equipment by allowing companies to write off 100 per cent of the purchase value of qualifying energy efficient equipment against their profit in the year of purchase. The

⁵⁵ By 2020, the EU aims to reduce its greenhouse gas emissions by at least 20%, increase the share of renewable energy to at least 20% of consumption, and achieve energy savings of 20% or more. All EU countries must also achieve a 10% share of renewable energy in their transport sector.

⁵⁶ By 2030, EU wide - a 40% cut in greenhouse gas emissions compared to 1990 levels - at least a 27% share of renewable energy consumption - indicative target for an improvement in energy efficiency at EU level of at least 27% (compared to projections), to be reviewed by 2020 (with an EU level of 30% in mind)-support the completion of the internal energy market by achieving the existing electricity interconnection target of 10% by 2020, with a view to reaching 15% by 2030.

⁵⁷ <https://www.seai.ie/resources/publications/Electricity-and-Gas-Prices-in-Ireland-Price-July-Dec-2017-.pdf>

Better Energy Communities (BEC) Scheme is a community programme where business can access funding for energy efficiency and building fabric improvement as part of an integrated project in the local community.

- The Support Scheme for Renewable Heat, approved by Government in December 2017, is designed to financially support the replacement of fossil fuel heating systems with renewable energy for commercial, industrial, agricultural, district heating, public sector and other non-domestic businesses. The scheme consists of two types of support mechanism – an operational support (paid for up to 15 years) for biomass heating systems or anaerobic digestion heating systems; and a grant to support investment in renewable heating systems that use heat pumps.

The efficient monitoring and usage of utilities within enterprises should be further encouraged and supported. Enterprise Ireland works with its clients in supporting environmental awareness⁵⁸, encouraging efficient use of energy and water. These supports allow companies to understand and embed improved environmental management practices, assess and apply international environmental best practices and standards and undertake life cycle assessment projects, e.g. the European Water Stewardship Standard.

In addition, the further development of the circular economy, with Government support for renewable energy measures, is important. The exploration of anaerobic digestion, for the agri-food and beverage sector, for example, provides the option for bio-fuels, as outlined in the recent KPMG report on behalf of Ervia, on decarbonising the domestic heating market⁵⁹.

Recommendation: Monitor the effectiveness of and promote awareness among enterprises of, the schemes to help support Irish business to become more energy efficient thereby controlling their cost base.

Responsibility: Department of Communications, Climate Action and Environment, Sustainable Energy Authority of Ireland

Recommendation: Support Irish enterprise to increase its energy efficiency and support businesses to deliver energy solutions to contribute to the achievement of Ireland’s Renewable Energy targets.

Responsibility: Department of Communications, Climate Action and Environment, Department of Business, Enterprise and Innovation, IDA Ireland, Enterprise Ireland, Sustainable Energy Authority of Ireland

It is vital that we retain competitiveness by keeping energy at the lowest cost while achieving national policy objectives, acknowledging the interplay between cost competitiveness, security of supply and sustainability. For many sectors, changes in energy costs have a considerable impact on their export competitiveness. For example, energy intensive pharma-chemical products comprise almost half the total goods exported from Ireland, making the sector critical from an FDI and external trade perspective⁶⁰. For less energy-intensive industries, particularly SMEs, increases in the energy cost may still affect export competitiveness on the margin.

Ireland is a major international hub for data centres and the industry is expanding rapidly, with a significant number of tech giants setting up major European data storage facilities. While data centres are the backbone of the digital economy and raise Ireland’s international visibility as a leading country in the digital economy, they are, by their nature, energy intensive and the growth in the sector poses very serious challenges for Ireland’s energy grid and renewable energy policy objectives. Data centre investments, up to now, have been largely located in the Dublin region. They have stable energy consumption patterns, although their scale means that they are large point loads on

⁵⁸ <https://www.enterprise-ireland.com/en/Productivity/Build-a-green-sustainable-Business/>

⁵⁹ <http://www.ervia.ie/decarbonising-domestic-he/KPMG-Irish-Gas-Pathways-Report.pdf>

⁶⁰ NCC Competitiveness Bulletin 18-3: Economic Concentration 2018

the system and there are capacity constraints within the Dublin area. In its recent All-island Generation Capacity Statement, 2017 -2026, EirGrid predicted energy demand would continue to increase in Ireland largely due to new data centres. The report predicts a 21 per cent increase in total electricity demand in the Ireland over the next decade and most of the need for extra power supply would be centred around Dublin. According to EirGrid’s mid-range scenario, 15 per cent of all electricity demand in Ireland will come from data centres by 2026. Factors, such as, where data centres locate, existing network capacity, and additional network infrastructure needed to support a data centre can lead to higher electricity prices.

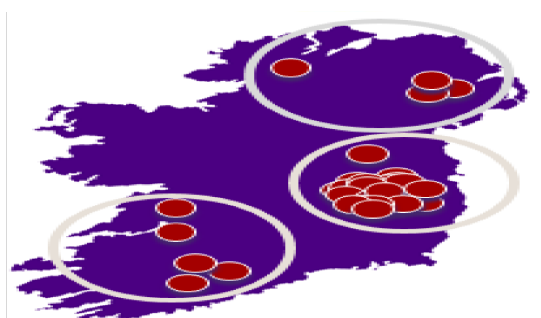
In October 2017, the Government agreed to a strategic policy framework to support the continued development of data centres in Ireland. This Strategic Framework, led by Department of An Taoiseach, involves the Departments of Housing, Communications, Justice and Business, Enterprise and Innovation. The Framework includes:

- the recalibration of the Renewable Electricity Policy Development Framework to take account of wider energy policy developments and considerations
- the Planning and Development (Strategic Infrastructure) Act has been amended to include data centres with a floor space above 10,000 meters squared as Strategic Infrastructure
- the Department of Business, Enterprise and Innovation published a ‘Government Statement on the Role of Data Centres in Ireland’s Enterprise Strategy’⁶¹ which outlines a plan-led approach to data centre development, prioritising development in regional locations in order to mitigate their impact on demand for electricity grid capacity
- the strategic importance of data centres being reflected in the National Planning Framework, which sets out the approach to spatial planning in Ireland to 2040 (DHPLG completed)
- work ongoing in relation to judicial review of major infrastructure projects (DJE)

An IDA report⁶², published in May 2018, highlights the overall economic benefits of data centre investments in Ireland. The key findings of the report are:

- The economic contribution to Ireland of data centres since 2010 is €7.13 billion
- Data centre operators have invested a total of €2.96 billion on the construction of data centres in Ireland
- €1.59 billion of operating expenditure has taken place over the period to 2018
- €1.68 billion of indirect construction benefits
- €0.90 billion of indirect operating benefits.

The report also highlights the data centre concentration across Ireland as shown below and the benefit of clustering.



Data Centre Concentration in Ireland
Source: IDA

“Clustering increases innovation, collaboration, knowledge sharing and other spill overs which enhance productivity and competitiveness. These benefits are derived from the presence of a concentrated base of potential customers, suppliers and resources including skilled labour. A key attraction for companies in data-intensive industries is to be in close proximity to both their own data but also those of suppliers and customers in order to increase efficiency in B2B and B2C transactions.”

⁶¹ <https://dbe.i.gov.ie/en/Publications/Government-Statement-Data-Centres-Enterprise-Strategy.htm>

⁶² IDA Ireland: A study of the Economic Benefits of Data Centre Investment in Ireland

Recommendation: Balance the tech-cluster ambition with resource availability (electricity supply and demand) realities and continue to promote the regional options for data centre investments.

Responsibility: Department of the Taoiseach, Department of Housing, Planning and Local Government, Department of Communications, Climate Action and Environment, Department of Justice and Equality, Department of Business, Enterprise and Innovation

Future challenges in the area of energy prices are apparent. CRU's report⁶³ (July 2018) on the retail market finds the Irish energy markets competitive, with the most recently available EU comparable electricity and gas supplier data. The Council notes the publication of a consultation paper by the CRU in July 2018 which proposes cutting the overall amount raised through the PSO levy by €213 million to €258.6 million. If implemented, the proposal would result in reducing the PSO levy by €12.30 a month for small and medium-sized businesses and cutting the charge by €3.43 a month for households.

Water

The Council noted in its Cost of Doing Business report 2018 that, generally, water and waste-water costs for enterprise in Ireland compare favourably with those in competitor markets despite there being a significant variation between water and waste-water tariffs across Local Authorities. The average cost of water per m³ for business across regions ranges from €2.10 in Louth to €3.04 in Wicklow. However, the Council is constrained in its analysis of the competitiveness impact of water tariffs on the different sectors and enterprise sizes by the lack of availability of metrics on water and waste water.

Recommendation: Develop comprehensive sectoral level data on water and waste water.

Responsibility: Irish Water, Commission for Regulation of Utilities

The consequences of inadequate planning, low levels of investment in water infrastructure and inadequate wastewater treatment facilities have been well documented in previous Council reports. Ensuring an adequate revenue stream to maintain water and wastewater services, to upgrade the public water and wastewater systems, and to fulfil our EU commitments, is critical to delivering the required investment. The previous uncertainty regarding the future funding of Irish Water⁶⁴ and the challenges this created in terms of infrastructure planning and development and Ireland's failure to meet its own national target for a 13 per cent improvement of surface water standards during the six-year period to 2015, have been major competitiveness concerns for the Council.

Irish Water's business plan for 2015-2021 outlined a range of key deliverables in the short term. It included:

- transforming the water delivery service model to improve efficiencies and cost savings; implementing best utility practices in operations, maintenance and capital investment delivery
- investing €5.5 billion to bring water infrastructure and services to an acceptable level
- building a solid commercial company that will raise funding independently of the Government to invest directly in water infrastructure
- supporting economic and social development as our economy recovers and grows.

The Commission for Regulation of Utilities in its Work Plan for 2017 committed to ensuring that a transparent and harmonised suite of tariffs are put in place for Irish Water's non-domestic customers for 2018. In May 2018, Irish Water

⁶³CRU: Retail Markets Annual Report 2017

⁶⁴ Since 2014, Irish Water, a State owned single utility, is responsible for planning and development of Irish water services nationally. It has statutory responsibility for all aspects of water services planning, delivery and operation for public water services, including the delivery of water and wastewater infrastructure.

submitted a technical paper to CRU for non-domestic tariffs including proposals for transitioning to the new tariff regime.

Some of the headlines of Irish Water's proposals on the key non-domestic tariff design elements are:

- Geographic Basis for Charging – the tariffs should operate nationally
- Customer Classification – agree that customers should be classified into different usage classes (based on annual consumption)
- Transitioning customers - transitional arrangements should be operated that allow time to transition to the new tariff regime for those enterprises that are significantly affected
- Customer Communication - provide a high-level of appropriate customer communication
- Avoid undue price volatility.

The NCC agrees with the main characteristics of the proposed new tariff regime. The proposal to move to a harmonised tariff regime for non-domestic water customers should provide coherent and consistent charges across the country and facilitate more equitable and transparent water costs for new and existing businesses.

A new tariff regime will result in price increases for some enterprises. A properly phased time-scale for introduction of changes, and certainty on price changes is critical to allow enterprises to adjust. Certainty on pricing is critical for both existing and new businesses to facilitate decision making. Uncertainty in respect of pricing and service levels for connections can impact on companies who wish to establish in new premises, or expand business.

In addition, the new pricing policy provides an opportunity to increase awareness of water conservation and encourage efficient water usage. There is an opportunity for behavioural change and improved management of water nationally. Consideration should be given to off-peak water management options for industry; on-site customer water treatment; and re-use and re-cycling options. Information should be provided to non-domestic clients on how they can manage their water services more effectively and potentially reduce costs.

At present, there is no national policy apparent on water management for new and expanding companies and no map to identify water sensitive areas, or areas with capacity for additional water supply and water treatment. It is unclear at a national level, if companies are being encouraged to use public water supply and waste water handling services from Irish Water, or to abstract/discharge the water themselves. In addition, the General Scheme of Water Environment (Abstractions) Bill 2018, (recently the subject of public consultation), has the potential to increase the administrative and financial burden on business by introducing new registration, licensing and potential fees for water abstraction. In progressing the draft legislation, it is important that the administrative and regulatory burden is considered, and a streamlined, efficient, and transparent process is in place to minimise the potential negative effect on business.

Recommendation: Establish a competitive pricing system which takes account of the cost of water services in competitor jurisdictions.

Responsibility: Irish Water, Commission for Regulation of Utilities

Recommendation: Implement marginal-cost pricing (the user-pays principle) such that user payments are closely related to the quantity of the resource used so that water resources are used in the most efficient manner.

Responsibility: Irish Water, Commission for Regulation of Utilities

Recommendation: Establish cost recovery such that payment rates are transparent and closely related to the cost of supply. Provide incentives to encourage greater efficiency of water usage by enterprises as a means to mitigating cost increases and promoting best practice.

Responsibility: Irish Water, Commission for Regulation of Utilities

The NCC fully recognises that Irish Water requires adequate resources to deliver a modern high-quality water infrastructure regime over the medium to long term. This is particularly important given the years of underinvestment resulting in the current poor state of infrastructure. However, cost competitiveness is critical to ensuring that enterprises based in Ireland can compete successfully in international markets. The overall cost level, including the price-competitiveness of water and wastewater charges, and the rate of change of these key business inputs impact on competitiveness. The introduction of the proposed new tariff scheme⁶⁵ has implications for the wider economy as it increases the cost base of most medium and large enterprises, outlines how water tariffs are collected nationally, and contributes to cost inflation for businesses and consumers. The proposed new water tariff framework for non-domestic customers, currently being reviewed by the Commission for Regulation of Utilities (CRU), would impose substantial additional costs on businesses. Under this proposal, firms would face an average price increase of 20 per cent and high-volume water customers would on average face larger price increases. 95 per cent of water users with volumes greater than 20,000 m³ per annum face price increases; these include many of the country's largest enterprises and most significant employers. The tariff framework, as proposed, would impact upon the profitability and competitiveness of businesses across Ireland. It will add to their costs and tighten their margins. The proposed tariff framework would also reduce Ireland's attractiveness for investment in industrial and manufacturing sectors including pharmaceuticals, agri-industries, food processing and others.

Recommendation: Evaluate the price competitiveness and impact on enterprise competitiveness of the new water tariffs to ensure high-quality service at a price that makes economic and commercial sense for customers. The new tariff system should not result in cross-subsidisation between customers.

Responsibility: Commission for Regulation of Utilities

The NCC notes that the Irish Water Costs benchmarking study analysis finds that Irish Water is comparatively inefficient with regard to its operating costs and that some of these inefficiencies likely arise from its delivery model through Service Level Agreements with the local authorities. Irish Water's costs, as approved by the CRU through multi-year revenue programmes, are considerable. As Irish Water realises efficiencies arising from a consolidated service level and management practices and develops as a stand-alone utility operator, non-domestic customers should expect these costs to fall into the medium term. It is essential that Irish Water, the CRU and policymakers devise a tariff framework that allows for the required remedial and critical investment in the Irish water network, protecting the future quality of water services, without materially driving up the cost of doing business in Ireland.

Recommendation: Address the remaining inefficiencies in Irish Water and ensure the proposed tariffs for non-domestic customers are correctly and equitably allocated.

Responsibility: Irish Water, Commission for Regulation of Utilities

Regulation Costs

Work Life Balance Proposals

Employment policies that encourage a healthier work-life balance can benefit both businesses and employees. A good work/life balance can enable employees to feel more in control of their working life and can lead to:

- increased productivity
- lower absenteeism

⁶⁵ Establishing Irish Water's Non-Domestic Tariff Framework

- improvements in employee health and well-being
- a more positive perception of an employer
- greater employee loyalty, commitment and motivation
- a reduction in staff turnover and recruitment costs

Similarly, for business the policies can help to react to changing market conditions more effectively and meet customer demands (e.g. shift work, part-time work and flexitime can help business reduce unnecessary costs):

- meet seasonal peaks and troughs in businesses
- boost business competitiveness
- reduce staff turnover and minimise recruitment costs
- become recognised as a business that people want to work for and therefore can attract top talent.

In 2015, the European Commission published a road map “New start to address the challenges of work-life balance faced by working families”. This initiative to support Work-Life Balance for Working Parents and Carers sets out a comprehensive package of complementary legal and policy measures aimed at enabling parents and other people with caring responsibilities to better balance their work and family lives and to encourage a better sharing of caring responsibilities between women and men. This single comprehensive act hopes to provide transparency, simplification, legal certainty and enforceability of rights regarding the work life balance regulation across EU states. The Directive builds on the existing rights and strengthens them in places or introduces new rights while maintaining the level of protection already offered by the previous EU legislation.

The key measures regarding work life balance initiatives of the directives are:

- Maternity leave: non-legislative measures to enhance the enforcement of current legislation on dismissal protection, raise awareness on the dismissal of pregnant women and give policy guidance on facilitating successful transitions between maternity leave and employment (including breastfeeding facilities and breaks)
- Paternity leave: introduction of an individual entitlement of 10 working days, paid at a rate to be defined by member states
- Parental leave: revision of currently existing entitlement in order to provide for the right for flexible uptake (i.e., part-time, piecemeal), two months leave non-transferable between parents, and 1.5 months (seven weeks) of the non-transferable leave payable at a rate to be defined by member states
- Carers' leave: Member states shall ensure that workers have the right to carers' leave, to be defined in national legislation or practice
- Flexible working arrangements: right for parents of children up to a given age and carers to request flexible working arrangements for caring purposes, which employers are obliged to consider and respond to.

Discussions at EU level are likely to extend into 2019. While acknowledging the social and equality objectives of the current work/life balance proposals being developed by Government (domestically and within EU fora) without adequate research and consultation there is a danger that proposals could lead to unintended consequences for employers and employees in the public and private sector. From a national competitiveness perspective, it is vital that work/life balance policy is developed in a manner that ensures that changes do not negatively affect the incentive to work or impact on enterprise competitiveness.

Recommendation: Carry out and publish a comprehensive in-depth analysis on the impact of work life balance initiatives in Ireland to estimate the likely cost consequences for employers and the full exchequer costs.

Responsibility: Department of Justice and Equality

Paid Parental Leave

OECD research⁶⁶ suggests that in many countries, fathers account for less than one in five of those taking parental leave. The share of men among parental leave users is 40 per cent or more in some Nordic countries and in Portugal, but is as low as one in fifty in Australia, the Czech Republic and Poland.

A key policy objective of 2016 Programme for a Paternity Government Commitment was to significantly increase paid parental leave in the first year of a child's life. It was envisaged that this be achieved through the implementation of a new parental leave scheme during the infant stage to be operational in late 2019. It would pave the way for a gradual expansion of the scheme in the 2020-2022 timeframe. Once fully phased in, it is estimated that the introduction of seven weeks of paid parental leave will cost the exchequer €111 million per annum. In July 2018, an interdepartmental committee produced a report⁶⁷ on operationalising the commitment paid parental leave commitment. The committee recommended a phased approach as follows:

- Department of Justice and Equality to bring forward Heads of a General Scheme for Parental leave and benefit by the end of 2018 to pave the way for a new scheme to be designed by Department of Employment Affairs and Social Protection that will commence in late 2019
- Department of Employment Affairs and Social Protection to carry out a scoping study on the design of the proposed new scheme, taking account of the significant complexity in the mechanics of the scheme and progress on the Work-Life Balance directive
- Maintain the interdepartmental committee as a standing resource, to meet as required to contribute to the development of this policy sphere and also to engage with the progress of the Work-Life Balance directive.

The introduction of paid parental leave has the potential to encourage greater female market labour participation through changing attitudes to childcare and provide greater flexibility for employees in terms of work-life balance. It is, however, important to acknowledge that further extending paid statutory leave may also have a negative impact on business costs and productivity in some instances, particularly for small and micro enterprises. It is possible that employers will face an increased administrative burden in terms of business planning and ensuring that alternative arrangements, such as, temporary cover and reassignment of duties are in place to safeguard against cost of absence and a potential loss of productivity.

Without in-depth analysis, it is not possible to be definitive on costs or benefits of introducing paid parental leave. It could be that the impacts would be negligible or positive in terms of increased participation by women in the workforce. While the overall administrative costs are likely to be small in the case of temporary absences, they will likely be felt by individual employers, particularly SMEs. Any additional costs for employers will clearly depend on the rate of take up of paid parental leave. There are four main determinants of take-up rates – payment level, organisational and social culture, programme flexibility and the labour market (employer attitudes and perceived career advancement).

Recommendation: Carry out a comprehensive consultation with employer bodies regarding the implementation timetable of the increased paid parental leave program to maximise the positive potential impact on female participation and minimise the adverse impact of the programme on businesses.

Responsibility: Department of Employment Affairs and Social Protection, Department of Justice and Equality

⁶⁶ OECD: Paid Parental Leave - LESSONS FROM OECD COUNTRIES AND SELECTED U.S. STATES

⁶⁷ Report of the Interdepartmental Committee on operationalising the Programme for Government Commitment to increase paid parental leave in the first year of a child's life

Legal Costs

In general, legal services account for a relatively low proportion of the overall enterprise cost base but can be significant for those enterprises involved in legal disputes (e.g. cost of unfair dismissal cases, employment disputes, insurance claims, enforcing contracts). Nevertheless, as regulation in professional services sectors often limits the scope for competition by restricting entry, allowing for price fixing, granting exclusive rights to perform certain services, and restricting advertising and business structures, legal services and their cost have a bearing on Ireland's overall competitiveness. The cost of legal services also has significant knock-on effects on the cost of other vital business services – for example, on the cost of insurance. Throughout the recession, and relative to most other professions, prices for legal services remained flat and did not adjust downwards to the degree that might have been expected given economic circumstances. Nevertheless, according to the CSO, year on year, legal costs increased by 1.2 per cent in Ireland to Q1 2017 and were 3 per cent higher than in Q1 2010⁶⁸.

Ease of access to the Irish courts for SMEs is important for a healthy business environment. As many SMEs are operating with significant resource constraints and tight operational cash-flow, the judicial system must ensure that recourse to the courts does not threaten the viability of these entities. Delays on payments received for costs awarded through the courts can have a disproportionately negative impact on SMEs. SMEs that are involved in legal cases are often unable to access finance from banks during the court process, as the legal outcome is unknown. The length of commercial cases, and a lack of visibility on the likely timeframe involved, can disincentive small companies from availing of the judicial system, and undermine the equitable and robust legal environment for SMEs in Ireland. Further, the company examiner ship mechanism is a resource to firms seeking rescue and return to health, these are ailing, but in many cases potentially viable, companies.

Currently, data on legal service cost in Ireland is limited and the CSO's quarterly Services Producer Price Index is the only major data source which captures some of the legal costs faced by businesses. However, the database provides information only on solicitor fees and is based on a small number of respondents to the CSO survey. Further efforts are needed to expand the sample – ideally to capture data on barrister fees. To maximise the value of any statistics in this area a further breakdown of the figures by area of litigation and type of legal services – for example "legal services" as defined across several areas by the Legal Services Regulation Act 2015 is needed. Data on the legal costs of adjudicators and courts data could be augmented with wider data from several sources.

Recommendation: Develop a more comprehensive and representative data set on the cost of legal services drawing from several sources.

Responsibility: Central Statistics Office, Department of Justice and Equality

Notwithstanding that the Irish justice system is broadly well-regarded, it is also clear that the administration of justice, and the amount of time and resources required of those seeking to use it can be unduly burdensome. The World Bank Doing Business Report⁶⁹ finds that enforcing a commercial contract in Ireland costs more and takes relatively more time than the OECD average. Ireland is ranked 102 out of 190 countries and rates poorly relative to the UK (32nd). The report estimates that the total cost of contract enforcement in Ireland was 26.9 per cent of a claim, compared with 21.5 per cent in OECD high income countries. It also takes longer to enforce a contract in Ireland (650 days) than in the OECD (582.4 days). These figures are based on the ease or difficulty of enforcing a case study commercial contract. This is determined by following the evolution of a payment dispute and tracking the time, cost, and number of procedures involved from the moment a plaintiff files the lawsuit until actual payment. The World Bank reports the time taken for filing, service, trial, judgement and enforcement (including time for appeal). It is 650 days in Ireland compared to 437 in the UK, 395 days in France and 499 days in Germany. The World Bank report also highlights the

⁶⁸ CSO: Services Producer Price Index

⁶⁹ The World Bank Doing Business 2019

lack of an electronic complaint and claims filing systems for courts, the lack of electronic payment facilities for courts and the lack of electronic publication of judgements rendered in commercial cases at all court levels in Ireland.

Recent developments in procedures before the Commercial Court and in the new Court of Appeal and in court rules and procedures (e.g. for strategic infrastructure) are expected to contribute towards streamlining the filing, service, trial, judgement, enforcement and appeal aspects of the enforcement of a contract for businesses. Further enhancements under a suite of e-courts measures are in the pipeline, including supporting legislative amendments. The Mediation Act 2017 has also provided an alternative and more cost-effective dispute resolution channel. The report on the review of the organisational capability of the Courts Service⁷⁰ to serve the public through delivery of its mandate, was presented to the Courts Service, in September 2018. It includes findings and recommendations under each of the four high level themes of leadership, strategy, delivery and corporate support. The Courts Service is preparing a follow-up action plan in response to its recommendations.

Since 1995 the number of judges in the Supreme Court, the High Court, the Circuit Court and the District Court have increased by 29 per cent (2 judges, 2015), 95 per cent (18 judges); 54 per cent (13 judges) and 26 per cent (13 judges) respectively to meet the challenges of a changing and more demanding litigation world. The appellate capacity of the courts was increased in 2014 with the creation of the Court of Appeal which consists of 10 judges including the President. These reforms are expected to ameliorate the cost burden on business of legal and court proceedings.

Recommendation: Assess business conflict resolution systems in OECD countries with a similar judicial system, with a view to minimising the business conflict resolution time-frame in Ireland.

Responsibility: Department of Justice and Equality

The enactment of the Legal Services Regulation Act 2015 was a positive step due to its intention to provide a regulatory framework that will support greater levels of competition and transparency in legal services in Ireland. To date, the implementation of the Act has resulted in the establishment of the Legal Services Regulatory Authority (LSRA) in October 2016, which regulates the provision of legal services by both solicitors and barristers in an independent capacity. The LSRA is in the process of building its staffing resources and organisational infrastructure. Under its Strategic Plan 2018-2020, new business models for the delivery of legal services have been highlighted which will cover Legal Partnerships and Limited Liability Partnerships. The LSRA also intends to introduce and manage a complaint handling system for the public in 2019. It is intended that these initiatives will provide grounds for the development of greater competition and transparency in the sector. The competition-enhancing and cost-reducing provisions of the planned regulatory framework will only be achieved if stewarded fully and implemented in an orderly and timely manner.

A range of enhanced legal costs transparency obligations on legal practitioners in dealing with clients is also being rolled-out under the Legal Services Regulation Act 2015, along with the transformation of the Office of the Taxing-Master to that of the Legal Costs Adjudicators. The Council welcomes these measures, under a modernised operational and Governance structure, which are scheduled to come into operation by the end of Q1 2019. The Adjudicators' Office will make the reasons for its determinations publicly available in an official Register. It performs its duties by reference to a set of Legal Costs Principles set out, for the first time in legislation. This will provide additional data on the value of legal costs that come for determination and the reasons for their allowance or disallowance. The new transparency measures will empower clients further, including business clients, and should create some positive disincentive to increased legal costs. Grossly excessive legal fees will also be a matter of professional misconduct under the new regulatory regime.

⁷⁰ A reform initiative reviewing the capability of the Courts Service under Action 20 of the Civil Service Renewal Plan

Under its Strategic Plan 2018-2020, the Legal Services Regulatory Authority has set out the timelines for the coming into operation of a range of its functions. It will be in substantive operational mode by mid-2019. This will include the coming on stream of Legal Partnerships and Limited Liability Partnerships by the end of 2018, the coming into operation of the new legal costs transparency measures in Q1 2019 and the operation of the new professional conduct and public complaints architecture by end Q2 2019.

Separately, the new Office of the Legal Costs Adjudicators is also due to come into operation during Q1 of 2019. Under Part 15 of the Legal Services Regulation Act a new pre-action protocol is due to be introduced for use in medical negligence cases with a similar protocol also under consideration by the Cost of Insurance Working Group for use in personal injury cases. These measures are expected to have a combined positive impact on legal costs and on national competitiveness which will benefit business and enterprise.

Recommendation: Create a register of allowable legal costs and make it publicly available. Expedite the establishment of the Legal Costs Adjudicator body.

Ensure sufficient staffing and resourcing for the Legal Services Regulatory Authority.

Responsibility: Department of Justice and Equality

A group chaired by the President of the High Court, Mr. Justice Kelly, was established in 2017 to carry out a Review of the Administration of Civil Justice. The consultation on the review was completed on 30 June 2018. Once published, the Review Group will make recommendations for changes with a view to improving access to civil justice in the State, promoting early resolution of disputes, reducing the cost of litigation, creating a more responsive and proportionate system and ensuring better outcomes for court users. The Council welcomes this review. The main highlights of the review group's work in the context of improving access to justice are as follows:

- Reducing the cost of litigation including costs to the State
- Improving procedures and practices so as to ensure timely hearings
- Removing obsolete, unnecessary or over-complex rules of procedure
- Encouraging alternative methods of dispute resolution
- Reviewing the use of electronic methods of communications including e-litigation
- Examining the extent to which pleadings and submissions and other court documents should be available or accessible on the internet
- Identifying steps to achieve more effective outcomes for court users with particular emphasis on vulnerable court users including children and young persons.

The Council welcomes the work of the Review of Administration of Civil Justice, and supports its core objective of creating a more responsive and proportionate system and ensuring better outcomes for court users. The administration of the justice system, and in particular its efficiency, transparency of process and timeliness in decision making, has significant implications for enterprises and employees who rely on its functions.

The practicalities of using the courts, engaging with their administrative processes, and interacting with the justice system more broadly, is integral to the business environment in Ireland. For enterprises, their employees and the economy more broadly, the more usable, transparent and accessible our justice system is, the more confidence all actors can have in Ireland as a place to do business and be employed. Greater use of digital technology and the internet to facilitate courts, more explicit time lines on cases and guidance to judges on case management, increasing the number of judges and transparency of process and therefore costs, all have a role in delivering a more efficient system. The Council acknowledges the work that the Review is undertaking in this regard and await its recommendations.

Recommendation: Publish the findings of the Review of the Administration of Civil Justice to reduce the costs of litigation. Develop an action plan for implementation of the recommendations.

Responsibility: Department of Justice and Equality

Brexit related regulatory costs

Brexit could impose further regulatory costs to Irish businesses if the hard-Brexit scenario materialises. The re-imposition of border controls and customs between the UK and Ireland means additional costs of complying with rules of origin checks, import licence and other documentation requirements for Irish businesses. Research from the National Institute of Economic and Social Research (NIESR) suggests that the non-tariff barriers can raise costs to Irish business by 2-4 per cent. The increase in these non-tariff costs will depend on the regulatory differences between the EU and the UK. The implications of extra administrative costs and tariffs, standards and regulations and customs on the transport of goods between Ireland and the UK may negatively impact on imports from the UK and especially on exports and exporters' supply chains, and their capacity to competitively price products, not only in the UK but domestically and in other international markets.

Insurance Costs

Insurance costs are relevant to businesses of all sizes and in all sectors of the economy. The key insurance products for enterprise relate to commercial motor, property, professional indemnity, employer's liability and public liability insurance⁷¹. In recent years, there has been lot of volatility in pricing in the motor insurance sector for private and commercial vehicles. The CSO Consumer Price Index to October 2018 shows that motor insurance inflation has stabilised since the third quarter of 2016. On a year-on-year basis, in October 2018, motor insurance, motor car insurance and the insurance connected with all transport are down by 9.1 per cent, 9 per cent and 8.8 per cent respectively. Total claims costs per policy, for all claims types, based on projected ultimate costs, increased by about 2.7 per cent per year and 14 per cent over the period from 2011 to 2016.

Data from Central Bank of Ireland and Insurance Ireland in 2015 showed that the insurers operating in Ireland made an aggregate underwriting loss of €273 million in 2015. The data gap for recent years due to the introduction of Solvency II directive means it is difficult to provide a more up to date financial picture of insurance industry in Ireland. Though, we do not have complete picture of the industry, individual insurance companies' profitability figures show substantial increase in profitability on non-life insurance business in recent years⁷².

The NCC's Cost of Doing business 2018 report, highlighted a number of challenges in examining the insurance market. The Council is somewhat restricted in its statistical analysis on commercial insurance prices in the Irish and European markets due to the limited availability of information in the area. The nature and type of coverage provided in commercial insurance policies is non-homogeneous as the range of commercial insurance products is wide. Also, the final cost to the business or the price charged is generally not publicly available. It has not been possible to compare insurance costs internationally as these are highly dependent on a number of policy holders, policyholder behaviour, expectations of policyholders from their insurance provider, country specific laws and so on. Generally, insurance premiums are dictated by claims costs and increases in the cost of claims will inevitably lead to increases in premiums. There are, according to the insurance industry, a number of factors driving these increases, including previous underpricing and under-reserving; Solvency II⁷³ requirements; a reduction in investment income; fraud; increasing award

⁷¹ Life assurance and health insurance costs are not examined.

⁷² Annual Accounts

⁷³ Solvency II introduces increased regulatory reporting requirements and public disclosure requirements. The new requirements are intended to reduce the likelihood of an insurer failing and should also provide policyholders with increased protection.

levels as a result of the change in jurisdictions of the Courts; and increases in the cost of settling claims. This has contributed to the higher cost for business with increased insurance premium charges. A rigorous benchmarking exercise undertaken for the Second and Final Report of the Personal Injuries Commission, published in September 2018, has revealed that the level of general damages for soft-tissue (whiplash), injuries in this jurisdiction runs at a multiple of 4.4 times higher than award levels for claimants in England and Wales.

Cost of Insurance Working Group

The rising cost of insurance in Ireland has been an issue for motorists and businesses over the last number of years. A cross-departmental working group 'Cost of Insurance Working Group' was set up in July 2016 to tackle the rising cost of insurance. The group published its report on the Cost of Motor Insurance on January 10th, 2017.

The Report covered six main themes as follows:

- Protecting the consumer
- Improving data availability
- Improving the personal injuries claims environment
- Reducing the costs in the claims process
- Reducing insurance fraud and uninsured driving
- Promoting road safety and reducing collisions.

The Report made 33 recommendations with 71 associated actions to be carried with agreed timelines for implementation. The recommendations included actions to address:

- the lack of transparency in the claims area, through the establishment of a national claims information database which will be located in the Central Bank
- a better understanding of how personal injuries claims are calculated, through the establishment of a Personal Injuries Commission
- the increasing level of uninsured driving, through the establishment of a fully functioning database which will allow the Gardaí to check insurance compliance by the use of technology such as Automatic Number Plate Recognition
- suspected fraud, through the establishment of a database that will be funded by industry but held by an independent body and that will take into account data protection concerns.

The seventh quarterly report on the progress of the Cost of Insurance Working Group, published in November 2018, finds that two of the three actions, scheduled for delivery by Q2 2018, have been partially delayed. There are also a number of outstanding actions from previous quarters, most notably the establishment of the National Claims Information Database. The legislation to establish the database, the National Claims Information Database Bill 2018, is currently going through the Houses of the Oireachtas. However, progress has been made in relation to most of the other recommendations and actions. These include the publication of new Guidelines for the Reporting of Allegations of Fraudulent Insurance Claims to An Garda Síochána, (agreed between the Garda National Economic Crime Bureau and Insurance Ireland), and preparation of a draft report on the impact of changes in the court jurisdictional limits and the Pulse update, providing statistics by An Garda Síochána on insurance fraud investigations within the personal injuries area.

Recommendation: Expedite the implementation of the Cost of Insurance Group's recommendations from its first report 'Cost of Motor Insurance report' including the establishment of National Claims Information Database to improve the oversight of the industry and to enable the comparisons of insurance prices in Ireland and other jurisdictions.

Responsibility: Department of Finance, Central Bank of Ireland, Department of Justice and Equality

The Cost of Insurance Working Group's (CIWG's) report on the Cost of Employer and Public Liability Insurance was published in January 2018. This report⁷⁴ makes 15 recommendations with 29 associated actions to be carried out regarding the issue of employer and public liability insurance to ease the cost burden on employers. The Report's recommendations, covering three main themes, include actions and timelines for implementation. The three main themes outlined in the report are:

1. Increase Transparency: enhance levels of transparency and improve data sharing and collection processes
2. Review the level of damages in personal injury cases: request that the Law Reform Commission undertake a detailed analysis of the possibility of developing constitutionally sound legislation to delimit or cap the amounts of damages which a court may award in respect of some or all categories of personal injuries
3. Improve the personal injuries litigation framework: through a number of measures, namely:
 - ensuring potential defendants are notified in sufficient time that an incident has occurred in relation to which a claim is going to be made against their policy
 - tackling fraudulent or exaggerated claims
 - ensuring suitable training and information supports are available to the judiciary to assist in the fair and consistent assessment and awarding of damages in personal injury cases.

The Council welcomes the timely implementation of six out of the seven recommendations which were scheduled for delivery in Q2 2018. It is important that the remaining recommendation is implemented without further delay which will help to increase transparency in the insurance industry.

Recommendation: Implement the outstanding Cost of Insurance Working Group's recommendation that the Department of Justice and Equality bring to the attention of the judiciary in an appropriate manner the recommendation that consideration be given to training pending the enactment of the Judicial Council Bill.

Responsibility: Department of Finance, Central Bank of Ireland, Department of Justice and Equality

Personal Injuries Commission

The Council welcomes the establishment of the Personal Injuries Commission (PIC) in January 2017 as recommended by the CIWG. The PIC's First Report⁷⁵, published in December 2017, presents its findings on treatment and reporting on soft-tissue injury in Ireland and makes a number of key recommendations to significantly improve and enhance the personal injury claims environment in Ireland. The recommendations are as follows:

- A Standardised Approach to examination of and reporting on soft-tissue injuries should be adopted
- Training and Accreditation of medical professionals who complete personal injury medical reports should be promoted. This should become 'Best Practice' and training should be introduced at the CPD level
- Link future publications of the Book of Quantum to the newly standardised examination and reporting injury categories i.e. 'whiplash' soft-tissue injuries/ QTF WAD scales
- Relevant injury data should be collated and published by appropriate bodies.

The Second and Final Report, published on 18th September 2018, deals in the main with the benchmarking of Irish personal injury award levels with international awards against those in England and Wales and an examination of alternative compensation and resolution models in other jurisdictions. Independent consultants (KPMG) were appointed to work with the Commission on the benchmarking exercise. The Report also includes an update on the implementation of the recommendations from the Personal Injuries Commission's First Report.

⁷⁴ CIWG: Cost of Employer and Public Liability Insurance

⁷⁵ First Report of the Personal Injury Commission

Key findings of the Second and Final Report are as follows:

- The benchmarking exercise has revealed that the level of general damages for soft -tissue ('whiplash') injuries in this jurisdiction runs at a multiple of 4.4 times that of our nearest neighbours, England and Wales
- Need for introduction of Judicial Guidelines for judges
- The PIC believes that the imminent statutory establishment of the Irish Judicial Council provides a unique opportunity to seek and obtain such guidance for judges in measuring general damages for personal injury. Judicial Guidelines should lead to greatly increased levels of consistency in awards, increase the frequency of early resolution of claims and reduce costs. The PIC understands that the Judicial Council Bill will be enacted by the end of the year.

Some of the key recommendations of the Final Report are as follows:

- The Judicial Council, once established, should compile guidelines for appropriate general damages for various types of personal injury
- Develop and roll out, in all relevant locations, of best practice standard treatment plans that focus on recovery alongside awareness and promotion of best treatment practices regarding soft tissue injuries
- In the cases where an insurer deals directly with a claimant, no offer in settlement or payment of a personal injury claim should be made unless and until a medical report which details the nature, extent and prognosis of the injury
- Establish an Irish Garda Fraud Investigation Bureau along the lines of the Insurance Fraud Enforcement Department in the UK [IFED] without further delay to prevent fraud and exaggeration
- Insurers should step up their anti-fraud capacity through the recruitment of suitably trained personnel and the development of various technological means of combating fraud
- Insurers and other relevant parties should consider adopting the same internationally recognised injury coding system - the World Health Organisation's ICD-10 system
- Insurance industry to establish and publish a national medical research study on the prevention and management of soft-tissue ('whiplash') injuries.

Recommendation: Progress the implementation of the recommendations from the two reports of the Personal Injuries Commission.

Responsibility: Personal Injuries Assessment Board, Department of Health, Law Reform Commission, Department of Justice and Equality, the Garda Commissioner

Personal Injuries Assessment Board (Amendment) (No. 2) Bill 2018

The Personal Injuries Assessment Board (Amendment) (No.2) Bill 2018 was published on 13th August 2018 and is currently progressing through the Houses of the Oireachtas. The purpose of the Bill is to amend the existing legislation to strengthen the Personal Injuries Assessment Board (PIAB) in terms of operational issues to ensure greater compliance with the PIAB process and encourage more claims to be settled through the PIAB model.

The Bill addresses the recommendations in the CIWG Motor Report relating to cases of non-cooperation, such as non-attendance at medicals and failure to provide details of special damages or loss of earnings.

The content of the Bill was informed by the outcome of a public consultation on the PIAB Acts held in June 2014 and the recommendations from the Cost of Insurance Working Group Motor Report (January 2017).

The Book of Quantum

Compiled in 2004 on behalf of the Personal Injuries Assessment Board by independent consultants, the Book of Quantum is an aid to the assessment of compensation to which a person may be entitled to in Ireland. In accordance

with the Civil Liability and Courts Act 2004, the Courts must have regard to the Book of Quantum in personal injury cases.

The Book of Quantum was first published in 2004 and updated in 2016. Under the Personal Injuries Assessment Board (Amendment) (No.2) Bill 2018 it is proposed that the Book of Quantum be revised every three years or sooner or if the Board decides it is necessary. The Personal Injuries Commission's first report recommended that future updates of the Book of Quantum include the newly standardised examination and reporting injury categories for soft-tissue (whiplash) injuries, as in the Quebec Task Force Whiplash Associated Disorder scale. The Commission's Second and Final Report recommends that the Judicial Council, when established, be requested by the Minister for Justice and Equality to compile guidelines for appropriate general damages for various types of personal injuries. The Commission recommends review of the guidelines at regular intervals. As a starting point the Commission recommends a judicial recalibration of the existing Book of Quantum Guidelines. When the Judicial Guidelines are in place, it is intended that they will supersede the Book of Quantum. The intention for the future is that the Judicial Council will take ownership of the Judicial Guidelines for personal injury compensation.

Recommendation: Implement the recommendation from the Second and Final Report of the Personal Injuries Commission regarding the compilation of judicial guidelines for personal injury compensation by the Judicial Council, when established under the Judicial Council Bill.

Responsibility: Department of Justice and Equality

Access to Finance

Finance is the life-blood of an economy and a sustained job-rich economic growth hinges on a healthy credit market. Access to competitively priced sources of finance facilitates enterprises to establish, survive, improve productivity and ultimately scale up. Limited or costly credit damages the environment for entrepreneurship, scaling and investment, and amounts to a competitive disadvantage for enterprises.

The concentrated lending market and higher credit risk premiums are important factors when determining the cost of credit in Ireland. According to the Central Bank ⁷⁶, the Irish SME lending market is highly concentrated with the three main lenders accounting for 86 per cent of market share. As of Q1 2018, the annual gross new lending to non-financial, non-real estate SMEs totalled €3.7 billion, 2.7 per cent higher than Q1 2017 and 31 per cent higher than Q1 2016. The table below presents annual gross new lending to non-financial, non-real estate SMEs since 2014.

New SME Lending

Year (Q1)	Gross Lending (Euro million)	Change
2014	1,999	-
2015	2,622	31.17%
2016	2,861	9.12%
2017	3,651	27.61%
2018	3,749	2.68%

In terms of annual growth rates for credit in the SME sectors, the Construction sector recorded the largest credit decline. The annual credit growth by SME sector is presented in the table below.

⁷⁶ Central Bank of Ireland, SME Market Report, 2018

Annual SME credit growth (%) by sector

SME Sector	2015	2016	2017	2018
Construction	-6.9	-6.1	6.9	-9
Primary Industries	-7.4	-3.3	0.6	3
Manufacturing	-5.2	-10.7	-2.8	-5.1
Wholesale, Retail, Trade, Repairs	-4	-11.3	-6.2	-6.4
Hotels and Restaurants	-10.8	-12.9	-5.8	3.7
Business and Admin. Services	-9.6	-10.7	-3.3	2.1

The Department of Finance SME Credit Demand Surveys⁷⁷ shows that up to March 2018, year on year, credit demand went up among all micro, small and medium enterprises. Credit demand was highest among the medium enterprises.

Requested by Company Size								Demand
	March 2012 (%)	March 2013 (%)	March 2014 (%)	March 2015 (%)	March 2016 (%)	March 2017 (%)	March 2018 (%)	March 2018 Vs 2017
Micro	30	36	29	26	23	15	21	▲ (+) 6%
Small	43	43	40	35	31	22	27	▲ (+) 5%
Medium	42	41	37	40	21	25	32	▲ (+) 7%

Source: Department of Finance

The Credit Demand survey is the most comprehensive survey of SME Credit Demand in Ireland, covering over 1,500 respondents and capturing a full picture of the SME landscape in Ireland, with micro enterprises, small-sized enterprises and medium-sized enterprises accurately represented as per the percentage make-up of SMEs in Ireland.

Some of the key findings of the Credit Demand Survey are follows:

- Significant increase in the numbers of SMEs that believe banks are lending (61%), up from March 2017 (45%);
- Increase in positive business sentiments among companies of all sizes with 55 per cent of SMEs expecting the business climate to improve in the next six months – up from 49 per cent in March 2017
- The demand for bank credit increased by 6 points year-on-year to 26 per cent, and is up three points from Sept 2017. This represents the first consecutive increase in demand since the series began. Demand is now on a par with March 2016. Demand had been consistently falling from a high of 40 per cent in March '13 to its lowest level of 20 per cent in March '17
- For the fifth year in a row, there was an increase in the reported number of companies making a profit, with a growth from 40 per cent in March 2013 to 64 per cent in March 2018
- SME finances also continue to improve with 87 per cent (+3%) of SMEs reporting stable or increased turnover;
- 88 per cent of applications for credit were approved, which is an increase from 85 per cent on the previous survey wave in Sept 2017
- The average cost of credit on outstanding loans was 5.06 per cent, which represented a slight decrease and is a continuation of a downwards trend.

⁷⁷ Department of Finance: SME Credit Demand Survey (OCT 2017 – March 2018)

Ireland is ranked 15th in terms of access to Finance in 2017 relative to the best performer, the United Kingdom, and the worst performer, Greece, according to the European Investment Fund (EIF) – the SME access to Finance Index (ESAF). Ireland's ranking has improved by six places since 2013, the second largest improvement after Spain. The latest ECB/EC SAFE Survey⁷⁸ shows, the share of Irish SMEs ranking access to finance as a 'high' importance problem for their enterprise is 35 per cent, up from 29 per cent in September 2017. This compares to 36 per cent of SMEs in EA2⁷⁹ countries and 27 per cent in EA1 countries⁸⁰. In terms of SMEs perceptions of bank credit availability, the net improvement (the share of improvement minus the share of deteriorations) in Ireland is 21 per cent, compared to 23 per cent in EA2 countries and 18 per cent in EA1 countries.

In March 2018, the ECB/EC Safe Survey data shows the following:

- Irish SMEs applied for loans and overdrafts at about half the rate (15 %) of SMEs in comparator countries (EA2 countries- 31%, and EA1 countries - 29%)
- Irish SMEs were the most discouraged borrowers (did not apply due to fear of rejection) at 9 per cent compare to EA2 countries (6%) and EA1 countries (4%)
- In terms of rejection rates on loan/overdraft applications, the rate was highest in Ireland (11.7%) compared to EA2 countries (5.8%) and EA1 countries (4.4%)
- Though highest among the comparator countries, the rejection rate in Ireland has fallen slightly since September 2014 (13 %).

Similarly, the annual European Investment Bank survey⁸¹ (2017) suggests that while bank loans remain the main source of external finance for investment activities (41%) in Ireland, their share fell compared to 2016 (57%). The share of bank loans is also below the EU average of 56 per cent.

In terms of Venture Capital (VC), data from Irish Venture Capital Association (IVCA) shows strong growth in Venture Capital funding in recent years with VC funds raised in Ireland up by 362 per cent over the period 2011-2017, reaching €994 million in 2017. In 2011, the average amount an SME raised was €1.7 million, increasing to €4 million in 2016. However, in September 2018 the IVCA reported the first fall in VC funding since Q4 2011. In the first half of 2018, it fell by 9 per cent to €453 million. International comparisons by the OECD places Irish VC as a share of GDP at fifth out of thirty-three countries (behind Israel, the United States, Canada and South Korea). Ireland also has the highest share in the EU in 2016. Expressing Irish VC as a share of GNI* ranks Ireland in fourth place among OECD countries. The investor profile of VC in Ireland suggests a majority of funding (63 %) was sourced internationally in 2017. International VC for Irish SMEs has increased exponentially from €65 million in 2011 to €548 million in 2016. Irish SMEs obtaining VC funding were concentrated in high-technology sectors, such as, Software (28 %), Life Sciences (23 %), and FinTech (18 %). VC fund are used primarily to expand investment and increases scale in existing SMEs rather than funding new firm creation such as seed, start-up and early stage funding in Ireland. Though funding sources have increased for Irish SMEs in recent years, further diversification of the lending market and increasing levels of private equity, crowdfunding and venture capital funding remains important to reduce the cost of credit for SMEs in Ireland.

The cost of credit for businesses in Ireland remains high compared to the euro area average. Central Bank data shows that interest rates on a range of new business loans in Ireland have been consistently higher than equivalent euro area rates which puts Irish businesses at a competitive disadvantage. The divergence is particularly noticeable for loans of up to €0.25 million, where the interest rate on new business loans in Ireland (5.2%) was more than double the euro area average rate (2.6%) as of March 2018⁸². The weighted average interest rate for new SME loans declined by 0.12 per cent in Q1 2018 relative to a year earlier, driven by a 0.41 per cent decline in interest rates in the real estate sector. The

⁷⁸ SAFE October 2017 to March 2018

⁷⁹ EA2 countries: Portugal, Italy, Spain and Greece

⁸⁰ EA1 countries: Austria, Belgium, Germany, Finland, The Netherlands and France

⁸¹ EIB Investment Survey, Ireland Overview, 2017

⁸² Central Bank of Ireland, SME Market Report, 2018

interest rates were higher for most of the sectors in Q1 2018. Among the sectors with the highest rates were primary industries, construction, and wholesale/retail. Rates on new drawdowns to construction SMEs, at 4.57 per cent, remained significantly higher than rates in the real-estate sector, at 2.96 per cent. Rates for both sectors have decreased significantly in recent years⁸³. The following table shows the interest rate faced on new SME lending by sector:

Interest rate per annum (%) on new gross lending (by SME sector)

	Mar-15	Mar-18
Primary Industries	5.45	5.09
Manufacturing	4.4	4.04
Electricity, Gas, Steam and Air Conditioning Supply	3.17	3.23
Construction	6.62	4.57
Wholesale/Retail Trade & Repairs	5.02	4.37
Transportation and Storage	6.22	4.7
Hotels and Restaurants	4.55	3.41
Information and Communication	3.85	3.96
Financial Intermediation (Excl. Monetary Financial Institutions)	6.18	4.07
Real Estate Activities	4.23	2.96
Business and Administrative Services	5.18	4.92
Other Community, Social and Personal Services	5.75	5.97
Education	4.82	5.45
Human Health and Social Work	5.23	3.55

Source: Trends in Business Credit and Deposits: Q1 2018, Central Bank

To reduce the cost of finance, increasing competition and choice in the market is essential. Government policy should focus on ensuring that all viable SMEs have access to an appropriate supply of credit from a diverse range of bank and non-bank sources, ranging from traditional bank finance, to equity and venture capital, to alternate sources of finance such as peer-to-peer lending. Designing and implementing effective regulation, which balances financial stability, investors' protection and opens new financing channels for SMEs, is also vital for sustainable enterprise growth.

Recommendation: Broaden the range of financing options available to Irish SMEs, including available European supports, such that the risk is priced appropriately. Continue to develop the policies and appropriate regulatory framework thereby reducing the cost of finance for SMEs.

Responsibility: Department of Finance, Department of Business, Enterprise and Innovation, Central Bank of Ireland

⁸³ Trends in Business Credit and Deposits: Q1 2018, Central Bank

Strategic Banking Corporation of Ireland (SBCI)

Established in September 2014, the SBCI is a state supported SME funding company whose goal is to deliver lower cost finance and risk sharing to on-lenders in the SME market in Ireland. The SBCI aim is to make sustainable, flexible and appropriately priced finance available to viable Irish SMEs and support investment in them that encourages growth and facilitates employment. It does not lend directly to SMEs, rather it channels low cost financing from funders, including the European Investment Bank (EIB) and German promotional bank Kreditanstalt für Wiederaufbau (KfW), through lending partners, known as on-lenders. The SBCI currently has seven on-lending partners, three banks and four non-banks.

SBCI-supported lending for end 2017 stood at €920 million, it supported 22,965 SMEs and 119,393 jobs in 2017⁸⁴. At end 2017, SMEs had drawn €787 million (excluding the Agriculture Cashflow Support Loan Scheme) from the scheme, an increase of 45 per cent on 2016. The average loan size was €37,300 and the average interest rate was 4.4 per cent. The SBCI concluded its first risk-sharing product, the Agriculture Cashflow Support Loan Scheme (ACSL) in 2017, in conjunction with the Department of Agriculture, Food and the Marine. The €150 million scheme targeting agriculture sector was fully subscribed with €144 million drawn by 4,203 SMEs with an average loan size of €33,912 and an interest rate of 2.95 per cent.

The SBCI reports that the agriculture sector was the biggest user of SBCI loans, accounting for 26.1 per cent of the total loans. In terms of the purpose of loans, 86 per cent of loans supported by the SBCI were used by SMEs to invest in growing their business. A further 12 per cent were for working capital and 2 per cent are used for refinancing loans owed to a lender exiting the Irish market. The Council supports SBCI's commitment to further broadening its distribution capability and market coverage by adding new on-lenders and working to develop innovative products, thereby supporting SMEs and driving competition in the SME finance market.

Recommendation: Broaden the SBCI's products and the number of on lenders to further finance the growth of SMEs.

Responsibility: Department of Finance, Strategic Banking Corporation of Ireland

Credit Guarantee Scheme (CGS)

The Credit Guarantee Scheme (CGS) is operated by SBCI on behalf of the State and its main aim is to improve bank lending to SMEs. Under the scheme, the state acts as a guarantor to reduce the risk profile of the borrowers. The CGS facilitates lending to viable SMEs, which would otherwise be declined by lenders (due to insufficient collateral for the additional facilities) and expansionary SMEs which due to their sectors, markets or business model are perceived as a higher risk under current credit risk evaluation practices. Since its inception in October 2012, the scheme has supported 587 SMEs with loan totalling €93.4 million and have helped to support 3,666 jobs. The Council welcomes the launch of a new version of the CGS (June 2018), which will build on the supports to SMEs that have been provided by CGS 2012 and will encourage even greater participation. The inclusion of additional features, such as, an increase in the level of guarantee to participating financial providers from 75 per cent to 80 per cent on qualified loans to SMEs, should further broaden the SME participants seeking to grow and develop. The updated CGS's key features include facilities of €10,000 up to €1,000,000; terms of up to 7 years; term loans, demand loans and performance bonds.

Recommendation: Drive awareness of the Credit Guarantee Scheme among enterprise.

Responsibility: Strategic Banking Corporation of Ireland, Department of Business, Enterprise and Innovation

⁸⁴ SBCI Annual Report & Financial Statements 2017

Brexit is likely to pose major challenges for Irish businesses, especially those directly trading with the UK. It is important to develop the most appropriate credit support system for businesses to help them deal with these challenges. These would include vulnerable but viable businesses dealing with the changing exporting environment and businesses affected by import substitution who are investing in diversification, innovation and market development. Encouraging companies to take action to identify their individual areas of exposure and to take positive steps to address them will be important in building a strong enterprise sector in Ireland. The Council welcomes the Government's current and planned schemes (Brexit Loan Scheme, Business Finance Advisory Hub) to help Irish SMEs prepare to withstand Brexit related shocks.

Brexit Loan Scheme

The Brexit Loan Scheme provides affordable financing to businesses to help them achieve strategic transformation in preparation for the post-Brexit environment. The scheme, designed to incorporate affordable pricing and reasonable terms and conditions, is delivered by the Strategic Banking Corporation of Ireland (SBCI) through commercial lenders and makes €300 million available to eligible businesses with up to 499 employees at an interest rate of 4 per cent or less. Businesses must submit a business development plan indicating the means by which they intend to innovate, change or adapt to mitigate their Brexit challenges. Loans range from €25,000 to €1.5 million per eligible business, with unsecured loans up to €500,000 and terms ranging from one to three years. Additional longer-term financing was announced in Budget 2019 to help businesses prepare for the challenges posed by Brexit. The new longer term €300 million Future Growth Loan Scheme will provide businesses the opportunity to borrow for up to ten years to support capital investment. The scheme is operated by the SBCI through participating finance providers (Bank of Ireland, Ulster Bank and AIB).

Future Growth Loan Scheme

Additional longer-term financing was announced in Budget 2019 to help businesses prepare for the challenges posed by Brexit. The Future Growth Loan Scheme is being developed by the Department of Business, Enterprise and Innovation and the Department of Agriculture, Food and the Marine (DAFM) in partnership with the Department of Finance, the Strategic Banking Corporation of Ireland (SBCI) and the European Investment Fund (EIF). Through a counter-guarantee from the EIF, the Future Growth Loan Scheme will make a fund of up to €300 million available to eligible Irish businesses for terms of 8-10 years.

The scheme will be available to eligible Irish businesses, including those in the primary agriculture and seafood sectors, to support strategic, long-term investment in a post-Brexit environment. Finance provided under the scheme will be competitively priced and have favourable terms, including the interest rate, with loans up to €500,000 unsecured. The scheme is expected to launch in early 2019.

Business Finance Advisory Hub

The Department of Business, Enterprise and Innovation is working towards the development of the 'Business Finance Advisory Hub' unit which will assist SMEs in making informed funding and investment decisions. Once operational, the hub will assist businesses to make more informed financial decisions, building on existing supports available from bodies such as Enterprise Ireland (EI) and Local Enterprise Offices (LEOs). The advisory hub will serve to ensure that SMEs are well informed of their funding and financing options, and will strengthen their financial planning skills. It will also assist them to avail of existing supports, as well as ensuring that they are well positioned to take advantage of the advice and guidance offered by agencies including Enterprise Ireland, the Local Enterprise Offices and the Credit Review Office. The Department of Finance Credit demand survey (Oct 2017- Mar 2018) shows of those that applied for credit to a pillar bank, only 54 per cent were informed of their right to a review by the Credit Review Office, therefore

increasing the awareness of the role of the Credit Review Office will be useful. In addition, the Business Finance Advisory Hub will also focus on business development for a post-Brexit environment.

Recommendation: Establish the Business Finance Advisory Hub. Encourage banks to increase awareness of the role of the Credit Review Office among SMEs.

Responsibility: Department of Business, Enterprise and Innovation, Department of Finance

The National Competitiveness Council welcomes the announcement by the Minister of Finance in Budget 2019 that the Department of Finance and the Central Bank will commence work on the regulation of crowdfunding in Ireland in order to broaden the concentration in the SMEs finance market.

Seed & Venture Capital Scheme (SVC)

Venture Capital funding represents another alternative to traditional bank-sourced finance. The main objective of the Seed and Venture Capital Scheme is to increase the availability of risk capital for SMEs to support economic growth through the continued development of the SVC sector in Ireland to achieve a commercially viable and sustainable sector. Over the course of four programme periods since 1994, Enterprise Ireland has committed €510 million, which using a co-investment model, has raised a total of €1.19 billion in Seed and Venture Capital (SVC) funding. Budget 2019 commits a new round of €175 million for the SVC scheme.

Financial innovation and regulation

In order to expand the range of sources of finance, new and innovative approaches to encourage start-ups and to develop financial products should also be examined. This could involve developing a closer connection between firms and the regulatory system to provide greater assistance in guiding firms through the regulatory landscape. For example, the Financial Conduct Authority (FCA) in the UK has, as part of its mandate, has a specific role in promoting effective competition in the financial services sector. The initiatives pursued by the FCA have included an Innovation Hub, which provides help for start-up businesses in applying for authorisation, and dedicated contact points post-authorisation, and a Regulatory Sandbox, which allows businesses to test new and innovative products before launching them in the market. Furthermore, the FCA has, in collaboration with 11 financial regulators and related organisations, announced the creation of the Global Financial Innovation Network (GFIN), building on the FCA's proposal earlier in 2018 to create a 'global sandbox' and having consulted on the key features of that network. This initiative suggests there is a growing appetite among regulators to take a global approach and facilitate cross-border activities.

The Central Bank recently set up an Innovation Hub and an engagement programme with FinTech companies, which includes roundtable events in 2018 to discuss issues relevant to FinTech and innovation.

Recommendation: Consider how the regulatory system in Ireland can improve its understanding and formal support for start-up and established FinTech companies.

Responsibility: Department of Finance, Central Bank of Ireland

Childcare Cost

Access to affordable and high-quality childcare is important to create an equitable society, a thriving economy and sustainable communities. Affordable quality childcare can generate many vital and long-lasting benefits for children, women, families, and for the economy and society at large. The cost of childcare is one of the major indirect costs to business. It can potentially lead to difficulties in attracting and retaining staff and the loss of skilled labour in the economy, which would affect participation rates.

The average costs of childcare in Ireland varies significantly across regions and the type of childcare used. According to the ESRI and Pobal (September 2018) report⁸⁵ childcare costs were higher in Dublin, East Leinster and other urban areas in 2017. The average hourly cost of childcare for a single child depending on the type of childcare used is as follows:

- For a childminder in the family home: €6.13
- For a childminder outside the home: €4.76
- For centre-based care: €4.82 (average)

The above report found that, mothers who face high childcare costs work fewer hours. 10 per cent higher childcare costs were associated with 30 minutes less paid work by mothers per week. Mothers with higher childcare costs at age three tended to work fewer hours when their child was aged five. Between the ages of three and five years almost half of mothers (45%) changed their employment hours, including 9 per cent who left employment, and 7 per cent who entered employment.

The high costs and limited accessibility of quality childcare services have been attributed to childhood poverty and lower female labour market participation rates by the European Commission⁸⁶. For couples, earning 167 per cent of the average wage, Ireland is the second most expensive in the OECD in terms of childcare-related expenses (as a percentage of average wage - this data takes account of childcare fees, child benefit and relevant tax reductions). For lone parents earning 67 per cent of the average wage, Ireland is the most expensive OECD location. CSO statistics⁸⁷ (Q3 2016) show that between 2007 and 2016, there was a fall in the number of children using parental childcare where one parent is at home minding children. The decrease is largely among primary school children (from 81% to 74%) than among pre-school children (from 64% to 62%). The average household weekly expenditure on paid non-parental childcare is €155.60. This is an increase from 2007, when the corresponding figure was €123.20. The average weekly cost per child is highest in Dublin, at €150.00 per child per week. It is lowest in the South-East at €83.00 per child per week.

In budget 2017, the Government outlined plans to roll out a Single Affordable Childcare Scheme providing childcare subsidies with the aim of replacing the existing non- statutory childcare schemes - Community Childcare Subvention (CCS⁸⁸), Training and Employment Childcare programmes (comprising the After-School Childcare), Childcare Education and Training Support, and Community Employment Childcare. Enhanced measures introduced in September 2017 established a universal measure for parents of children aged from 6 months to three years. A universal subsidy of up to €80 per month was provided towards childcare costs for parents working full time, and the rates of universal childcare payment for under three years olds were increased.

The enactment of the Childcare Support Act in July 2018 paves the way for the introduction of the new Affordable Childcare Scheme which will replace the above four existing, non-statutory targeted childcare schemes. The scheme will provide childcare subsidies to parents of pre-school as well as school-age children and will also cover childcare costs during term-times and holiday periods. Both universal and targeted subsidies will be provided towards the cost of childcare. The targeted subsidies are payable for children from 6 months up to 15 years of age dependent on the investment available and on a family's income. The scheme also involves a continuation of the universal subsidy to be payable for children between the ages of 6 and 36 months (or until the child qualifies for the free pre-school programmes, if later) who are availing of childcare by a Tusla registered childcare service. The universal subsidy will not be means -tested and will be available for families at any income level.

It is vital that the Government continues to monitor and invest in the childcare schemes to reduce the cost of quality childcare in Ireland. Parents in Ireland spent an average of 12 per cent of their disposable income on childcare for a

⁸⁵ ESRI: Maternal employment and the cost of childcare in Ireland

⁸⁶ European Commission, Commission Staff Working Document, Country Report Ireland 2016, SWD (2016) 77, February 2016

⁸⁷ CSO QHNS

⁸⁸ The CCS Programme supports disadvantaged parents, parents in low paid employment and parents in training or education, by enabling those who qualify to avail of reduced childcare costs at participating community/not-for-profit childcare services.

three-year-old in 2017. The financial burden was higher for lone parents and low – income families, who spent an average of 16 per cent and 20 per cent of their disposable income on childcare respectively. The Council welcomes the policy development in childcare provision in recent years and awaits the roll out of the Affordable Childcare Scheme. Improved access to quality and affordable childcare has the potential to facilitate a positive impact on labour market participation rates by assisting parents to return to work and training. However, the subsidy level and periodic cost-benefit analysis of the scheme will need to be conducted to assess the impact of the scheme on childcare provision costs, on labour market behaviour, and on the level and quality of service provision.

Recommendation: Roll out the Affordable Childcare Scheme and assess its impact on childcare costs into the medium term.

Responsibility: Department of Children and Youth Affairs

Theme 3: Narrowing the productivity gap between the “best and the rest”

Introduction

Productivity is a key driver of national competitiveness. Productivity growth enables Irish firms to compete successfully in international markets by facilitating output to be produced in a more efficient and effective manner.

Measures of productivity are important barometers of the competitiveness of firms, sectors and economies. On average over the period 2006-2016, Ireland’s labour productivity growth rate (4.6%) has been well above most Member States and the OECD (0.9%). Expressed as a proportion of GNI*, Ireland’s productivity also remains above the OECD average, although below countries such as France, Germany and the US. However, Ireland’s performance has been greatly affected by shifts in the composition of employment and by the influence of a few high value-added sectors on output. Ireland’s growing base of multinationals in high value-added, capital intense, sectors (particularly a small cohort of manufacturing and ICT firms) disguises to a degree underperforming sectors and boosts Ireland’s productivity levels. Available data shows that there is considerable heterogeneity in labour productivity growth across economic sectors and between firms within sectors.

Narrowing the productivity gap between the most productive firms and lagging firms is important for achieving sustainable growth prospects in the indigenous sector. The NCC considers supporting an increase at firm level, in terms of investment and utilisation of knowledge based capital, particularly organisational, process and marketing innovation, as crucial for enhancing the productivity performance of the indigenous sector. Improving management practices, skills and labour force quality at all levels, and facilitating a continuous flow of new business start-ups that can survive and thrive in international markets, are also vital to strengthen the productivity base.

The presence of *intensive innovative activity* at firm level is a vital component in securing higher productivity growth. Economy-wide productivity and employment gains are generated when innovations are diffused and widely adopted, making the strengthening of investment in R&D and technology diffusion mechanisms a key policy priority. New firms are also important for improving productivity and innovation performance.

New start-ups, are more inclined to engage in more radical innovations, create new products and services but also stimulate improved performance in existing businesses. From a policy perspective, therefore, facilitating entrepreneurship, start-ups and firms of scale must be cultivated as the drivers of productivity growth in the long run. *Highly proficient leadership*, with ambition, vision and strong management teams, is critical for establishing the environment that facilitates an innovative culture.

Achieving sustainable productivity growth depends on the availability of work-ready *skills and talent*. Harnessing the potential of new technology requires a range of specialist skills across all sectors and continuous investment and initiatives in upskilling the workforce. Policies that facilitate skills adaptability are important, particularly to those job roles exposed to digitalisation.

Targeted and timely capital expenditure on infrastructure is one of the main tools by which government can enhance productivity. World class infrastructure strengthens the competitiveness of indigenous enterprises and enhances Ireland’s position as an attractive location for talent and inward investment. To ensure the success of Ireland’s National Planning Framework, it is crucial that the policies contained within it are aligned with and supported by new and improved policy co-ordination and oversight arrangements across all levels of government and that the measures underpinning the implementation of the National Development Plan are prioritised across Government.

Policy Challenges and Recommendations

Narrowing the Productivity gap

The CSO publication, *Productivity in Ireland 2016*, indicated that in 2016 productivity growth in both the foreign and the domestic sector was 2.2 per cent. On average over the period 2006-2014 productivity growth in the foreign-dominated sector has been higher (6.2%) than the domestic sector average (2.7%). Labour productivity in the foreign dominated sector grew by over 23 per cent in 2011, and 78 per cent in 2015. The latter growth was due largely to increases in GVA, arising from the 'on-shoring' of economic activity associated with an increase in the size of Irish capital stock arising from corporate restructuring and balancing sheet reclassification in the multinational sector, and growth in aircraft leasing activity.

Notwithstanding the persistent decline in productivity growth globally in the last decades, the OECD⁸⁹ has noted that a small group of firms experienced robust productivity growth in the 2000s. There is no evidence suggesting that the gap between the frontier and lagging firms is narrowing, indicating that knowledge and technological advances are not sufficiently diffused from the "best" to the "rest".

Research published by the Department of Finance⁹⁰ in 2018 also confirms the OECD findings that although most firms experienced a decline in productivity in recent years, in some high value-added sectors in Ireland, a small group of firms are the dominant source of productivity growth. The research indicated that the productivity gap between the highly productive firms and the lagging firms is substantial and the gap has widened in the last years in both manufacturing and services. The results are also consistent for both labour productivity and multi-factor productivity. In Ireland, foreign owned firms tend to be more productive than the indigenous firms. Productivity spillovers to local firms are limited. The variation in productivity across manufacturing and market services is driven by variation in firm level productivity within individual sectors, (for instance, pharmaceuticals and chemicals in manufacturing), rather than productivity differences between sectors. This reflects a high degree of firm heterogeneity amongst firms within given sectors, which is high compared with other OECD countries. The research suggests that the top 10 per cent of firms account for 87 per cent of value added and 73 per cent of employment in manufacturing. In services the contributions to value added and employment from the largest firms are higher than manufacturing, with a share of approximately 94 and 87 per cent, respectively. This shows Ireland's exposure to firm specific shocks. The OECD Economic Survey on Ireland 2018, also paints a contrasting picture, showing that foreign-owned companies outperform local businesses by a wide margin and that this margin is getting wider.

Supporting an uplift in productivity performance at firm level across all sectors in Ireland remains a significant competitiveness challenge across a range of policy spheres. Narrowing the productivity gap between the most productive firms and lagging firms is particularly important for achieving sustainable growth prospects in the indigenous sector.

The OECD warns that as the global competition for attracting multinationals is strong, and given the mobility of foreign-owned firms, the sustainability of Ireland's economic model could be dependent on the performance of indigenous enterprise. The OECD's Survey of Ireland 2018 suggests that unblocking the productivity potential of local businesses could be achieved by further improving the enabling environment for them to succeed and grow. The OECD tables several specific recommendations in relation to measures that could bring improvements in Irish competitiveness and productivity performance.

The NCC considers it important that Government Departments work to progress agreed policy recommendations arising from the OECD Review.

89 D.Andrews, C. Criscuolo and P.Gal, *Frontier firms, technology diffusion and public policy: micro evidence from OECD countries*, 2015

90 Department of Finance, *Patterns of firm level productivity in Ireland*, 2018

OECD recommendations to encourage sustainable productivity growth

Enhancing business dynamism

Key recommendations:

- Reduce the price of construction permits and registration of property charged by the relevant authorities.
- Replace local business tax with a broad-based land tax.
- Permit the introduction of new forms of legal businesses.
- Systematically collect information on the performance of existing public assets to better enable transparent, evidence-based, prioritisation of future infrastructure projects.

Other recommendations:

- Reduce the administrative burden to obtain permits and licences for start-ups by fully developing the new on-line Integrated Licence Application Service.
- Develop the out-of-court debt resolution mechanisms, making it easier for the debtor and creditor to reach agreements by reducing stringent requirements.

Enhancing the allocation of financing

Key recommendations:

- Introduce guidelines for banks that specify circumstances under which personal guarantees from businesses should not be sought.
- Further develop alternative financing platforms for young businesses.

Other recommendations:

- Consider reforming the Employment and Investment Incentive Scheme, a tax relief for equity investors, to support the transition of innovative firms into the public stock exchange.
- Scale up the Microenterprise Loan Fund Scheme so that public financial support reaches firms in early stages and in a wide range of sectors.
- Focus the Credit Guarantee Scheme on overcoming market failures that young firms typically face rather than supporting mature firms.

Maximising knowledge spillovers

Key recommendations:

- Increase the use of direct public support for business research and development such as grants, loans and loan guarantees.
- Increase the share of funding dedicated to training for those in employment and financial support to workers undertaking postgraduate courses.

Other recommendations:

- Raise the participation of local firms in the supply chains of foreign-owned enterprises by giving Local Enterprise Offices a more active role in identifying potential supply linkages.
- Evaluate the extent to which non-compete agreements are constraining workers moving to local firms.

Source: OECD, Economic Survey of Ireland 2018

The National Competitiveness Council has been highlighting for some time the need to increase productivity across many sectors and firms, particularly in the indigenous and locally trading sectors of the economy. We must do more to ensure Irish enterprise stays at the forefront of technology and innovative activity. The NCC considers effective investment in Knowledge Based Capital and innovation, support for entrepreneurship and start-ups and, enhancing management practices, as the main drivers of productivity growth at firm and sectoral level. Addressing the policy

challenges to enhance Ireland's performance in these areas is of crucial importance. The European Commission's 2018 Country Specific Recommendations (CSRs) for Ireland, released in May 2018, include a recommendation on productivity. The recommendation calls on Ireland to foster the productivity growth of Irish firms, and of small and medium enterprises, by stimulating research and innovation with targeted policies, more direct forms of funding, and more strategic cooperation with foreign multinationals, public research centres and universities.

Productivity Policy Framework

In recent years, the Government recognising the importance of productivity as a key driver of longer term economic growth has introduced a number of strategies and programmes set out actions to improve Ireland's productivity performance.

A review of Ireland's medium-term national enterprise strategy, Enterprise 2025, published in March 2018, was undertaken in response to recent significant global changes which could have far reaching impacts on Ireland's economy and enterprise development. These changes included: Brexit, US emerging policies, international tax developments and unrelenting advances in disruptive technologies. The review showed the need for changes to our policy emphasis, refocussing on building resilience and accelerating the speed at which we implement change.

The Council considers that arising out of Enterprise 2025 a greater focus is required in respect of:

- increasing the emphasis on developing Irish owned-enterprises – embedding resilience, enhancing productivity and delivering quality jobs – including supporting companies to navigate their way through Brexit – and including a focus on areas such as access to finance and tax
- strengthening the enterprise mix to develop scale and international visibility. For FDI, it is important that we expand source markets for investments, and continue to support transformational change.
- placing a spotlight on innovation and talent and technologies, developing new products, services and solutions to compete effectively internationally
- realising the potential of our regions – through the implementation of Project 2040, the development and implementation of Regional Spatial and Economic Strategies, Regional Action Plans for Jobs, and the launch of Phase II of the Regional Enterprise Development Fund by Enterprise Ireland
- developing our international relationships and strengthen economic diplomacy to raise Ireland's visibility, protect our reputation and provide opportunity for our enterprises.

In terms of the objectives related to Ireland's productivity performance, the renewed strategy's aim is to sustain an EU top 5 position in output per hour to 2020 and to increase the productivity in Irish-owned companies. The Council supports the focus on enhancing productivity in Irish-owned enterprises and emphasises that due to the wide divergence between the productivity performance of the various sectors of the economy and within sectors, monitoring of the total economy productivity performance should be supplemented by consideration being given to the feasibility of setting targets at a sectoral level.

Recommendation: Implement the actions on enhancing productivity in Irish-owned enterprises set out in Enterprise 2025 as outlined above. Consider devising and monitoring productivity targets at sectoral level.

Responsibility: Department of Business, Enterprise and Innovation

Future Jobs 2019

A key cross-Government approach to increasing productivity in Ireland is the new initiative Future Jobs 2019 Programme, jointly led by the Department of Business, Enterprise and Innovation in partnership with the Department

of the Taoiseach. The initiative's goal is to strengthen the resilience and preparedness of Ireland's economy in the face of existing and emerging external and domestic challenges. Future Jobs will set out long term ambitions for the future of the economy, taking account of these challenges, then translate them into specific short-term actions which can be taken on an annual basis, starting in 2019. As part of addressing national vulnerabilities, one of its five themes will place an increased emphasis on narrowing productivity divergence, increasing productivity levels among SMEs and Irish-owned companies and increasing diversification of export markets, source markets for FDI and sectors. Direct consultation with business, policy makers, leading thinkers and other relevant stakeholders to inform priorities will take place and the final policy will be formally launched in January 2019.

The NCC considers the initiative should clearly spell out the challenges in increasing the productivity performance in the lagging sectors and firms, particularly in the indigenous and locally trading sectors of the economy, and propose an ambitious plan to address these challenges.

Recommendation: Develop an ambitious, target led, time bound action plan around the priorities to increase the productivity performance of the indigenous sector set out in the Future Jobs initiative. Ensure that business representatives are consulted in the process of framing the actions.

Responsibility: Department of Business, Enterprise and Innovation, Department of the Taoiseach

National Productivity Boards

In September 2016, the Council of the EU adopted the Commission's recommendation on the establishment of National Competitiveness Boards within the euro Area. The role of the boards is to track developments and inform the national debate in the field of productivity and competitiveness. In March 2018 the Government mandated the National Competitiveness Council to function as Ireland's National Productivity Board. The Council will play a key role in improving national competitiveness and productivity performance as part of the enhanced focus on productivity.

Recommendation: Engage with the European Commission, OECD and other international productivity bodies to exchange best practice. Continue to analyse policies and challenges in the area of productivity to reinforce policy dialogue at national level.

Responsibility: National Competitiveness Council

Productivity Data

Over the next decade, the challenges in enhancing productivity will be key to achieving sustainable growth and improved living standards in Ireland. In this regard the availability of timely data on Ireland's productivity performance is vital to inform future policy measures. In April 2018 the CSO produced its first publication on Ireland's productivity performance. The publication provides detailed productivity analysis examining the impact of labour, capital and multi-factor productivity on Irish productivity. The Council welcomed the CSO publication which is crucial to further aid our analysis of the Irish economy and inform the policy making process. However, further steps are needed to provide policymakers with a comprehensive picture of Ireland's productivity performance. Analysis of Ireland's performance is currently limited by the absence of timely national data on productivity performance at sectoral level which can be benchmarked against international competitors. To facilitate better analysis of Irish productivity performance, productivity indicators covering the sectors of economic activity are required for both productivity levels and growth rates, and data should be disaggregated to the degree possible to identify sectoral trends.

Another positive development is the firm-level research on productivity, published by the OECD⁹¹. In keeping with the OECD's own global findings, this research shows a widening in the productivity gap between high and low productivity firms, driven by a decline in productivity by many Irish-owned firms over the last decade. The Council welcomes the Department of Finance analysis of firm level productivity performance. Such analysis of firm level data should help identify policy measures which could help improve understanding of the key drivers of aggregate productivity in Ireland and facilitate the development of tailored and targeted policy instruments to drive future productivity growth at sectoral and firm level.

Recommendation: Publish a more disaggregated sectoral productivity data, including at firm level, to assist policymakers in adequately understanding and benchmarking Ireland's productivity performance against international competitors and driving informed policy decisions.

Responsibility: Central Statistics Office

Supports for Innovation and Investment in Knowledge Based Capital

Innovation and knowledge based capital are key enablers of productivity. The concept of knowledge based capital (KBC) is a broad one encompassing a wide range of activities in addition to R&D, such as intellectual property, software, data, organisational changes, training, testing, marketing, and design. KBC is difficult to measure but is a key investment for achieving sustainable growth. From a productivity perspective, the returns from investment in innovation are also a vital component in increasing productivity performance, diversifying and broadening the enterprise and exports base (which is imperative considering the challenges posed by Brexit), and growing FDI. To improve its productivity performance and remain globally competitive, Ireland requires continuous, sufficient and effective investment in R&D not only by the State but especially by the private sector; the presence of high-quality scientific research institutions; extensive collaboration in research between higher education institutions and industry; and sophisticated business practices and effective clusters.

Public and private Investment in Innovation

The EU Innovation Scoreboard shows Ireland is considered a strong innovator but behind the innovation leaders Sweden, Denmark, Finland, the Netherlands, the UK, and Luxembourg. Ireland's performance improved relative to that of the EU in the period 2010-2017. Ireland is the overall EU leader in innovation in SMEs, employment impacts, and sales impacts dimensions. Intellectual assets, finance and support are our weakest innovation dimensions.

The returns from public investment in innovation can be difficult to assess and take time to measure. However, public investment is crucial to stimulate private investment and to facilitate enterprise-led innovation creation and the diffusion of innovations. In 2016, Irish expenditure on R&D as percentage of GDP (1.18%) was below the EU average (2.03%) and the UK (1.69%). Business expenditure on R&D (BERD) was 0.8 per cent of GDP, with public expenditure accounting for 0.3 per cent. In 2017, Gross expenditure on R&D (GERD) increased to €3,396 million and is at its highest level in the period 2007-2017. Estimated as a share of government budget outlays on R&D, expenditure in Ireland was 0.97 per cent in 2016, behind the UK (1.25%) and the EU average (1.37%). R&D expenditure by higher education

⁹¹ Papa et al (2018), "Patterns of Firm Level Productivity in Ireland", OECD Productivity Working Papers, 2018-15, OECD: https://www.oecd-ilibrary.org/economics/patterns-of-firm-level-productivity-in-ireland_1a04730d-en

institutions is also relatively low. Higher education R&D saw a decline in expenditure between 2008 and 2014 and reached €732 million. Since then it has increased from €764 million in 2015 to an estimated €817 million in 2016. Improving our performance in the public and private R&D expenditure represents a significant challenge for Ireland. Additional funding for R&D will be required to achieve the goals of Innovation 2020 and the EU Framework Programme for R&D Horizon 2020.

Despite the increase in the overall levels of investment in R&D in recent years (Government expenditure on R&D increased from €736 million in 2015 to €739 million in 2017⁹²), GNP/GDP levels have increased at a faster rate. This makes the delivery of the commitment set out in Innovation 2020, to increase combined public and private investment levels of R&D to 2.5 per cent of GNP by 2020, very challenging. Ireland's R&D expenditure in the Business, Higher Education and Government sectors was 1.46 per cent of GNP in 2017 and it declined from the 2015 level of 1.56 per cent. Data on the gross R&D expenditure expressed as a proportion of GNI* confirms that the R&D intensity has fallen from 1.94 per cent of GNI* in 2015 to 1.87 per cent in 2017. This decline in research intensity as a proportion of GNI* re-emphasises the point that investment in R&D does not keep abreast with economic growth which poses a threat that R&D investment may be insufficient to support future productivity growth. Reaching the Innovation 2020 target requires doubling public and private spending. The Council considers that supplementing the headline metric of R&D expenditure with a measure based on the GNI* which reflects better the performance of the national economy is useful for informing Government policy in this area.

The Department of Business, Enterprise and Innovation is conducting a Mid-term Review of Innovation 2020 to assess progress achieved to date in implementing the Strategy, signal potential issues and inform the future development of a successor to Innovation 2020.

Recommendation: As part of the Mid-term Review of Innovation 2020 identify actions that should be prioritised during the remaining term of Innovation 2020. Supplement the current expenditure target with a measure of R&D intensity relative to GNI*.

Responsibility: Department of Business, Enterprise and Innovation

One of the key targets in Innovation 2020 is securing €1.25 billion from the EU Research Framework, Horizon 2020. Horizon 2020 supports the enhancement of the R&D system, creating linkages with world leaders in academia and enterprise and facilitating the collaboration between the public and private sector in delivering innovation.

Ireland secured €513 million in funding from Horizon 2020 to February 2018. This represents 1.67 per cent of the total budget committed to date and is marginally above the target of 1.56 per cent. However, as the Horizon 2020 framework is in its final phase, the competition for funding from other Member States is increasing. It is crucial that State funding in R&D is sufficient to ensure that drawdown from Horizon 2020 is maximised and the target is reached.

Recommendation: Ensure State funding is sufficient to facilitate maximising the drawdown of funds from Horizon 2020 and achieving the target of €1.25 billion under the Framework Programme. Following consultations with stakeholders, engage with the European Commission in order to influence the shaping of the successor to Horizon 2020 – Horizon Europe.

Responsibility: Department of Business, Enterprise and Innovation

The Council re-iterates that maximising the impact of public research funding must remain a priority for policymakers. Following analysis of the evidence, the Research Priority Areas 2018-2023 Report launched a new cycle of research

⁹² The research and Development Budget 2017-2018, October 2018, Department of Business, Enterprise and Innovation

prioritisation in 2018. Although the focus for many priority areas remained relevant, there have been several revisions and updates to both the themes and the priority areas to reflect changing circumstances. These include the following:

- broadening the ICT priority areas to include Robotics, Artificial Intelligence (including Machine Learning), Augmented Reality and Virtual Reality
- broadening the Sustainable Food Production and Processing priority area to reflect the need for climate smart and environmentally sustainable food systems and the need for circularity and resources efficiency of food systems
- renaming the Manufacturing Competitiveness priority area and Processing Technologies and Novel Materials to Advanced and Smart Manufacturing (which will also include Processing Technologies) and Manufacturing and Novel Materials respectively, reflecting the impact of technological change and the digitisation of manufacturing
- enhancing and renaming the Research Priority theme to Energy, Climate Action and Sustainability, reflecting increased urgency to address climate change and sustainability challenges, alongside the increased opportunities for enterprise within this wider context.

The revised priority areas will be of particular relevance in the context of the new €500 million Disruptive Technologies Innovation Fund announced by the Government as part of the National Development Plan 2018-2027.

Supporting Firm Level Investment in Innovation

Private investment continues to be the main source of investment in R&D. The CSO biannual survey Business Expenditure on Research and Development (BERD) 2015 - 2016 shows that almost €2.39 billion was spent on R&D activities by enterprises in Ireland in 2017⁹³. This is in excess of an 18 per cent increase compared with 2013 (€2.02 billion). The research expenditure of the indigenous business sector is small relative to the foreign owned sector but growing. Irish owned enterprises reported an increase in R&D spend of €107 million (15%), up from €703 million in 2013 to €810 million in 2015. Ireland's BERD expenditure continues to be dominated by a small proportion of multinationals, although their share in the BERD spend is decreasing. Foreign owned enterprises accounted for 64 per cent of all R&D expenditure. The largest 100 enterprises in terms of R&D spend accounted for over €1.6 billion, or 73 per cent, of the total R&D expenditure in 2015. Of these top 100 enterprises, 76 per cent of expenditure is attributed to foreign owned enterprises.

The Council considers that to uplift Ireland's overall innovation performance, broadening the base and intensifying R&D activities in Irish-owned SMEs while maintaining and increasing the level of R&D activities by high productivity enterprises in the FDI sectors is crucial. In implementing the R&D and innovation policy agenda, the Department of Business Enterprise and Innovation works with, and funds several agencies and programmes, namely Enterprise Ireland, Science Foundation Ireland, IDA Ireland, InterTrade Ireland and Higher Education Authority (who administer the Programme for Research in Third level Institutions). Enterprise Ireland's Strategy for 2017-2020 has a strategic ambition to increase the level of innovation among client companies, including through implementing its new Innovation Toolkit. This supports client identification of innovation opportunities and driving greater connectivity between investment and technology networks to transfer knowledge, skills and IP. IDA Ireland's 5-year strategy also has targets to increase research investment, both in terms of new performers and scale of R&D investment.

In its Country Specific recommendations of 2018, the European Commission recommends that Ireland foster the productivity growth of Irish firms, particularly SMEs, by stimulating research and innovation with targeted policies, more direct forms of funding and more strategic cooperation with foreign multinationals, public research centres and

⁹³ The figure is an estimate

universities. In the past the Commission has criticised the Government for increasingly relying on R&D tax credits rather than using more direct funding which could be more beneficial to Irish young innovative firms. As part of the Spending Review 2018, the Department of Public Expenditure and Reform published two reports, Trend Analysis of IDA Ireland Expenditure and Overview of Enterprise Supports and the Labour Market. The Reports indicate that Enterprise Ireland's R&D grant expenditure comprised €74 million to third level education and additional €28 million in grant support administered via in-company R&D grants in 2017. On average, R&D grant approvals by IDA were €93 million per year, ranging from €53 million in 2012, to a peak of €144 million in 2016. In comparison, the cost of the R&D tax credit has increased substantially over time and was €708 million in 2015, up from €282 million (2012). Further measures have also been introduced with the aim of promoting R&D such as a tax relief on the acquisition of intangible assets and the Knowledge Development Box which provides tax relief on income arising from certain intangible assets arising from R&D undertaken in Ireland. The Council acknowledges the importance of the R&D Tax Credit scheme for increasing and deepen the research capabilities of firms. Given that the indirect R&D public funding outstrips the direct R&D measures significantly it is crucial that Ireland's R&D tax credit and the Knowledge Development Box deliver on their objectives, remain internationally competitive and evolve to meet the needs of emerging sectors, small and early stage firms, as well as the needs of larger, established firms. Simultaneously, the Government should continue to develop initiatives based on direct R&D funding to further embed innovation activity in the indigenous sector, particularly SMEs and microenterprises.

The Council welcomes the review by Indecon undertaken on behalf of the Department of Business, Enterprise and Innovation on its full range of programmes to establish where overlaps and complementarities may exist and explore opportunities to streamline, strengthen and introduce new supports. The Report recommends that Ireland should continue to provide significant support to leverage enhanced R&D activity in both foreign-owned and indigenous enterprise. Given that a large number of SMEs do not engage in R&D activity, the report recommends undertaking an audit of SMEs R&D capacity to help them identify barriers to achieving their potential. Investigating the potential of medium-sized foreign-owned enterprise to increase the level of R&D activity is also important. The Department of Business Enterprise and Innovation is working with the R&D funding agencies to implement the Indecon Report recommendations to facilitate the increase of the number of R&D performers and deepen R&D activities among existing companies. The wide range of R&D programmes and funding authorities makes it difficult for enterprise to identify programmes most suited to their needs, therefore the Department of Business, Enterprise and Innovation is working with KTI to develop a comprehensive and enterprise-friendly directory of all enterprise supports and programmes on innovation.

Recommendation: Prepare an implementation plan to intensify business R&D activity based on the findings of the Indecon review of RD&I supports with particular focus on an audit of SMEs R&D capacity to identify barriers to achieve their potential. Ensure supports are aligned with business needs.

Responsibility: Department of Business, Enterprise & Innovation

Recommendation: Prioritise the completion and dissemination of the comprehensive directory on innovation programmes and supports to facilitate companies identify programmes most suited to their needs.

Responsibility: Department of Business, Enterprise & Innovation, Knowledge Transfer Ireland

Recommendation: Ensure the R&D tax credit and Knowledge Development Box incentives provide value for money while remaining internationally competitive, particularly to SMEs needs.

Responsibility: Department of Finance

Investment in Knowledge Based Capital (KBC)

As noted by the OECD⁹⁴, synergic investment in KBC enables firm to absorb, adapt and reap the full benefits of innovative technologies.

- The Innovation in Irish Enterprises Survey (formerly Community Innovation Survey) published in April 2018 shows that 57 per cent of all enterprises based in Ireland were innovation active⁹⁵ during 2014-2016, a decline from 61 per cent in the period 2012-2014. The results show a significant divergence between the distribution of innovation activities in the foreign-owned and indigenous sectors and between sectors.
- Nearly 31 per cent of enterprises in the Industry and Selected Services sectors had *process innovations* in the period 2014-2016, while 29 per cent were engaged in *product innovations*. 21 percent of those enterprises were engaged in both process and product innovations. Almost 40 per cent of Industry enterprises were engaged in process innovation compared to 26 per cent of enterprises in Selected Services. Foreign owned enterprises were more likely to engage in product innovations, process innovations or both compared to Irish owned enterprises.
- The benefits of introducing new technologies are best realised when they are supplemented by complimentary investments in *organisational change* and *upskilling*.
- Almost 41 per cent of all enterprises carried out an *organisational innovation* in 2014-2016. The most cited forms of organisational innovation were new methods of organising work responsibilities and decision-making (36%) and the introduction of new business practices (35%). An organisational innovation was introduced by 62 per cent of large enterprises, 52 per cent of medium sized enterprises and 37 per cent of small enterprises.
- Almost 17 per cent of turnover for enterprises in 2016 was reported to be the result of *new to firm* or *new to market innovations*. Almost 21 per cent of the turnover of foreign owned enterprises was generated as a result of new to the market and new to firm product innovations compared to 11 per cent of the turnover of Irish owned enterprises.
- The total expenditure on innovation activities for enterprises based in Ireland increased by 22 per cent between 2014 and 2016. Foreign-owned enterprises which comprise 19 per cent of all relevant enterprises, accounted for 64 per cent of total innovation expenditure. Irish-owned enterprises comprised 81 per cent of all relevant enterprises, and accounted for 36 per cent of the total innovation expenditure. In 2016 the indigenous sector spent €793 million on in house R&D, while foreign-owned companies spent almost twice as much (€1.4billion). The distribution of innovation expenditure between Irish and foreign owned enterprises has stayed broadly consistent over the period 2010-2016. The largest 50 enterprises with innovation expenditure, representing 0.7 per cent of all relevant enterprises, accounted for 72 per cent of total innovation expenditure.

While acknowledging differences in survey methodologies, it is concerning that the most recent SME Credit Demand Survey published by the Department of Finance, in June 2017, suggests a less positive trend than the CIS in enterprises undertaking innovation activities. The key findings of the survey are as follows:

- In March 2017, 43 per cent of SMEs reported that they were undertaking innovative activities, a 10 per cent decrease year on year
- The most common form of innovation cited is in marketing with 25 per cent of SMEs reporting that they had undertaken new marketing approaches in the last 6 months

⁹⁴ OECD, The Future of productivity, 2015

⁹⁵ Enterprises that have carried out a product, process, organisational or marketing innovation or have exercised an intellectual property right

- It is notable that the proportion of enterprises engaging in new business practices (15%) has halved in the last year
- The proportion of SMEs undertaking new or improved services (17%) or goods (15%) has fallen over the past three years. The proportion of SMEs undertaking new improved methods of production, distribution or support activity has also decreased (11%).

It is also a concern that a recent review⁹⁶ of Capital Expenditure on Research, Development and Innovation concluded that a significant number of client companies supported by Enterprise Ireland and IDA Ireland is not meaningfully engaged or investing in innovation and are most vulnerable to structural change brought about by external forces.

The OECD's 2018 paper on Ireland ⁹⁷ suggests that due to the need for practical investigation before aspects of new technologies can be properly incorporated into production processes, investing in KBC is a means of translating exposure to new knowledge into efficiency gains by local businesses.

An ESRI's research paper, Investment in knowledge-based capital and its impact on productivity, supports Ireland's policy approach which recognises the different behaviour and supports for enterprises operating in Ireland and aims at incentivising investment in KBC by adapting these supports for groups of firms with similar characteristics. Enterprise Ireland, Science Foundation Ireland and IDA Ireland have put in place several initiatives to assist firms in enhancing their productivity performance and competitiveness by supporting KBC investment. It is also important that these initiatives are regularly reviewed to ensure that they deliver on their objectives and any obstacles in availing of these programmes are addressed.

Recommendation: Conduct regular reviews to identify the obstacles and enablers to increasing investment in knowledge based capital and innovation activity at firm level.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland, IDA Ireland

Recommendation: Consider how supports to encourage participation in Knowledge Based Capital programmes should be targeted and communicated to specific groups of firms with similar characteristics.

Responsibility: Enterprise Ireland

Productivity Enhancing Supports

A recent InterTradeIreland study⁹⁸ shows that, on average, exporting Irish-owned firms are approximately 8.5 per cent more productive than non-exporters. Comparing the same cohorts in Northern Ireland, the exporters are approximately 20 per cent more productive than non-exporters. Exporters also consistently out-perform non-exporters on turnover and employment.

Enterprise Ireland provides supports for Irish companies to enhance their productivity and competitiveness performance by focussing on assisting more Irish companies to achieve greater scale and expand into new export markets. The Enterprise Ireland Strategy 2017-2020 places a strong emphasis on improving firms' competitiveness and driving productivity improvements by:

⁹⁶ Department of Business, Enterprise and Innovation, Review of Capital Expenditure on Research, Development and Innovation (2000-2016), 2017

⁹⁷ OECD Working Paper, 2018 - Reforms for sustainable productivity growth in Ireland https://www.oecd-ilibrary.org/economics/reforms-for-sustainable-productivity-growth-in-ireland_2fd5fd8a-en

⁹⁸ Export Participation and Performance of Firms on the Island of Ireland

- increasing access to Competitiveness and Lean Programmes to drive operational efficiencies in companies and through its new client engagement model, providing targeted supports based on agreed milestones
- providing capital, innovation and funding for skills
- increasing access for SMEs to Multinationals through Global Sourcing activities and facilitating greater connectivity opportunities
- advocating for client needs to support greater competitiveness
- providing targeted direct and indirect investment to drive company scale
- enhancing leadership development by introducing a new Skills Needs Analysis Toolkit to help companies identify skills gaps, increasing access to Leadership Development programmes and strengthening middle management leadership development.

This Strategy to support Enterprise Ireland’s clients to become more competitive and increase productivity is essential and EI should continue to promote awareness of the benefits of participation in productivity enhancing programmes.

Recommendation: Conduct an evaluation of Enterprise Ireland’s client engagement model which provides targeted supports based on agreed milestones.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland

As part of the “Skills for Growth” initiative by the Department of Education and Skills, Enterprise Ireland introduced a series of “Spotlight on Skills” workshops to assist companies to identify their critical skills needs, aligned to their strategic priorities, and to support the growth of their businesses. The output from a series of workshops facilitates Enterprise Ireland’s clients identify their skills needs, and develop a plan to recruit and develop the appropriate personnel. Once the company plans are developed, the Regional skills fora managers will work with the company to meet their specific skills gaps. This information also helps to inform engagement with Higher Education, Further Education and other training providers to tailor supports to industry skill requirements.

Recommendation: Address, through the education and training system, skills needs identified through programmes like Spotlight on Skills. Develop new programmes to address identified skill needs and update the existing programmes’ curriculum to address future needs.

Responsibility: Department of Business, Enterprise and Innovation, Department of Education and Skills, Enterprise Ireland

Collaboration for Innovation and Productivity

The OECD labour productivity index of Irish-owned firms has remained practically flat over the past ten years, while for foreign-owned firms with a baseline of 100 in 2006, it has risen to almost 400 in manufacturing and, almost eight times, to 800 in services. Economy-wide productivity and employment gains are generated when innovative products, services and processes are diffused and widely adopted, making the strengthening of investment in R&D and technology diffusion mechanisms a key policy priority. In Ireland, the Innovation in Irish enterprises survey indicates that:

- technological innovation co-operation rates are unchanged since 2010-2012 and 30 per cent of all technologically innovative enterprises were engaged in some co-operative activity when developing their innovations in 2014-2016 compared to 31 per cent in the 2012-2014 survey

- enterprises reported that in 24 per cent of cases that they were engaged in technological innovation co-operation with partners located in Ireland, compared with 19 per cent of enterprises engaged with partners in other European countries.

The flat technological innovation cooperation rates indicate that there is scope for further increasing the levels of collaboration between firms located in Ireland and between research institutions and business.

The Council supports the various initiatives seeking to increase these collaborations. Such initiatives allow business to undertake research, develop new knowledge that can be used to generate commercial advantage and ultimately stimulate productivity and growth. The research institutions benefit by developing skill and intellectual property. The following are some of the collaboration initiatives funded by the State:

- As part of the commitments under the National Development Plan 2018-2027, the Department of Business, Enterprise and Innovation launched the *Disruptive Technologies Innovation Fund* in 2018. Among the goals of the programme is to drive collaboration between Ireland's world-class research base and industry as well as facilitate enterprises to compete directly for funding in support of the development and adoption of these technologies. The funding supports collaborative enterprise-driven partnerships (enterprise and research partners, with participation of an SME being an essential requirement in every partnership) that will develop, deploy and commercialise disruptive technologies to transform business.
- In order to increase and improve academic-industry collaboration, in 2017 *Knowledge Transfer Ireland (KTI)* expanded its resources and tools assisting enterprise to engage with the public research system and to access IP, practical guidelines and improved information on expertise within the public research system.
- The Enterprise Ireland *Innovation Partnership Programme* encourages market-led collaboration between Irish-based companies and Irish research institutions to develop new and improved products, processes, services, and generate new knowledge and know-how.
- The *Innovation Voucher Programme* assists SMEs in purchasing services from public knowledge providers with a view to introducing innovations in new products, processes or services in their businesses.
- Another important initiative supporting enterprise collaboration on R&D are the *17 Research Centres* established by Science Foundation Ireland (SFI) encouraging partnerships across academia and industry. In addition, SFI provides a range of partnership funding mechanisms and programmes to facilitate industry-academia collaborations.
- The *Technology Centres initiative*, run jointly by Enterprise Ireland and IDA, also encourages collaborations between indigenous companies and multinationals and research institutions to undertake market focussed strategic research which benefits industry.
- The *Industry-led Research Networks Programme* part funded by Enterprise Ireland stimulates research activities among groups of companies with a common interest. The risks and benefits associated with large research projects are shared as are the skills and knowledge built up through working with academic researchers. The research is contracted out to a publicly-funded research institution.
- The role of the *Research and Technology Organisations (RTOs)*, funded through SFI and Enterprise Ireland and IDA, is to bring together enterprise and research across the whole innovation chain to facilitate the development and transfer of science and technology to firms. RTOs should have the scale and scope to support market-oriented, applied, industry led research, focussing on advanced manufacturing technologies such as robotics, AI and other areas with growth potential. The RTO model could be further explored to complement the work of SFI Research Centres and align them with others to form innovation services clusters, thus expanding the range of services provided. The model should be focussed on facilitating SME participation and be flexible and adaptable to evolving enterprise needs in terms of research and training. Often RTOs face a challenge to locate abroad in order to engage with world-class companies and gain

experience from such collaborations. Given the significant number of multinationals operating in Ireland, the opportunity to learn from frontier firms in terms of knowledge and technology by increased collaborations should not be missed.

The OECD⁹⁹ noted that the majority of collaborative research programmes currently in place focus on the involvement of exporting business or businesses engaged in innovative industries. In order to increase the scope for smaller firms to avail of the collaboration initiatives, it is important to ensure that such firms are aware of these options and understand how to engage in this process. Designing short-term collaborative projects could be the first step to further, longer-term collaborations.

Well developed, modern research infrastructure is an important factor for increasing Ireland's research capacity and facilitating collaboration between research and industry. For that reason, rollout of a successor to the Programme for Research in Third Level Institutions (RTLTI) is fundamental to supporting new investment in research infrastructure and upgrading of existing facilities and equipment. It is important that funding for research infrastructure is based on a targeted and coordinated approach and that the delivery of research infrastructure is aligned with the needs of the education system, research centres and business. In this regard, the European Commission encourages Member States to develop research infrastructure roadmaps setting national priorities earmarking funds for both national and pan-European research infrastructures. The study on Ireland's future research infrastructure needs¹⁰⁰ also suggests that a research infrastructure roadmap will be a useful instrument for aligning research infrastructure priorities with science, technology and innovation priorities; establishing the prioritisation of national and pan-European research infrastructures and allowing for long-term financial commitment by public and private stakeholders.

Recommendation: Examine enterprise RDI support programmes and ensure their comprehensiveness and appropriateness to indigenous enterprises, particularly SMEs. Strengthen the collaboration links between indigenous companies and multinationals with a view to increasing the diffusion of knowledge and technology.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland, IDA Ireland, Science Foundation Ireland

Recommendation: Ensure that the Research and Technology Organisations have the scale and scope to support market-oriented, industry-led research and that the work of future Research and Technology Centres is aligned to the needs of the enterprise sector.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland, IDA Ireland

Recommendation: Increase awareness of the various initiatives aimed at improving industry-academia collaboration.

Responsibility: Knowledge Transfer Ireland, Enterprise Ireland, IDA Ireland

Recommendation: Roll out the successor to the Programme for Research in Third Level Institutions to enhance Ireland's research capacity. Consider developing a research infrastructure roadmap to ensure a coordinated approach in delivering Ireland's research infrastructure priorities.

Responsibility: Department of Business, Enterprise and Innovation

⁹⁹ OECD, Reforms for sustainable productivity growth in Ireland, Working papers No1489, 2018

¹⁰⁰ Technopolis group, Ireland's future research infrastructure needs, 2015

Global Value Chains and Strengthening innovation linkages

As discussed under Theme 1, the Irish economy has a complex economic structure with a strong FDI presence. The substantial share of highly productive multinationals in Ireland and the data on their productivity performance indicates that there is scope for better linkages between the indigenous sector and FDI sectors as a means of boosting productivity spillovers and in turn increasing the competitiveness and productivity of indigenous firms. By integrating in the supply chain of foreign-owned firms, indigenous firms could benefit from greater knowledge, training and potential access to a range of their customers and enhanced productivity performance. In turn, foreign-owned companies could benefit from closeness to local suppliers and aligning their products with the preferences of the local market. Given that IDA client companies export the vast bulk of their products, it is essential that indigenous enterprises enhance the competitiveness of their offering to forge linkages with the FDI sectors. The OECD paper on Reforms for sustainable productivity growth in Ireland notes the two approaches for incorporating indigenous firms into the supply chains of foreign-owned firms. The two approaches are as follows:

- by providing intermediate inputs in their production processes or
- by using the inputs of foreign-owned firms as inputs to their operations.

The OECD paper indicates that foreign-owned firms are far less likely than Irish-owned firms to source production inputs locally. Around 65 per cent of the material inputs of surveyed Irish-owned manufacturers were locally sourced in 2015 compared with 14 per cent for foreign-owned manufacturers. In terms of services inputs, over 80 per cent of those used by surveyed Irish-owned manufacturers were sourced from Irish companies in 2015 compared to 12 per cent by foreign-owned manufacturers¹⁰¹. These results suggest that policies which encourage multinationals to generate linkages with the domestic economy, and provide potential FDI with information on the available local suppliers, should be prioritised.

The evidence on productivity spillovers from multinationals to indigenous enterprise in Ireland is somewhat mixed. ESRI research¹⁰² indicates that attracting FDI is not sufficient to generate spillover effects to indigenous enterprise. In order to benefit from the presence of FDI, enhancing the firms' absorptive capacity is particularly important (i.e. they must possess certain capabilities before they can usefully apply knowledge gained from a multinational). Investing in R&D results in increasing the absorptive capacity of the indigenous firms in the service sector. The evidence indicates that in addition to measures promoting the diffusion of knowledge and technology from the highly productive to the lagging firms, policies which strengthen the absorptive capacity of indigenous firms are central to enhancing their productivity levels.

The OECD also warns that the large and widening gap between foreign-owned and Irish-owned firms may be a result of impediments in the process of knowledge diffusion in Ireland. Achieving the targets related to increasing private funding of R&D performed in the higher education sector¹⁰³, increasing the number of innovation active firms, commercialisation activity and collaborative research projects between industry and the public research system are key for intensifying firms' involvement in technology and innovative activity and thus enhancing the diffusion of knowledge and knowhow from the leading firms, to indigenous enterprises.

The Government acknowledged the importance of trade links between the multinationals and indigenous sector and has put in place the Global Sourcing Strategy – a collaboration between EI and IDA aimed at maximising the opportunities for sourcing of materials and services by multinationals from indigenous enterprise. As part of the Global Sourcing initiative, the Government organises Trade and Investment Missions to provide multinationals with direct access to potential suppliers, as well as raising awareness of the innovative capabilities of Irish SMEs. The missions also assist Irish companies seeking credible access to procurement teams in global multinationals.

¹⁰¹ <http://dx.doi.org/10.1787/2fd5fd8a-en>

¹⁰² <https://www.esri.ie/pubs/WP587.pdf>

¹⁰³ Innovation 2020

The OECD points that the local suppliers targeted by the initiative are Enterprise Ireland clients who are export focused and often possess the product sophistication or scale to avail of the initiative. The OECD suggests that complementary initiatives providing information about local businesses that are not supported by Enterprise Ireland could further improve trade linkages between indigenous enterprise and foreign-owned enterprise.

The Council supports the work of the Enterprise Agencies in this area and regards it as crucial to further intensify trade linkages and explore spillover channels between Irish-owned firms and the multinational companies in order to help the indigenous companies achieve sustainable productivity growth and reap the benefits of potential diffusion of knowledge and technology.

Recommendation: Review the effectiveness of the Global Sourcing Initiative and re-adjust the initiative to develop and intensify the trade linkages between indigenous and multinational enterprises. Build the capacity of indigenous companies to achieve sophistication and scale to avail of the Global Sourcing Initiative.

Responsibility: Department of Business, Enterprise and Innovation, Enterprise Ireland, IDA Ireland

Supporting Entrepreneurship and Start-ups

New firms have a significant importance for improving productivity and competitiveness. A continuous flow of new business start-ups, that can survive and thrive in international markets, strengthens the productivity base. This occurs not only through the creation of new businesses, products and services but also by putting pressure on existing companies to introduce innovative practices and reduce business costs. In this regard, it is crucial that various coordinated policy measures are put in place to create an environment that facilitates the creation of start-ups. Policy interventions are required to ensure efficient firm entry, growth, and exit. In addition, improving the administrative and regulatory environment, and well-developed capital markets for seed and early stage finance; bankruptcy laws that do not excessively penalise failure; and low entry barriers to entrepreneurship, are fundamental for enterprise growth.

- The European Commission's annual Small Business Act (SBA) Factsheet benchmarks regulatory trends and national policies which affect entrepreneurs and SMEs across Europe. It assesses elements such as entrepreneur supports, State Aid, procurement, education and training, female entrepreneurship, bankruptcy procedures, support services and the operational environment for business creation. Since 2008, Ireland has made substantial progress in SBA implementation. In 2017, Ireland improved further its already competitive SBA profile and is one of the top four EU performers in entrepreneurship. In eight of the SBA's principle areas — entrepreneurship, 'second chance', 'responsive administration', state aid and public procurement, access to finance, single market, skills and innovation and internationalisation — Ireland performs above or well above the EU average. In the area of the environment, Ireland performs on a par with the EU average. The Commission considers Ireland as an attractive and supportive country in which to start and/or scale up a business.

The EU's SBA reports that the general administrative environment is very competitive in core elements of SMEs' day to day business. The general administrative burden is very low and the licence and permit system is, in general, rather straightforward. Relative to other EU member states, the broader legislative framework is also considered more stable and less complex.

- However, the World Bank Report points at areas where Ireland's ranking is less impressive and deficiencies in the areas of getting credit, getting electricity, dealing with construction permits, registering property, trading across borders and enforcing contracts discourage entrepreneurship activity. The World Bank's Doing

Business report 2019¹⁰⁴ ranked Ireland 23rd out of 190 economies in terms of ease of doing business. Ireland improved or maintained its ease of doing business score in respect of nine of the ten indicators. While Ireland's overall ranking declined six places from 17th to 23rd, there was a marginal decrease in our absolute score which fell from 79.51 to 78.91. Ireland's ranking of fourth for 'Paying taxes' and 10th in 'Starting a Business' are the highest among EU countries. Among EU member states, Ireland is ranked above Germany, Austria, Spain, France, Poland, Portugal, Czech Republic, Netherlands, Slovenia, Slovakia, Belgium, Italy, Romania, Hungary, Cyprus, Croatia, Bulgaria, Luxembourg, Greece and Malta. The UK in 9th position outperforms Ireland in 8 of the 10 measures, with the exceptions being, procedures involved and administrative costs of starting a business and paying taxes. Our performance across a number of measures, particularly in terms of time and cost of contract enforcement, registering a property and getting electricity, lags.

- The OECD cites high administrative and financial costs related to commercial property such as planning charges, property registration and commercial rates, as barriers to entrepreneurship. In contrast to the findings of the analysis of the World Bank, the OECD considers that relatively high barriers to entrepreneurship are associated largely with the complexity of Ireland's licence and permits system. This is mainly because of the currently limited scope of points of single contact ("one-stop shop") providing an interface between different spheres of competence. With a view to reducing the administrative burden on small businesses, the OECD recommends that the Government fully roll out the Integrated Licence Application System.

Recommendation: Expedite the roll out of the Integrated Licence Application System and extend the system to include as many licensing authorities as possible.

Responsibility: Government Departments, Licencing authorities

Easing administrative burdens imposed through regulation can improve firm level productivity by reducing costs and minimising the time businesses spend fulfilling regulatory requirements. An example of reducing the administrative burden on business is the Companies (Accounting) Act 2017 which features more relaxed disclosure requirements, and increased size thresholds for qualification of a company or group as small or medium. As a result, more companies are now eligible for the reduced financial reporting requirements of the 'small company regime' including the audit exemption. The Act also introduced a new category of "micro" company, with greatly reduced financial reporting requirements. The Department of Business, Enterprise and Innovation developed the SME test in 2017, which includes a range of measures designed to ensure new regulations and legislation do not place a disproportionate burden on smaller businesses. The SME Test is being piloted within the Department of Business, Enterprise and Innovation on the draft EU Copyright Directive prior to a wider roll out across the various Government Departments. By assessing the costs and benefits of policy options, the SMEs test helps implement the 'Think Small Principle' and improve the business environment for SMEs.

Recommendation: Roll out the SMEs test across Government Departments to ensure the impact of any new legislation or regulation does not create a disproportionate burden on SMEs.

Responsibility: Department of Business, Enterprise and Innovation, Government Departments

¹⁰⁴ <http://www.doingbusiness.org/en/rankings>

The CSO statistics on the new enterprise born, survival and self-employed are as follows:

- the number of newly born enterprises increased in Ireland in 2016 by 6 per cent compared to 2015. The largest increase was in the Services sector, while the Industry sector experienced the highest percentage increase
- the number of newly born enterprises remained below the EU average of 10 per cent in 2015
- Ireland has a very high proportion of high growth enterprises (growth in employment by 10% or more). 86 per cent of the enterprises born in Ireland in 2014 survived in 2015. 3-year and 5-year survival rates are significantly higher than most EU countries, where less than half survive for a 5-year period
- the proportion of self-employed in Ireland (13.3%) remains below pre-recession levels (15.1%) and is close to the euro area average (13.6%) and UK (14%)
- the proportion of self-employed with employees (4.2%) is above the UK level (2.2%)
- own-account workers account for 9.1 per cent of employment in Ireland, the same as the euro area average but below the UK (11.8%).

The Council has emphasised in the past the importance of policies which, not only support start up activity, but also facilitate new firms surviving and scaling. Supports for entrepreneurial activity need effective targeting and taking into account the potential quality of entrepreneurial activity, particularly potential to scale. It is also essential that private investment in entrepreneurs be encouraged to increase the scope and competitiveness of the start-up investment market.

State support to start-ups through Enterprise Ireland in the form of feasibility funding, Competitive Start Funds, and HPSU supports, is critical. The LEOs network provides a range of supports to drive entrepreneurship among the small and micro-enterprise base. The LEO Innovation Investment Fund (LIIF Programme), launched as a pilot initiative in 2017 to target investor-ready LEO clients that wanted to start, grow, or develop innovative micro-enterprises, continued to operate in 2018. A new portfolio management model will be rolled out to the LEOs by Enterprise Ireland to assist LEOs clients in enhancing their portfolio performance and potential. It is essential that Customer Relationship Management System is put in place to enhance monitoring and improving LEOs' performance.

Focused Policy assessment¹⁰⁵, published in 2018, produced analysis of Start-up and Entrepreneurship expenditure provided by the Department of Business, Enterprise and Innovation to agency clients. It traced that investment through its main activities, outputs and impacts across the main themes of investment. Some of the key considerations of the assessment are:

- the presence of data gaps in terms of attributing expenditure to some of the LEO's support programmes which prevents comprehensive evaluation of the effectiveness of these programmes
- the lack of convergence between approvals and payments over time in some of the programmes. The assessment encouraged analysis of the factors driving the gap as it could provide an insight to the reasons affecting a company's ability to meet targets set out for the project
- macro-economic, structural and operational changes in the last years require the development of more up to date evaluations. A new cycle of thematic evaluations to ensure that the policy objectives remain up to date, are recommended.

The 2014 National Policy Statement on Entrepreneurship sets out the Government's approach to improving the Irish entrepreneurship ecosystem. In 2017 the Department of Business, Enterprise and Innovation conducted a mid-term review of the Policy Statement with engagement and feedback gathered from stakeholders, including entrepreneurs.

¹⁰⁵ Focused Policy Assessment of Start Up and Entrepreneurship Expenditure

The review assessed progress on the strategy, the relevance of the existing targets to 2019 and the priority obstacles and barriers to achieving a 25 per cent uplift in the number of start-ups, and increasing the survival rate of start-ups. It is important to publish and prioritise implementation of the recommendations and actions arising from this review.

Higher Education Institutions (HEIs) play an important role in fostering entrepreneurship and innovation by providing relevant courses and supporting collaboration with business. In 2017, the OECD and European Commission published a report on Supporting Entrepreneurship and Innovation in Higher Education in Ireland, a comprehensive assessment of Irish HEIs. The report found that HEIs have a range of initiatives to encourage entrepreneurial career paths for their students and graduates, including undergraduate and postgraduate courses, work-based learning, business start-up and incubation programmes, mentoring and coaching. The report tables a number of recommendations to fully harness the potential of HEIs:

- enhance collaboration between policy structures and state agencies involved in supporting entrepreneurship and innovation in HEIs
- broaden the scope for multi- and transdisciplinary research initiatives in research priorities and in the effort to mobilise HEIs in regional and national development
- map out and assess the impact of entrepreneurship and innovation in higher education
- expand entrepreneurship education across all disciplines and increase the number of interdisciplinary education activities
- enhance collaboration with SMEs through a single 'front door' approach
- support HEIs in creating collaborative and mentor links with innovative and entrepreneurial HEIs abroad.

The Department of Education and Skills is developing an Entrepreneurship Education Policy Statement which will cover the whole of the education and training system, including primary and post primary schools. The Statement will inform the development of new Entrepreneurship Education Guidelines for Schools to support the delivery of entrepreneurial education and experiential learning opportunities. The Council considers that the findings of the OECD report on Supporting Entrepreneurship and Innovation in Higher Education in Ireland should be considered in the context of developing the new Entrepreneurship Education Policy Statement.

Recommendation: Implement the recommendations set out in the Focused Policy Assessment of Start Up and Entrepreneurship Expenditure.

Responsibility: Department of Business, Enterprise and Innovation

Recommendation: Consider the recommendations of the report on Supporting Entrepreneurship and Innovation in Higher Education in Ireland in the context of developing a new Entrepreneurship Education Policy Statement. Publish and prioritise the recommendations and actions arising from the Entrepreneurship Education Policy Statement and develop new Entrepreneurship Education Guidelines for schools.

Responsibility: Department of Education and Skills

As part of promoting entrepreneurship activity in Ireland, the OECD in collaboration with the Department of Business, Enterprise and Innovation, has commenced a "Review of SME and Entrepreneurship issues and policies in Ireland" in 2018. The issues identified by the report and the recommendations on proposed actions to address deficiencies in entrepreneurship policy will form the basis of a long-term SME Strategy for Ireland.

Driving productivity by improving management practices

Good management practices are an important factor for improving productivity performance. Highly proficient leadership, with ambition, vision and strong management teams, is critical for establishing the environment that facilitates an innovative culture. Management practices incorporate the approaches and techniques used to improve performance, focusing specifically on operations management, performance and target management and human resource deployment and development. International research indicates that there is a strong relationship between management practice and business performance. For example, McKinsey & Co. have found that improved management practice is associated with large increases in productivity and output¹⁰⁶.

The Report of the Management Development Council (MDC) published in 2010, suggested that the level of general management skills in Irish businesses was relatively poor, particularly in skills such as human resources, marketing and finance, and in forward planning and strategic management. Data from the World Management Survey 2014¹⁰⁷ also points at lower managerial skills in Ireland compared to other high-income countries such as Germany, Sweden and the UK. The lack of comprehensive up to date data on management skills is a barrier to benchmarking relative management performance in Ireland, identifying performance gaps and informing policy aimed at improving management practices.

Recommendation: Consider extending the scope of the Central Statistics Office's annual publication on productivity to benchmark the prevalence of management practices in Irish-owned and foreign-owned enterprise.

Responsibility: Central Statistics Office

The Council support the ambition in Enterprise 2025 Renewed, published in 2018, of delivering a demonstrable uplift in business leadership skills to drive innovation and internationalisation across a broader cohort of enterprises, and in management capability, so that all firms have the potential to achieve a one-step-up to higher business performance and growth. The State, through Enterprise Ireland and the Local Enterprise Offices (LEOs) offers customised management development supports and programmes designed to increase business effectiveness. The programmes are as follows:

- One of the ambitions in Enterprise Ireland Strategy 2017-2020 is to increase the leadership capabilities of management teams by increasing access to Leadership Development programmes (Innovation 4 Growth and International Selling), to drive scale and facilitate peer-to-peer learning and strengthening middle management leadership to accelerate the growth of companies (Management 4 Growth). Enterprise Ireland runs a range of mentoring and customised management development programmes delivered in collaboration with leading international providers.
- The LEOs also offer the Management Development Training Programme for their clients, facilitating business owner managers to build their management capacity. The Accelerate Management Development programme are designed to provide owners/managers with the management, leadership, business skills and knowledge to achieve business sustainability and growth.
- Skillnet Ireland, through Management Development programmes offers a suite of subsidised management development programmes to help business owners, managers and management teams achieve better results.

The Council has stressed in the past the need to broaden the reach of the existing management development programmes and increase the take up amongst firms, particularly locally trading SMEs. Focus could be placed on

¹⁰⁶ Report of the Management Development Council, 2010

¹⁰⁷ Cited in the OECD "Reforms for sustainable productivity Growth in Ireland"

enhanced exposure to mentoring, and/or peer-to-peer networking, and to modules related to managing sales growth. Participation in relevant management development programmes amongst SMEs not currently catered for by either the LEOs or EI could be promoted through the development of networks of managers. The network approach should be a demand-led method of increasing SME participation in management development. Some of the LEOs have already established management development networks in response to an identified need among former participants of the Management Development Programme for a regular forum where they could interact with peers, exchange ideas, share best practice and develop sales leads.

Another potential vehicle for an uplift in management practices is the Regional Skills Fora which provide a framework for the education and training providers and enterprise stakeholders, including the Enterprise Agencies, to work together in identifying and addressing the current and future skills needs of each region. The work of the Fora could be supported by data-sharing arrangements at regional level, such as the Skills for Growth initiative.

Recommendation: Identify and address the management development needs of each region on an ongoing basis and encourage data-sharing arrangements at regional level.

Responsibility: Department of Education and Skills, Local Enterprise Offices, Skillnet Ireland

Expenditure on management development needs to avoid deadweight and demonstrate clear returns on investment. Accordingly, it is important to conduct evaluations of the impact of existing programmes on business performance and promote the programmes of highest benefit to business.

Recommendation: Develop mechanisms to facilitate the tailoring and extension of relevant management development programme modules to cohorts of firms currently not engaging in such programmes.

Increase the awareness and take up of management development initiatives by enterprise, particularly micro-enterprises and SMEs

Responsibility: Department of Education and Skills, Department of Business, Enterprise and Innovation, Local Enterprise Offices, Skillnet Ireland, Regional Skills Fora

Recommendation: Extend the use of NTF funding via Management Development programmes to provide additional support to management development training and to generate an uplift in enterprise participation.

Responsibility: Department of Education and Skills

The pilot survey on management practices and productivity in the manufacturing sector conducted by the Office for National Statistics in 2016 indicates that on average, large businesses and multinationals have more structured management practices and higher levels of productivity. In addition, other research¹⁰⁸ shows that there is a positive correlation between the share of workers with previous experience in multinational companies working in non-multinational companies and the productivity in these companies. In this regard, the OECD suggests that the productivity performance of indigenous enterprise could be improved by recruiting workers from foreign-owned enterprises but a significant obstacle is the level of pay in the indigenous sector. In an effort to address this issue, the Government introduced a SME-focussed, share-based incentive for key employees (Key Employee Engagement Programme - KEEP) in January 2018 (discussed in detail in Chapter 1).

¹⁰⁸ Balsvik, R. Is Labor Mobility a Channel for Spillovers from Multinationals? Evidence from Norwegian Manufacturing, 2011

Building and Sustaining Talent for the Future

The presence of a skilled workforce has been a major contributor to Ireland's ability to attract foreign companies to locate here and to the successful internationalisation of the exporting cohort of indigenous enterprise. The availability of talent is also important to facilitate the country in benefiting from opportunities for technological development. Increasingly companies prioritise the availability of skilled local talent when establishing their base of operations. Despite our talented workforce and the high international rankings (Ireland is ranked 10th in the IMD Competitiveness Yearbook 2018 in terms of the ability of the education system to meet the needs of a competitive economy), there are challenges across the education and training system in terms of the following:

- the level of funding in Higher Education,
- boosting participation levels in lifelong learning and
- the need to respond to urgent and evolving skills needs.

Addressing these challenges will contribute towards preparing the talent base to take advantage of the new opportunities for improving productivity and economic growth presented by technological development.

Higher Education

The Higher Education system plays an important role in developing the skill set required to ensure Ireland's enterprises competitive globally. In this regard, continued ongoing investment in the formal education system is vital. As part of the Spending Review 2018 process, the Report Understanding the Funding Needs in Higher Education, shows that in the period 2007-2016, the number of both undergraduate and post-graduate students increased. Demographic trends indicate that demand for third level education will continue to increase in the future. However, the report points out that expenditure on tertiary education in Ireland (including both public and private spending) has been on a downward trajectory in the last years.

- As a proportion of GDP, higher education expenditure in 2015 was 1.1 per cent, a drop from 1.2 per cent of GDP in 2013.
- This is below both the OECD average of 1.5 per cent and a number of competitors, including the UK, Finland, Sweden and Netherlands.
- Expressed as a proportion of GNI*, (a better indicator in terms of the performance of the Irish economy), the level of higher education expenditure decreased from 1.2 per cent in 2008 to 0.8 per cent in 2016.

Investment in the higher education sector has increased in the period 2014-2018 and recorded a 9 per cent growth. However, the level of funding has not reached the levels invested in the period 2008-2011. In an effort to address the issue, in addition to the existing allocation of circa. €3 billion, the Government is providing an additional €674 million for the Education Sector for the period 2018-2021. Total funding on Higher Education will be €337 million higher in 2019 than in 2016. Capital investment of €150 million will also be allocated to the higher education, further education and training and research sectors in 2019.

In addition to this funding, a new Human Capital Initiative is to be established within the National Training Fund to allocate €300 million from the Fund's surplus, over the period 2020-2024 to meet the future skills needs of the economy and provide additional investment at levels 6-8 in higher education. This investment will underpin the provision of additional capacity across the higher education sector to meet the priority skill needs of enterprise, to drive regional jobs growth and development, and support key economic sectors in responding to the challenges of Brexit.

The National Development Plan also set out an additional €2.2 billion in Exchequer funding to 2027 to support infrastructure priorities in the higher education sector including the development of Technological Universities.

Recognising the gaps in granulated data to inform policy on the future funding needs of the Higher Education sector, the Spending Review Report recommends that analysis should focus on specific field of education costings.

A Review of the Allocation Model for Funding Higher Education Institutions (HEIs), carried out by an independent Expert Panel, provides several recommendations for reforming the funding model to improve transparency and consistency across HEIs and better alignment of national and regional skills development needs. The recommendations focus on a rebalancing of the funding mechanism to better recognise the cost of science, technology, engineering or mathematics (STEM) programmes, embedding lifelong learning at the heart of higher education provision and ensuring that the funding is responsive to demographic challenges and changing patterns of student demand.

An implementation group has been established focussing initially on the financial penalties system for serious governance breaches; the design of the new Innovation fund; the development of criteria for additional funding for multi-campus provision and agreement of the terms of reference for a review of the costing model for HEIs.

Acknowledging that factors such as globalisation, technological development and Brexit pose new requirements on the Irish labour market and the design of HEIs, the Government published the Higher Education System Performance Framework 2018–2020. The Framework sets out the Government’s key objectives for the higher education system and introduces high level targets to be achieved in this period. Targets of particular importance include increasing the number of apprenticeship registrations, the number of people engaged in lifelong learning, the proportion of the higher education cohort studying foreign languages, and achieve targets in the new ICT Action Plan. A key factor in achieving sustainable economic growth is the objective to provide a strong talent pipeline combining knowledge, skills and employability which responds effectively to the needs of enterprise. As implementation of the measures outlined in the Framework is underway, agreement and implementation of a sustainable funding model for the higher education sector becomes even more urgent.

There is a general recognition that the third level sector can no longer depend to the same extent on Exchequer funding¹⁰⁹. The Council reiterates its view that the funding model for higher education should combine increased State funding alongside deferred payment of fees through income contingent loans. The Council acknowledges that such an approach will require careful design to minimise any regressive effects which may arise, and to ensure that an appropriate and effective model of student support is in place to assist those most in need.

Recommendation: Develop and implement a long-term funding model that allows for increased participation and quality in higher education. The funding model should reflect the principles outlined by the Expert Group on Future Funding for Higher Education in relation to certainty and consistency; meeting national ambitions; supporting an increase in quality; enhancing access and participation; and ensuring fairness and balance.

Responsibility: Department of Education and Skills, Higher Education Authority

Recommendation: Collect data on the costs for specific education fields for the development of more evidence based, outcome-focused indicators, and ensure a clear understanding of the efficient cost of delivering a quality higher education as recommended by the Higher Education Spending Review report.

Responsibility: Department of Education and Skills, Higher Education Authority

¹⁰⁹ While the National Plan for Equity of Access to Higher Education 2015-2019 does not propose what the level of participation in higher education should be, the Plan is underpinned by the principle that everyone should have the opportunity to participate in post-secondary education and that the population of new entrants to higher education should be broadly representative of the general population. The Department of Education, however, has a target that by 2020, 60 per cent of Irish 30-34 year olds should have completed tertiary or equivalent education. See HEA, National Plan for Equity of Access to Higher Education 2015-2019, 2016

Recommendation: Implement the recommendations of the Review of the Allocation Model for Funding Higher Education Institutions to improve the transparency and accountability in the higher education sector.

Responsibility: Department of Education and Skills

Recommendation: Monitor the implementation of the recommendations of the Higher Education System Performance Framework 2018–2020 to maintain Ireland’s global position for skill availability. Ensure that the targets associated with apprenticeship registrations, lifelong learning, foreign languages and ICT skills are achieved.

Responsibility: Department of Education and Skills, Higher Education Authority

Output of Science and Technology Researchers

The proportion of the working age population with tertiary education in Ireland is above the euro area and OECD average. Ireland surpasses both the euro area and OECD average attainment for secondary education participation. However, Higher Education Authority data¹¹⁰, shows a decline in enrolments at Research Masters and Ph.D. level. In 2016/2017 there were 9,802 (full-time and part-time) postgraduate researchers compared to a peak of 10,367 in 2011/2012. The Third Progress Report on Innovation 2020 reports a net decrease of 34 enrolments from the 2013/14 baseline, and the report outlines a number of positive developments in 2017/2018 aimed at addressing the lack of progress in this area.

The National Development Plan places emphasis on expanding the Programme for Research in Third Level Institutions (PRTLTI) and increasing research capacity with additional PhD and MSc enrolments in third-level institutions in all regions. The rollout of a successor programme to PRTLTI is essential for increasing the quantity and quality of human capital. The Council re-emphasises the importance of delivering on the commitment in Innovation 2020 to increase the enrolment of postgraduate researchers by 500 places by 2020 from 1,750 to 2,250, particularly in disciplines aligned to enterprise skills needs.

Recommendation: Increase the number of research masters and PhD enrolments in line with the commitment set out in Innovation 2020, particularly in areas of strategic importance to enterprise. Act to increase the number of trained researchers moving to enterprise.

Responsibility: Science Foundation Ireland, Irish Research Council, Department of Education and Skills, Department of Business, Enterprise and Innovation

National Training Fund

The National Training Fund (NTF) is used to upskill those in employment, to provide training to those who wish to acquire skills for the purposes of taking up employment and to provide information relating to existing or future requirements for skills in the economy. The recovery of the labour market is reflected in the amount of levy collected; the NTF levy generated €431 million in 2017 and is expected to generate €553 million in 2018. Budget 2018 introduced an increase in the levy on employers of 0.1 per cent to 0.8 per cent of reckonable earnings in respect of employees in classes A and H employments (approximately 75 per cent of all insured employees). An increase of a further 0.1 per

¹¹⁰ Key Facts and Figures, HEA, 2018

cent will be applied in both 2019 and 2020. The additional contribution imposed on employer calls for a better alignment of the NTF with identified educational and training needs of businesses, particularly those of SMEs and businesses in regional locations. The rapid decline in unemployment and the emerging needs of the economy in recent years necessitated rebalancing the NTF funding and programmes. Since 2016 the proportion of NTF expenditure for the unemployed has been on a downward trajectory and is estimated at 62 per cent of total NTF funding in 2018, compared to 77 per cent in 2016.

The Council considers that in an economy facing full capacity and an accelerated demand for various skills, there is scope for further increasing the proportion of NTF funding to upskill people in employment and to provide targeted lifelong learning initiatives. Ongoing monitoring of the labour market to ensure that the Fund's resources are deployed in the most efficient manner and address skills needs that can support enhanced productivity, innovation and competitiveness within enterprise is essential. Setting appropriate targets and indicators and continuous evaluation of programmes is important for measuring the impact of programmes funded by the NTF. Intensifying the engagement with employers is central to determining and addressing skill needs. The National Skills Council, established in 2017, also provides advice on the emerging skill demands across the economy which informs decisions in respect of future NTF programmes.

An independent review of the National Training Fund was carried out in 2018 to examine a number of strategic policy and operational issues associated with the NTF and inform the future direction of the Fund. Some of the key recommendations of the review are as follows:

- focus on investment in close-to-labour market skill requirements, and in targeted interventions to support enterprise training and prepare individuals to take up employment opportunities
- introduce greater information sharing and coordination across programmes to increase employer buy-in
- increase focus on supporting in-company training underpinning increased productivity and innovation capacity particularly in SMEs
- fund SME upskilling as a target theme in Higher Education competitive funding programmes
- implement a structured process to facilitate NTF-focussed inputs from employers, employees and representative bodies prior to annual expenditure decisions
- expand performance metrics to support enhanced monitoring of outcomes of all NTF-funded programmes, including metrics on progression to employment, educational progression, employment placement and sustainment following programme participation and completion rates.

The Review indicates that the NTF should be more responsive to employer needs, highlighting the importance of increasing the role of employers in determining the priorities and strategic direction of the fund and the need for additional and refocused expenditure on programmes relevant to employers.

An Implementation Plan to deliver these recommendations was published alongside the Budget on 9 October 2018 with details of a new advisory group to the National Skills Council to strengthen governance and oversight and to secure employer input into the strategic direction of the Fund. Furthermore, a number of steps are being taken as part of Budget 2019 to align with the recommendations set out in the report:

- Additional support for close to labour market skills requirements
- Ring fencing €300 million of the existing surplus over 2020-2024 to meet the skills needs of the economy
- Increased focus on supporting in-company training
- Reallocation of NTF funding of FET for employment programmes below NFQ Level 5 to the Exchequer
- Increased support for close-to-labour-market skills programmes in areas of identified skills needs within Higher Education.

Recommendation: Implement the actions in the Implementation Plan which followed the independent review of the National Training Fund. Put in place a structured process to facilitate NTF-focussed inputs from employers, employees and representative bodies prior to annual expenditure decisions.

Continue to evaluate NTF funded programmes and ensure that they meet business needs, particularly those identified by SMEs and microenterprises.

Responsibility: Department of Education and Skills

Ensuring Ireland's workforce is prepared for the workplace of the future

Technological development is a key driver for product diversification, and creation of new industry sub-sectors and new job roles. Through improvement of process efficiency and the quality of goods and services, digitalisation is also an important contributor to productivity growth. The World Economic Forum's Report on the Future of Jobs 2018 considers that four specific technological advances—ubiquitous high-speed mobile internet; artificial intelligence; widespread adoption of big data analytics; and cloud technology—are set to dominate the 2018–2022 period as positive drivers of business growth. In addition, the WEF found that by 2022, 59 per cent of employers surveyed expect that they will have significantly modified how they produce and distribute, by changing the composition of their value chain, and nearly half expect to have modified their geographical base of operations. When determining job location decisions, companies overwhelmingly prioritise the availability of skilled local talent as their foremost consideration, with 74 per cent of respondents providing this factor as their key consideration.

However, reaping the benefits of digitalisation is dependent on the presence of a range of specialist skills making it crucial that Government, businesses and employees ensure the availability of these skills. The adoption of new technologies, threatens a significant number of jobs, particularly in areas with repetitive, manual tasks (associated with lower levels of educational attainment), but also some sales and customer service occupations. Roles in other sectors have the potential to be significantly impacted by automation, machine learning, digitalisation (e.g. accounting, other financial services, administration, health services, transportation). Against the backdrop of an accelerating rate of digitalisation in the workplaces, the State and businesses have a key task to provide employees with supports to retrain and upskill.

The OECD estimates that:

- 8 per cent of Irish jobs are estimated to be at high risk of automation (Jobs with a probability of being automated of at least 70%) compared to the UK (9%) and the OECD (10%)
- A larger share of Irish jobs (22%), however, is estimated to have a lower risk of automation (50-70%) but a significant risk of seeing the majority of the tasks they entail changed by technology.

In a world where the uptake of digital technologies, such as automation, advanced analytics, artificial intelligence and the Internet of things is intensifying, Ireland's major challenge is to equip more than half of the population with at least basic digital skills.

The Government has undertaken some steps to address the skills challenges of digitalisation, for example, Ireland's first Masters in Artificial Intelligence (AI), launched in January 2018 is designed by companies in the Technology Ireland ICT Skillnet and the University of Limerick; Springboard+ provides a number of courses in this area, including the Specialist Diploma in Automation and Control in NUIG; a Graduate Certificate in Artificial Intelligence in DCU; and a Certificate in Sensors for Autonomous Vehicles in IT Sligo.

The Council also welcomes the EGFSN's study on the 'Skills for the Digital Economy', the purpose of which is to assess the impact of digitalisation on job roles and sectors across the economy in Ireland. The study identified the following skills as particularly important in a workplace shaped by digital technology:

- leadership skills, innovative thinking on how technology can be used to improve processes and business activities, encompassing skills, such as, emotional intelligence and strategic thinking
- interpersonal skills, including change management and content presentation, facilitation and conflict resolution. These skills are vital in implementing technology while maintaining a positive and productive culture within an organisation
- business skills, needed to enhance project manager effectiveness, business analysis skills to understand new approaches to programme management, and the ability then to influence stakeholders, business partners and those in other organisational silos.

Recommendation: Ensure that the education system is equipped to respond to the skill requirements of the next generation of employees who will be working in a digitalised environment, by consulting with employers across the different sectors.

Responsibility: Department of Education and Skills, Department of Business, Enterprise and Innovation

ICT Skills

CSO data for Q2 2018 shows that at 2 per cent, the job vacancy rate for the ICT sector is above the 1.1 per cent overall job vacancy rate. The highly competitive market for ICT skills, and the need to continue supplying the growing demand for ICT talent to businesses, makes it crucial that the shortages are addressed. This requires continued expansion of the ICT graduate programmes, upskilling, apprenticeship programmes and attracting ICT talent from abroad.

To ensure a coherent approach to developing and enhancing ICT literacy, ICT education and training should be aligned with the overall strategic goals of the Digital Agenda.

The expansion of the digital economy poses additional requirements on ICT specialists in terms of the skills needed to adopt new technologies, as employers increasingly require ICT specialists with business, analytical and foreign language skills. It is imperative that the education system also respond to the need for emerging skills and introduce courses in areas such as AI, blockchain, cybersecurity, to meet future skills needs. Through the Digital Strategy for schools 2015-2020, in introducing ICT and digital skills in primary school, they become second nature to children and open their minds to the opportunities these disciplines offer. The National Council for Curriculum and Assessment is currently considering how best to integrate coding into the primary school curriculum.

The Expert Group on Future Skills Needs conducted a refresh of the ICT Skills Demand Forecast previously undertaken in 2013, with the aim of establishing the level of demand for High Level ICT Skills at NFQ Levels 6/7 and 8+ over the period 2017-2022. The forecast informed the development of a new ICT Skills Action Plan 2019-2022. The refresh seeks to match the forecast demand with supply measures that ensure there is a requisite pool of high-level ICT skills across the economy. Based on engagement with stakeholders, it also provided recommendations on how to boost the quantity, quality and diversity of ICT Practitioner skillsets and competences in Ireland.

The ICT Skills Action Plan 2019-2022 introduces a suite of new actions that aim to maintain Ireland's status as a global leader for the development and attraction of high-level ICT talent through a partnership approach between Government, industry, and the education and training sector. As well as facilitating international recruitment of ICT talent, the Plan places a focus on fully utilising the range of learning opportunities available across the education and training system to meet high-level ICT skill needs by:

- delivering a progression pathway at further and higher education - Springboard: Pathways. This will deliver a new reskilling pathway between the further education level to ICT programmes at NFQ level 6 and 7. It is aimed at attracting learners from diverse professional backgrounds into ICT with a particular focus on

attracting females into the sector, reskilling returners and individuals who are currently employed in industries which may be at risk due to technological advancements

- expanding ICT Apprenticeships
- reskilling professionals in the ICT sector through Skillnet Ireland
- increasing provision of ICT places in Higher Education.

There are changes occurring within the Further Education and Training (FET) sector aimed at improving the capacity in the area of digital inclusion and the provision of digital skills. The Department of Education and Skills, SOLAS and the Education and Training Boards (ETBs) are working with the FET sector on the implementation of the Technology Enhanced Learning Strategy. This includes 18 actions, timelines and performance indicators and will build on capacity and good practice in TEL to expand access to, and improve and innovate FET provision. It has been developed through a consultative process with learners, ETBs and the enterprise community. Programmes are provided within ETBs for individuals to develop their digital literacy. Basic ICT tuition is integrated within adult literacy and numeracy provision. In Budget 2019, Skillnet Ireland received an additional €6.3 million in funding to increase the number of places on ICT related training by 25 per cent to over 5,100. 70 per cent of this provision is at NFQ level 6 or higher.

Two new ICT Apprenticeship programmes (Associate Professional Network Technician and Associate Professional Software Developer) are in place. A further five programmes, in development (NFQ levels 6 to 9), are expected to commence in 2019. The ICT apprenticeships will be promoted to companies at a regional level to ensure that ICT skill needs nationwide are being addressed.

A breath of STEM skills is crucial for achieving productivity growth, innovation and efficiencies. As a percentage of total third level graduates, Ireland produced more science, maths, statistics and ICT graduates than the euro area average. However, the proportion of engineering, manufacturing and construction graduates is below the euro area average. The STEM Education Policy Statement 2017-2026 and Implementation Plan 2017-2019, aim to enhance the environment for developing and deploying STEM talent.

The digital transformation is influencing the way we live and work and it is important to ensure that women participate fully in this process. The number of ICT specialists more than doubled between 2007 and 2017. The share of employed ICT specialists in total employment increased over the same period, representing 4.4 per cent of total employment in Ireland, in 2017. However, the majority of ICT specialists are men (79.2%). In 2017 only one fifth of all ICT specialists in Ireland were women (20.8%), above the EU average (17.2%), but below Denmark, Sweden and Finland, the most advanced digital economies in the EU¹¹¹. In keeping with EU trends, the figures for women's participation in ICT in Ireland are not improving and the proportion of Irish female ICT specialists in 2017 was 23.1 per cent¹¹². The European Commission Study, *Women in the Digital Age*, published in 2018, aims to identify key factors related to the participation of women in ICT, and analyse practices enabling women's participation in the digital world. Using data from 2015, the study found that annual productivity loss for the European economy due to women leaving their digital jobs to become inactive is €16.1 billion¹¹³. The study suggests that among the reasons, for the limited participation of females in the digital economy, are:

- lower interest in STEM studies and lack of skills (16.6 STEM graduates per 1000 individuals in 2016 were women, compared to 41.3 men, in Ireland)
- persistence of strong unconscious biases and stereotypes
- lack of role models.

¹¹¹ Digital Economy and Society Index (DESI) 2018

¹¹² Eurostat, ICT specialists in employment, 2018

¹¹³ The figure is conservative, since it only considers women that leave their jobs to stay at home, and not those who move to less productive sectors of the economy.

Often, women lack confidence to embark in STEM fields and professions. If existing biases and perceptions are not addressed, rapid economic advances achieved by digital transformation will create an even larger gender gap in the sector. To address the issues of the low level of female ICT specialists, the study recommends changes in the education process and promoting awareness against biases, including:

- creating awareness campaigns to fight existing gender biases in the digital sector and in gender roles in society; providing guidance and inspiring others to pursue an ICT
- providing formal and informal digital skills training (including introductory courses by levels of experience for young girls), to mitigate the experience and confidence gap and to make them more attractive and closer to young women's interests; teaching methodologies that are more focused on the practical applications of technologies; ensuring that lifelong learning programmes enable women to make smoother transitions throughout their life cycles, keep their skills up-to-date and acquire new skills to meet the challenges of the digital world.

Recommendation: Expedite the implementation of the ICT Skills Action Plan 2019-2022, when published. Encourage employers' engagement with ICT apprenticeships.

Responsibility: Department of Education and Skills

Recommendation: Promote awareness of the increasing importance of ICT skills in the economy, awareness of ICT careers in schools and further and higher education and ICT as a career choice to female students.

Responsibility: Department of Education and Skills, Science Foundation Ireland, Skillnet Ireland

Responding to the skill needs arising from Brexit

The Expert Group on Future Skills Needs Report on examining the skills needs arising from the potential trade implications of a hard Brexit was published in June 2018. The Report focusses on the qualifications, skillsets and competences associated with facilitation of trade and the movement of trade across international borders (i.e. customs clearance, logistics, supply chain management) and trade diversification into new markets (international management, sales, marketing, design and development, foreign languages, cultural awareness). It found that not only would a hard Brexit affect some sectors profoundly, and lead to fundamental changes in the way goods are transported, but also other, less exposed sectors, will be affected as a result of access to the UK landbridge, regulatory divergence and financial considerations. This will increase skill requirements in the area of international trading and Logistics/Supply Chain activities. The report noted a lack of preparedness and understanding within businesses of the potential effect of Brexit and indicates that SMEs will be particularly exposed. The Report acknowledges that there was a significant amount of training and education provided to help those engaged in international trade, exploit new markets and mitigate the impact of Brexit in terms of reduced trade with the UK and challenges to the supply chain. However, the presence of skills shortages and recruitment difficulties identified by the study indicates that there are clear skills gaps associated with Brexit. Current training and education provision can be better marketed and promoted to both enterprises and sectors with particular skills requirements, and indeed to prospective students. The Report also warns that the increased demand for logistics and supply chain expertise in other EU countries affected by Brexit, and the potentially more complex trade and migration channels to and from Ireland post-Brexit, could have a negative impact on the availability of skills in this area. In this regard, improving Ireland's attractiveness as a location to work and live remains crucial.

To address the skills challenges identified, the Report makes eight overarching recommendations as follows:

- launch an intensified industry awareness and outreach campaign to enhance understanding amongst internationally trading and Freight Transport, Distribution and Logistics (FTDL) enterprises and proactively address the skills needs arising from Brexit
- introduce additional customs awareness and higher-level customs clearance training and advice for third country trading as the implications of Brexit become clearer
- enhance the provision of financial management advice, training and mentoring for internationally trading enterprises, with a particular focus on currency management, VAT for third country trading, and contract management
- undertake targeted campaigns to attract skilled personnel from overseas
- promote measures to enhance the ability to diversify trade (with non-UK markets) by enhancing international trading and Logistics/Supply Chain content in education and training provision; build up Ireland's foreign language capability for international trade (particularly with euro zone markets); enhance intercultural awareness and international business experience; build up product design and development skills
- establish a National Logistics and Supply Chain Skills Group, to manage a coordinated response from the Logistics and Supply Chain sectors to promote the sectors and their skills needs
- develop a communication toolkit and awareness raising campaigns for Logistics, Supply Chain and Transportation careers. Improve understanding of the cross sectoral skills needs, employment numbers and career opportunities in supply chain activities
- support the development, promotion, the rollout of and engagement with the Logistics and Service apprenticeship programme.

Recommendation: Expedite the implementation of the recommendations set out in the study on *Addressing the Skills Needs Arising from the Potential Trade Implications of Brexit*.

Responsibility: Department of Agriculture, Bord Bia, Department of Business, Enterprise and Innovation, IDA Ireland, Enterprise Ireland, Department of Education and Skills, Department of Foreign Affairs and Trade, Department of Transport, Tourism and Sport, Office of the Revenue Commissioners

Language Skills and Cultural Awareness

Foreign language proficiency and cultural awareness are fundamental in supporting internationalisation and market diversification. The competency levels in foreign languages in Ireland remains low. In an international context, the IMD's Competitiveness Yearbook 2018 ranks Ireland 46th out of 63 benchmarked economies in terms of perceptions that language skills meet the needs of business. A consultation conducted by the Department of Education and Skills, which fed into the development of Ireland's Strategy for Foreign Languages in Education, identified a number of challenges to improving language skills. These include the shortage of qualified (foreign language) teachers, the limited choice of foreign languages in schools, low uptake of foreign languages in further and higher education and lack of awareness of the opportunities that foreign languages offer for careers and mobility. Enterprise are also indicating that there is a shortage of graduates and sufficiently skilled people with proficiency in the languages of trade and business. Supporting learners to communicate effectively and improve their standards of competence in languages is important in the context of the increasing global influence of non-English speaking countries, Brexit and the need for internationalisation and export market diversification. Language skills are important for attracting FDI to

Ireland, improving the competitiveness of the tourism and hospitality sector, and diversifying the sources of intermediate goods inputs.

Languages Connect, Ireland's Strategy for Foreign Languages in Education 2017-2026, aims to enable learners to communicate effectively and improve their standards of competence in languages. Through a number of measures directed at improving language proficiency, diversity and immersion, the Strategy's Implementation Plan 2017-2022 sets out a roadmap with detailed actions and timescales to improve teaching and learning of foreign languages. A Foreign Languages Advisory Group (FLAG) was set up to oversee and monitor the implementation of the Strategy. A Languages Connect portal has been launched to provide information on the benefits of language learning. NTF funding will also focus on mainstream higher education programmes, producing graduates to meet identified areas of skill needs, including languages.

The Council supports the ambitious targets set in the Implementation Plan. Among the targets identified are to:

- Increase the uptake in key languages from their present Leaving Certificate examination uptakes: German (13%), Spanish (11%), Italian (0.9%), Russian (0.6%), Japanese (0.6%), Arabic (0.2%), Mandarin Chinese (N/A), Portuguese (0.2% - non-curricular)
- Increase the number of post-primary schools offering two or more foreign languages and increase the number of students sitting two languages for state examinations by 25 per cent
- Increase the proportion of the higher education cohort studying a foreign language, in any capacity, as part of their course to 20 per cent
- Increase the number of participants in Erasmus+ by at least 50 per cent
- Double the number of teachers participating in teacher mobility programmes.

Among the goals of the Implementation Plan is enhancing employer engagement in the development and use of foreign languages. In this regard, an awareness-raising campaign highlighting the benefits of employing graduates with language skills that targets SMEs will be important. The enterprise agencies should provide supports to business to invest in the development of language skills within their business and encourage SMEs to include language skills in their company skills plans.

To succeed, the Plan requires significant resources, time, and coordinated efforts of the institutions, involved in the education system, business and parents and students. Benchmarking Ireland's performance against competitors as the implementation of the Strategy progresses is also important to inform on how successful the measures are in a global context.

In September 2018, the Department of Education and Skills announced funding for the Modern Foreign Language Teacher Upskilling scheme which will enable Post-Primary school. MFL teachers to apply for funding to upskill teachers qualified in a language they are not currently teaching, and which they can introduce and develop to build additional language teaching capacity in schools.

Recommendation: Ensure sufficient resourcing for implementing the objectives of the Languages Connect Strategy. Progress the actions in the Language Connect Implementation Plan 2017-2022. Raise awareness of the benefits of employing people with language skills and intensify supports to encourage companies, particularly SMEs, to invest in the development of language skills.

Responsibility: Department of Education and Skills, Enterprise Ireland, IDA Ireland

Recommendation: Benchmark Ireland's relative performance in languages at all levels. Align the assessment of foreign language learning proficiency outcomes, at further and higher education, to the Common European Framework of Reference for languages, to facilitate comparison of linguistic competence with international competitors.

Responsibility: Department of Education and Skills

Lifelong Learning

To keep pace with technology development and the speed with which it is implemented in production and organisation processes, investing in lifelong education and training participation is crucial. The percentage of people aged 25-64 in receipt of education and training (both formal and non-formal) in Ireland has increased from 7.5 per cent to 8.9 per cent in the period 2013-2017.

A further €3 million contribution from the NTF has been provided for Springboard+ 2018, which, alongside other provision, aims to improve lifelong learning participation. People in employment who wish to upskill or reskill in areas of identified skills needs are now eligible to participate in Springboard+. The Action Plan for Education 2017 commits to provide a total 50,000 Springboard+ places by 2021. The requirement for employers to support employees to engage with lifelong learning remains a critical factor for the success of the various initiatives.

€6 million additional funding for Skillnet Ireland and €11 million for employee skills development initiatives has been provided in Budget 2019. Continued investment in the development and upskilling of the workforce, particularly in a fast-changing economy, provides benefits in terms of improved productivity and competitiveness.

In terms of the gap between the individual's jobs skills and the demand of the labour market, OECD data show that in 2015, 35 per cent of Irish workers were employed in a different field from the area they specialised in, above the euro area-15 average (31.2%). In terms of qualification mismatch, at 44 per cent (31% underqualified and 13% overqualified), Ireland also performs worse than the euro area 15 average (35.8%).

The new Further Education and Training Policy Framework - Supporting Working Lives and Enterprise Growth in Ireland, published in July 2018, provides key guidance, direction and targets in supporting the upskilling of those in employment. An important aspect of the Framework is assisting enhanced productivity in Irish SMEs by providing funding for skills development. The policy targets SMEs, with limited capacity to identify and meet employee skills development needs, and industry sectors with particular skills needs, arising from emerging opportunities or as a result of economic vulnerabilities. The Framework envisages that over 40,000 workers will be engaging in state supported skills development and 4,500 SMEs will be supported to enhance the skills of employees.

The framework focuses on employees with lower skills (below NQF Level 5) with a particular emphasis on employees who are in jobs with a low skill requirement, those 50+ years of age, or those in sectors or occupations at risk of economic displacement. Given the emphasis on these cohorts, the framework has an important role in addressing job losses as a result of increased digitalisation and boosting lifelong learning levels.

Recommendation: Set ambitious targets to provide supports for upskilling employees for each Education and Training Board and develop national guidelines on the implementation of the Further Education and Training Policy Framework 2018-2021 to ensure it responds to business needs.

Responsibility: SOLAS, Education Training Boards

The Action Plan for Education 2018 also places emphasis on increasing participation in lifelong learning. The Plan envisages that Ireland's lifelong learning participation rate increase to 10 per cent by 2020 and 15 per cent by 2025.

The EXPLORE programme, launched in 2018 by the Department of Education and Skills, aims to increase participation rates in Lifelong Learning and provide an opportunity for upskilling those in employment, particularly persons over 35 years of age in manufacturing employment. Delivered by the Education and Training Boards in collaboration with employers and the Regional Skills Forum Managers, it will focus on the lack of digital skills and the issue of skills obsolescence.

The Department of Education and Skills is conducting a review of existing career guidance tools and career information for post-primary, further education, and higher education learners. The purpose of the review is to ensure

that a quality, relevant career guidance support service is being provided to learners. It is anticipated that the report will recommend a whole-of-life approach to career guidance – from school to retirement, to better support the lifelong learning agenda and reflect the greater frequency of skills obsolescence and changes in employment.

Recommendation: Roll out the EXPLORE programme, following the evaluation of the pilot, to provide access for older, low skilled employees, to informal and formal learning opportunities in order to gain new skills, including digital skills.

Responsibility: Department of Education and Skills

Recommendation: Implement the findings of the Review of Career Guidance.

Responsibility: Department of Education and Skills

Apprenticeships

Responding to the needs of upskilling and reskilling the workforce, the Action Plan to Expand Traineeships and Apprenticeships 2016-2020 aims to significantly enhance the apprenticeship system over five years. The framework could compliment other initiatives to help realising the benefits of digitalisation and mitigate the negative impacts of automation. The Action Plan sets a target of 6,197 apprentice registrations in 2018, comprising 4,697 registrations on craft-based apprenticeships and 1,500 registrations on apprenticeships introduced since 2016. A target of 25 new apprenticeship programmes was also set for the end of 2018. It is expected that the target of 4,697 registrations on craft-based apprenticeships will be achieved in 2018 but only 800-900 registrations on new apprenticeships will be registered in 2018, falling short of the 1,500 target.

New national apprenticeships are formally validated by an awarding body (QQI or another body with power to make awards on the National Framework of Qualifications). Some apprenticeship consortia experienced a longer period of time to complete the validation process than was originally envisaged. QQI is working with the Department of Education and Skills and SOLAS on issues arising from the experience of having validated a number of new apprenticeships. The objective is to safeguard the integrity and quality of the validation process but also to ensure that the process is sufficiently agile and responsive in a fast-moving enterprise-education environment.

Recognising the need to change perceptions about the role of apprenticeships, the second phase of the national promotional campaign, Generation Apprenticeship, focusses on employers. As part of the campaign the Apprenticeship Council is engaging with industry to gather feedback on apprenticeship provision, discuss practical challenges, opportunities emerging, and plans for the future.

The rapid development of technology means that employers are identifying new skill needs on an ongoing basis. It is crucial that the apprenticeship system is fit to respond promptly to these needs. When considering if and how the apprenticeship system could address the new skills needs, industry participation is vital.

A 'jobs market' portal, will allow approved employers to advertise apprenticeships online. It will be *launched on a pilot basis* and rolled out pending successful completion of the pilot.

The construction industry is one of the major beneficiaries of investment in skills development. Seventeen national construction-related apprenticeships are in place and over 7,000 apprentices are completing training on these programmes. A further seven programmes, which will support construction industry, are due to be rolled out in the coming months. Given the importance of the constructions sector, in delivering the projects such as Rebuilding Ireland and Project 2040, and the persistent low productivity levels in the sector, the Council welcomes the emphasis on apprenticeship programmes for the sector.

The Trades and Apprenticeships Skills Survey, published by the Construction Industry Federation, provided several recommendations, including a relaunch of the shared apprenticeship initiative which was piloted during 2016-2017. The shared apprenticeship scheme allows more than one employer to share the training of an apprentice in a structured way and stakeholders consider it would facilitate smaller employers to take on apprentices. Currently, SOLAS and the Construction Industry Federation are examining the demand for a shared apprenticeship scheme and its feasibility as a national initiative.

Recommendation: Streamline the operation of the apprenticeship validation process and improve the communication of requirements to providers and consortia.

Responsibility: Quality and Qualifications Ireland, SOLAS, Department of Education and Skills

Recommendation: Expand apprenticeship programmes to respond to emerging skill needs, following feedback from representatives in various industry sectors. Develop supports for employers to actively engage in the take up of new, non-craft apprenticeships, including through development of training plans and guidelines.

Responsibility: Department of Education and Skills, Enterprise Ireland, SOLAS, Higher Education Authority

Recommendation: Prioritise the recommendations of the Review of pathways to participation in apprenticeship. After completion of the pilot phase, roll out the apprenticeships online portal to provide transparency in opportunities for potential apprentices.

Responsibility: Department of Education and Skills

Recommendation: Consider the demand and feasibility of introducing a shared apprenticeship scheme in the construction sector.

Responsibility: SOLAS

Infrastructure

The presence of a high quality competitively priced infrastructure is key for achieving long term productivity growth, driving the competitiveness of indigenous enterprises and enhancing Ireland's position as an attractive location for talent and inward investment. World class infrastructure strengthens economic growth as it helps raise total factor productivity by reducing transaction and other costs, thus allowing a more efficient use of productive inputs. The OECD¹¹⁴ noted that high quality infrastructure can contribute towards the ability of local firms to embed themselves into global value chains and grow their business.

Notwithstanding increases in investment in infrastructure in recent years, continued economic growth, demographic pressures and an underinvestment in the last decade means that Irish infrastructure continues to lag its main competitors. The lack of significant investment in infrastructure in recent years is reflected in Ireland's score in international competitiveness rankings. Ireland is ranked 34th in the world (out of 140 economies) and our score is lower compared to the previous year and the UK's 11th position in the World Economic Forum 2018/2019 report.

¹¹⁴ B. Westmore and Y. Jin, Reforms for sustainable productivity growth in Ireland, Working papers N1489, OECD 2018

As the economy improved, and the public finances recovered, Government investment is increasing and in 2016 it was 1.9 per cent of GDP but remains low in an international context and relative to pre-crisis levels. Based on Ireland's Gross Fixed Capital Formation as a share of GDP of around 3 per cent between 1995 to 2015 (the average for the EU15), the National Development Plan considers that a value of 3 per cent of an appropriate measure of national income can be considered as a target for the long-term average level of public capital spending for Ireland. Budget 2019 allocated €7.3 billion in capital expenditure for next year, an annual increase of 24 per cent and representing 3.5 per cent of GNI*. This should place Ireland in the top ten European countries for the level of public investment in this area.

Project Ireland 2040 is the overarching policy and planning framework for the social, economic and cultural development of Ireland. The National Development Plan (NDP) 2018-2027, part of Project Ireland 2040, sets out Ireland's public capital infrastructure priorities and commits €115 billion for the delivery of the National Planning Framework (NPF) over the next decade. The capital spending plan envisages increasing public capital investment to 3.8 per cent of GNI* in 2021 and 4 per cent by 2024, with sustained investment averaging 4 per cent on an annual basis over the period 2022 to 2027.

The Council considers that the Government faces a critical challenge to deliver effectively-connected infrastructure projects under Project Ireland 2040 that drive future productivity growth and maximise returns on investment while at the same time avoid overheating the economy and ensure value for money in the face of low productivity levels and high-demand in the construction sector.

In order to succeed, it is crucial that the policies contained within the NPF are aligned with and supported by new and improved policy co-ordination and oversight across all levels of government and that the measures underpinning the implementation of the NDP are prioritised across Government. In this regard the Government established as follows:

- a high-level Project Ireland 2040 Delivery Board. Its task is to provide strategic direction and leadership to the NDP and NPF implementation process by overseeing the implementation structures and performance across the various sectors and ensuring a co-ordinated and collaborative whole-of-Government approach to NDP and NPF delivery
- an Infrastructure Projects Office to coordinate reporting on the NDP and drive reforms in relation to areas, such as, project appraisal and selection
- a Construction Sector Working Group to ensure regular and open dialogue between Government and the construction sector in relation to issues that may affect the successful delivery of the NDP on a value-for-money basis for the State.

As part of Project Ireland 2040, the Government established a number of new funds which are designed to stimulate renewal and investment in rural and urban areas, the environment and innovation and contribute towards balanced regional development. Leveraging investment from other sources and funding that will support collaborative bids on a competitive basis are important features of the newly established funds, thus aiming to ensure that funds are invested with the greatest economic and social return.

The National Planning Framework will be implemented at regional level through the preparation of statutory Regional Spatial and Economic Strategies (RSES) for the three Regional Assembly areas. This will link strategic planning and investment at the national level with the physical planning and local economic and community development functions of local authorities. The Strategies are currently being prepared for public consultation and are due to be finalised in the first half of 2019. Reviews and updates of county and city development plans will be conducted to ensure strategic co-ordination and consistency between national, regional and local levels. Each regional assembly will be required to put in place effective implementation and monitoring arrangements.

The Council supports the updating and further development of the Capital Projects Tracker, which will provide more comprehensive information on the cost and delivery of the various infrastructure projects identified in the NDP. The tracker includes investments to be delivered through the NDP for the period 2018- 2022, along with specific

investments thereafter which were given allocations under the NDP, e.g. the Metrolink. The tracker currently focuses on projects and programmes with costs greater than €20 million. While it does not provide an exhaustive list of all capital expenditure, the list of projects serves to highlight the diverse range of infrastructural demands competing for the resources of the State. However, it is equally important to keep track of the performance of existing infrastructure. In 'Reforms for sustainable productivity growth in Ireland' study, the OECD identifies that further efforts to systematically collect information on the financial and non-financial performance of existing infrastructure will provide benefits in terms of using the data to create indicators for benchmarking infrastructure performance over time, on a sectoral basis, and where possible, relative to other countries, and inform public policy about the best delivery model for future projects and emerging capacity constraints.

Recommendation: Refine and expand the coverage of the Capital Projects Tracker to allow for monitoring as well as the status update of infrastructure projects planned under National Development Plan.

Responsibility: Department of Public Expenditure and Reform

Transport Infrastructure

National and international connectivity is critically important in an increasingly globalised economy. Given Ireland's geographic location and the open nature of the Irish economy, the Council supports the prioritisation of public investment in transport infrastructure in the NDP. Ireland's road, rail, airports and ports are essential for enhancing connectivity, reducing traffic congestion and facilitating labour, skills and goods to flow. This in turn fosters enterprise growth and improves quality of life.

Land Transport

An environmentally sustainable transport system is essential to meet the significant increase in travel demand in recent years, to ease urban congestion and achieve the national policy objective of a low-carbon economy. A high-quality transport system improves the efficiency of supply chains, by facilitating local firms to embed themselves into global value chains and grow their business. Access to markets for people and goods is one of the major factors for companies in deciding where to locate. Continued economic growth along with falling unemployment and rising population has significantly increased the demand on existing transport infrastructure. Parts of the transportation network (urban areas and inter-urban corridors) are showing signs of increasing congestion and overcrowding.

The Council is concerned that deficiencies in the transport infrastructure are adversely affecting national competitiveness, reducing productivity and raising business costs and diminish the attractiveness of Ireland as a location to set up business, live and work.

For achieving sustainable economic growth, it is important that the Irish transport infrastructure is secure, flexible, and well inter-connected. Furthermore, given our environmental commitments, continued actions to reducing greenhouse gas emissions will be essential.

The return to economic growth and Ireland's high dependence on car usage has increased pressure on transport infrastructure capacity. This manifests itself in increased journey times, traffic congestion and increased emissions. CSO Census¹³⁵ data shows that, 61.4 per cent of working commuters drove to work in 2016. Commuting times are rising in every county, and nearly 200,000 commuters (11 % of all commuters) spent an hour or more commuting to work in 2016, with an average travel time of 74 minutes. Nearly 53,000 workers commuted 90 minutes or more. On

¹³⁵ CSO, Census 2016

average, journey times in busy periods take more time in Dublin (43%), Cork (34%) and Limerick (27%) than free flow. Dublin is one of the most traffic congested cities in Europe with morning and evening congestion times 80 per cent and 86 per cent higher compared to a free flow.

Analysis of congestion in the Greater Dublin area undertaken by the Department of Transport¹¹⁶ estimates the cost of time lost due to aggravated congestion is €358 million in the base year (2012). Most of the costs of aggravated congestion are incurred between the M50 and the canals, on key arterial routes. The cost of congestion is forecasted to rise to €2.08 billion per year in 2033. The annual cost is forecasted to grow moderately up until at least 2025, but will begin to increase sharply thereafter.

Given Ireland's reliance on private cars, promoting alternative modes of travel, particularly in the main cities and surrounding areas will benefit all road users in terms of reduced congestion, cost savings and environmental benefits. To promote greater use of public transport (bus and rail), Ireland needs a high quality, frequent, reliable and competitively priced public transport system. The Council welcomes the €8.6 billion planned investment in public transport projects under the NDP which aims to improve the public transport system, particularly across the five cities (Dublin, Cork, Limerick, Galway and Waterford). The purpose of the investment is to maintain existing public transport infrastructure across the country to ensure quality levels of service, accessibility and connectivity, as well as facilitate new projects. The plan also caters for traffic management, bus priority and other smarter travel projects along with new urban cycling and walking routes to allow transport infrastructure to function more effectively and relieve congestion.

CSO¹¹⁷ data shows that in the first quarter of 2018, a total of 35.6 million tonnes of goods were transported by road, an annual increase of 1.8 per cent. Over the same period, there was a 7.8 per cent increase in the number of goods vehicles on the roads. As the number of private and commercial vehicles and kilometres travelled continues to grow, effective and targeted investment to upgrade Ireland's road network is essential.

Continued investment in maintenance of existing road infrastructures, improving the connection between Ireland's major cities and the connectivity between main regional urban centres is essential for supporting enterprise growth and job creation. The National Development Plan (NDP) allocated €11.1 billion for investment in the road networks in the period 2018 -2027, with €6.6 billion on national roads and €4.5 billion on local and regional roads. The investment will facilitate the maintenance of existing infrastructure, start number of new projects, improve road safety and help achieve emissions targets. It is important that we continue to prioritise the projects that address infrastructure bottle necks while in the meantime monitor the likelihood of emerging bottle-necks. Furthermore, it is also critical, given the size of the investment, that the projects are completed in timely and efficient manner.

Following the publication of the NPF and NDP, the Department of Transport, Tourism and Sport is carrying out Planning, Land Use and Transport Outlook (PLUTO) 2040, a strategic assessment of transport policies and approaches for transport planning and investment. This builds on the previous work undertaken for the Strategic Framework for Investment in Land Transport (SFILT). SFILT highlighted the significant ongoing capital and current expenditure required simply to maintain the transport assets to an adequate standard. That level will be reached in terms of capital spending in 2021, under the NDP - maintenance spending was necessarily limited by the fiscal position for many years. However, restoring the transport network to an adequate standard may require some additional investment, over and above investment in any additional projects that are funded.

The PLUTO study will identify required infrastructure and service provision to meet the future needs for land transport. It is essential that it takes into consideration the emissions targets and technological advancements and develops policies focussed on delivery of sustainable transport that meets travel needs. Due to the threats posed by Brexit, the study needs to consider investment in Ireland's strategic links and improve land transport access to those links. Priority

¹¹⁶ Department of Transport, Tourism and Sport/IGESS, The Costs of Congestion, An Analysis of the Greater Dublin Area, 2017

¹¹⁷ CSO: Road Freight Transport Survey Q1 2018

should be given to projects facilitating urban growth, while also improving interurban connectivity and catering for rural development. It is envisaged that a draft strategy will be published for consultation in Q4 2018. The Department of Transport, Tourism and Sport is carrying out a review of public transport policy in line with the Programme for a Partnership Government commitment to “ensure services are sustainable into the future and are meeting the need of a modern economy”. All elements of public transport are being considered in the policy review.

Recommendation: Develop an ambitious transport investment strategy which encourages sustainable transport, is resilient to current and future threats and embraces new technological opportunities. In developing the strategy, ensure a coherent and joined up approach to planning across Government.

Responsibility: Department of Transport, Tourism and Sport, Transport Infrastructure Ireland

Air Transport

Given Ireland’s geographic position, airports and ports play a major role in safeguarding and enhancing Ireland’s international connectivity. This is fundamental to Ireland’s international competitiveness, trading performance and enhancing its attractiveness to foreign direct investment. Effective and efficient connections to the UK, the EU and the rest of the world, are integral to sustaining Ireland’s economic growth and international competitiveness, therefore continued investment in our port and airport infrastructure is essential. It is also central to responding to the challenges arising from Brexit.

According to the CSO¹¹⁸, in the second quarter of 2018, just over 10 million passengers passed through the five main airports, a year on year increase of 7.2 per cent. In total, almost 72,000 flights were handled by Ireland’s five main airports during the same period. Dublin accounted for 83 per cent of all flights, and Cork and Shannon accounted for 7.6 per cent and 5.4 per cent respectively. Ireland’s main airports handled a total of 41,605 tonnes of freight in the first quarter of 2018, 93.7 per cent of which was international freight.

Given the open nature of the Irish economy, good international access (e.g. range of destinations, frequency, and cost) coupled with effective airport facilities and international connectivity, are critical in sustaining economic growth. Good air infrastructure is increasingly important as the profile of Irish exports continue to change. The continued rise in service exports in recent years means greater demand for air services to a diverse range of destinations. CSO¹¹⁹ statistics shows that total service exports increased by €14.7 billion from €126.3 billion in 2015 to €141 billion in 2016.

Maintaining access to the existing choice of competitively priced, frequent and direct services and developing new direct air links with existing and emerging growth markets in terms of exports and FDI is critical to support enterprise growth and improving Irish competitiveness. Infrastructure investment that provides adequate and efficient airport facilities and incentives to attract multiple airlines to locate in Ireland will increase choices and competition, which in turn will help to attract global companies and skills to Ireland. Furthermore, improving cargo and custom facilities to ensure effective and efficient freight services, to minimise delays in the delivery of outward and inward freight movement, is vital to support enterprise growth.

Rising passenger numbers for leisure, business and tourism purposes, together with the changing profile of Irish enterprises worldwide, means investment in Irish airports’ infrastructure is becoming more critical to companies. The Council welcomes the commitment in the NDP for further investment in Ireland’s airports. Under the NDP €4.8 billion

¹¹⁸ CSO: Aviation Statics 2018

¹¹⁹ International Trade in Service 2016 (latest so far)

is earmarked for the development and improvement of airport and ports. Major airport infrastructure investments under the NDP are as follows:

- Second parallel runway for Dublin Airport. Preliminary works on this project have begun with the runway scheduled to be delivered by 2021 at the cost of €320 million¹²⁰.
- New Visual Control tower at Dublin Airport, which will facilitate the tower control services once the second parallel runway is operational. The preliminary work on the €50 million project has commenced.

In addition, there are plans to support smaller regional airports through the Regional Airports Programme. In contrast to the commercially-funded investment in the main State-owned airports, this support is Exchequer-funded within the constraints of State Aid rules.

Recommendation: Prioritise continued investment in Dublin Airport to develop it as an international hub with greater long haul direct connectivity.

Responsibility: Dublin Airport Authority, Department of Transport, Tourism and Sport

Ports

Ireland's commercial seaports, and the services they provide, are critical for international trade, with a significant share of our international trade in goods moving by sea. For exporters and importers, the entire chain from their base to the customer/supplier is important for the effective movement of goods in an out of the country.

While the lack of publicly available comparable data limits the Council's ability to benchmark the comparative performance of Irish ports, Irish Maritime Development Office's (IMDO) statistics¹²¹ suggest that port traffic is growing strongly and consistently. Irish ports handled 53.3 million tonnes of goods in 2017 - goods forwarded from Irish ports amounted to 17.8 million tonnes, while 35.5 million tonnes of goods were received. Both increased by 5.2 per cent compared to 2016.

Ports' infrastructure in Ireland is not funded directly from public capital expenditure. The port companies, operating as private limited companies, fund their infrastructure through their own resources - private partners, financing or EU funding. However, the Government's port policy framework has a key role to play in ensuring that the private sector investment is timely and adequate and meets the current and future needs of Irish business. In order to facilitate a competitive and effective market for maritime transport services, one of the key features of National Ports Policy¹²², is the re-orientation of national policy focus on the designated Ports of National Significance – Tier 1 and Tier 2¹²³. The importance of the measures outlined in the National Port Policy has been acknowledged in the National Development Plan.

A rolling programme of major redevelopment projects is taking place at Tier 1 ports at present¹²⁴, Tier 1 ports are located within close proximity to Dublin, Cork and Limerick/Shannon respectively. This investment will improve international connectivity and increase capacity through the construction of new quay walls, associated port infrastructure, complemented by land transport investment (e.g. the N69 Foynes to Limerick Road, the N28 Cork-Ringaskiddy). Work has commenced in Dublin Port and is expected to be completed in 2022. The redevelopment will enable the port to accommodate larger sized vessels (both length and draft) and provide for increased capacity. In terms of Tier 2 ports, a strategic review is currently underway in relation to Rosslare Europort.

¹²⁰ Project Ireland 2040 | National Development Plan 2018-2027

¹²¹ Maritime Development Office: Quarterly Statistics

¹²² National Port Policy 2013: <http://www.dttas.ie/sites/default/files/node/add/content-publication/National%20Ports%20Policy%202013.PDF>

¹²³ Tier 1: Dublin, Cork and Shannon Foynes; Tier 2: Rosslare and Waterford

¹²⁴ Project Ireland 2040 | National Development Plan 2018-2027

The Council welcomes the ongoing development of Irish ports. CSO data show that the routes between Dublin and three UK ports (Holyhead, Liverpool and Milford Haven), were the busiest routes for inward movement of goods in 2017 and, the Dublin-Holyhead and Dublin-Liverpool routes were also the busiest routes in terms of goods forwarded. Enhancing our port infrastructure in light of Brexit, remains crucial for improving our ability to conduct trade and tourism activities and meet future needs.

Brexit underscores the importance of Ireland's ports given their role in supply chain logistics for Irish businesses. Currently, the UK is the destination for 55 per cent of all maritime goods exports and 86.1 per cent of roll on/roll-off freight traffic. The liquid bulk received from the UK accounts for 39.5 per cent of the total tonnage of goods received in 2016. Of the total amount of goods received at Irish ports in 2016, a third arrived from the UK¹²⁵. Some 80 per cent of Irish road freight that reaches mainland Europe passes through the UK¹²⁶. The IMDO's research¹²⁷ on the Implications of Brexit on the Use of the UK Landbridge found that circa 150,000 vehicles use the landbridge each year. Some of the key findings of the research are as follows:

- the volume of RoRo traffic using the Landbridge to transport goods to and from European ports is approximately 3 million tonnes (approximately 16 per cent of the RoRo traffic between Ireland and Britain)
- the average value of goods, in euro per tonne, is over three times higher for goods transported to/from the rest of the EU compared to goods transported to/from Britain
- In total, 83,852 freight units used landbridge routes with 89 per cent of this volume concentrated in the top ten users of the landbridge
- 80 per cent of landbridge traffic goes through Dublin Port
- 38 per cent of total Irish exports to EU continental ports ship via the landbridge.

The key recommendations of the research are:

- Government should, where feasible, facilitate the use of technology, international best practice and the deployment of additional resources to minimise the burden on industry in case of no deal
- Identify opportunities for funding from EU programmes to fund solutions to the problems that Brexit will pose for Ireland, particularly those related to increased peripherality and disruption to the North Sea - Mediterranean Corridor.

Ireland is reliant on access to the UK more than any other country in Europe. The cross-UK route allows Irish businesses to reach EU markets in a swift timeframe which is vital for transporting perishable goods. These favourable conditions may come to an end if a hard Brexit scenario is agreed. Lack of regulatory alignment and free movement of goods will significantly increase the demands placed on Irish ports in the future, especially their storage capacity. The IMDO's '*Port Capacity Study*' examines the current capacities, infrastructure, facilities and services that ports might need post Brexit. The Council considers the findings of this analysis will provide evidence for shaping future port policy post Brexit.

Recommendation: Monitor the performance of Irish ports in terms of cost competitiveness, quality and capacity in the context of Brexit and meeting the needs of the Irish exporters. Prioritise the recommendations of the UK Landbridge research and publish the findings of Port Capacity study.

Responsibility: Department of Transport, Tourism and Sport, Irish Maritime Development Office

¹²⁵ Maritime Development Office: Quarterly Statistics

¹²⁶ Freight Transport Association

¹²⁷ Implications of Brexit on the use of the UK Landbridge

Telecommunications

High quality telecommunication infrastructure is fundamental to capturing new opportunities for entrepreneurship and improving regional and sectoral economic growth. The access to high speed broadband is crucial for the growth of small and micro businesses, as it facilitates digitalisation, improves their online visibility and expands their export base, as highlighted by recent ESRI research¹²⁸. According to this research, the online presence was vital in the facilitation of export participation by Irish services firms with many selling products online.

Enhancing Ireland's international and national connectivity with adequate and competitively priced broadband service is also critically important to attract and sustain the current and future investments in ICT, digital media and other data intensive sectors. The Council acknowledges the substantial investment made by the private and public sector to date which has significantly improved broadband offering in recent years, especially in urban centres. Since the publication of the National Broadband Plan in 2012, the commercial telecommunications sector has invested over €2.75 billion on upgrading and modernising networks which supports the provision of high speed broadband and mobile telecommunications services. Significant additional commercial investment is expected over the next few years¹²⁹. Under the Capital Plan (Building on Recovery: Infrastructure and Capital Investment 2016-2021), the Government allocated €275 million for the initial five years of the network build-out. Access to connectivity continues to improve. In 2016 1.2 million (52%) of all premises had access to high speed broadband, this has increased to 1.6 million (71%) in 2018.

According to Comreg¹³⁰, average *fixed broadband speed* continues to increase. In Q2 2018 approximately 85.9 per cent of all fixed broadband subscriptions were equal to or greater than 10Mbps, up from 82.2 per cent in Q2 2017, a year on year increase of 3.7 per cent. Similarly, 74.6 per cent of all fixed broadband subscriptions were equal to or greater than 30Mbps, up from 68.7 per cent in Q2 2017.

The estimated fixed broadband household penetration rate was 67.9 per cent, the fixed broadband per capita penetration rate was 29.1 per cent and the broadband per capita penetration rate (including mobile broadband) was 35.1 per cent in Q2 2018. Ireland's household broadband penetration rate has increased by 21 percentage points since 2013 and was 88 per cent at the end of 2017. This was 3 per cent higher than the EU28 average (85 %).

In Q2 2018, the quarterly average residential fixed broadband price in Ireland was €41.35, 16.5 per cent more expensive than the average price for all of the benchmarked countries¹³¹. Business fixed broadband price was €42.56, 8.7 per cent more expensive than the average price for all of benchmarked countries. In terms of quarterly price comparison, Ireland was the fourth most expensive country among benchmarked countries, both in terms of residential fixed broadband price and business fixed broadband price.

The EU Digital Economy and Society Index (DESI) 2018 report, saw Ireland move up three places – to 6th from 9th – compared to 2017. This reflects Ireland's continued position as a European leader in the digital sphere. 2018 also saw improvements in Ireland's performance in the EU DESI across various categories including digital public services, use of internet, and advanced skills and development. However, DESI indicates that more than half of the population is lacking at least basic digital skills.

Complementing the commercial investment with continued Government investment through the National Broadband Plan intervention is essential in the delivery of a future-proofed network to support a high-quality affordable broadband service across all regions. While the Council acknowledges that the broadband and mobile telecoms services available in the State have improved in recent years, significant challenges in delivering high speed broadband services across rural areas (due to the relatively small and disperse population) remain.

¹²⁸ ESRI: SERVICES EXPORTS AND EXPORTERS OF SERVICES (Lawless and Studnicka, 2017)

¹²⁹ <https://www.dccae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/commercial-investment/Pages/Commercial-Investment.aspx>

¹³⁰ Quarterly Key Data Report: Data as of Q2 2018

¹³¹ Germany, Denmark, Spain, Netherlands and the United Kingdom

The National Broadband Plan State intervention network has the capacity to improve productivity nationally through opportunities arising on a regional basis. Key areas include remote working, cloud computing, business efficiencies and competitiveness.

It is estimated that, in Ireland, 44,000 businesses and 56,000 farms⁶ could potentially benefit regionally from better quality internet.

According to the CSO¹³² 11 per cent of households do not have access to the internet at home. The main reasons stated for not having a connection were that householders do not need internet (40%) and lack of skills (30%). 6 per cent state that broadband internet is not available in their area.

The Programme for a Partnership Government committed to establish a Mobile Phone and Broadband Taskforce to identify immediate solutions to broadband and mobile phone coverage deficits, and to investigate how better services could be provided to consumers prior to full build and rollout of the National Broadband Plan. The Taskforce is a cross-Governmental initiative, led by the Department of Communications, Climate Action and Environment (DCCA) and the Department of Rural and Community Development (DRCD). The Taskforce published its final Report in December 2016, addressing a wide range of issues impacting on the provision of broadband and mobile services. An Implementation Group was established in early 2017 to oversee timely implementation of the all of the actions contained in the Taskforce Report. The work of the Taskforce facilitates on-going engagement between key stakeholders, through groups such as the Roads Monitoring Committee and Stakeholder (User) Forum, as well as through events such as the National Stakeholder Forum. The Implementation Group was tasked with comprehensively reviewing progress made after twelve months and identifying appropriate new actions. In that regard, it published its Implementation Review 2017 in February 2018 including a 2018 Work Programme. Progress Reports are published on a quarterly basis.

Notwithstanding the interim measures, the Council believes that the full roll out of the National Broadband Plan is vital for empowering rural communities in Ireland. Through greater digital connectivity, the plan will support enterprise development, employment growth and the diversification of the rural economy. The Council is concerned that the complexity of the procurement process has delayed the roll out of broadband services in rural communities in Ireland.

Recommendation: Conclude the procurement process and expedite the roll out of the National Broadband Plan State Intervention.

Responsibility: Department of Communications, Climate Actions & Environment, Department of Rural and Community Development, Department of Housing, Planning and Local Government, ComReg

Energy

A reliable and competitively priced supply of energy is vital for business and its ability to compete successfully in international markets. Energy is an essential input for business and energy competitiveness is important for enterprise development, especially for energy intensive sectors as it directly affects the ability of enterprise to retain and grow output and employment. The primary challenge facing Ireland is ensuring security of energy supply and achieving environmental sustainability objectives. Consistent with European energy policy, the electricity and gas markets in

¹³² <https://www.cso.ie/en/releasesandpublications/er/isshh/informationssocietystatistics-households2018/>

Ireland are commercial, liberalised and competitive. The Government has no statutory function in the monitoring or setting of electricity prices, but it focusses on ensuring a competitive market and supports for energy efficiency.

The UK accounts for 50 per cent of our oil import and 40 per cent of gas imports. Given Ireland's dependence on energy imports from the UK, Brexit could potentially have a significant impact on Ireland's energy market.

Ireland has committed to significant decarbonisation by 2050¹³³. Ireland currently imports 60 per cent of its gas, 100 per cent of oil and is reliant on gas to generate approximately 46 per cent of its electricity¹³⁴. For long-term sustainability of energy needs, as well as to meet commitments under EU obligations, Ireland needs to reduce its dependence on foreign fossil fuels and continue developing indigenous renewable energy. Ireland faces a significant task in meeting the legally binding target as outlined in the EU's Renewable Energy Directive - 16 per cent of the country's energy requirements to be delivered from renewable sources¹³⁵. Ireland's current profile in terms of greenhouse gas emissions reflects partly the structure of the economy and partly the outcome of curtailed public and private investment capacity over the course of recent years. In 2014, the Government agreed a National Policy Position that commits to a long-term vision of a low-carbon transition based on an aggregate reduction in CO₂ emissions from electricity generation, the built environment and transport of at least 80 per cent by 2050, relative to 1990 levels.

The Energy White Paper, December 2015, commits to transforming Ireland's energy sector into a clean, low-carbon system by 2050. One of the key requirements identified in the White Paper is the need for appropriate energy infrastructure, including energy networks and interconnection with other countries' energy systems. It also supports policies that encourage diversification of energy supplies. The Council acknowledges and welcomes the current and planned measures under the Energy White Paper – including the Support Scheme for Renewable Heat and the Renewable Electricity Support Scheme¹³⁶ announced in July 2018. The Renewable Electricity Support Scheme will contribute to Ireland's 2020 renewable electricity targets. The scheme seeks to incentivise sufficient renewable electricity generation, to meet national and EU-wide renewable energy and decarbonisation targets, through a series of capacity auctions. The scheme should help diversify the renewable technology mix and increase community participation in renewable energy generation projects.

Recommendation: Ensure that the transition to renewable energy as outlined in the Energy White Paper does not only aim to achieve compliance with externally imposed targets, but also considers the competitiveness of Irish businesses.

Responsibility: Department of Communications, Climate Action and Environment

In terms of electricity, Ireland's peripheral location means it is isolated from the wider European electricity grid. Noting the large capital costs of interconnection, it is important that decisions about investment (underwritten by electricity consumers) in interconnectors be underpinned by clear and distinct public policy and legal and regulatory frameworks. Increasing electricity interconnection to continental Europe, as well as to the Britain, is essential to diversify Ireland's international electricity connections. This will significantly improve the security of supply and serve as a key enabler of economic growth and improve the competitiveness of Irish businesses, especially in light of Brexit. Ireland currently has electricity interconnection with Northern Ireland (as part of the Single Electricity Market) and with Great Britain.

¹³³ EPA Research: A Study of Energy Sector in Ireland

¹³⁴ SEAI

¹³⁵ Renewable Energy Directive; EU wide renewable energy target of at least 27 per cent by 2030.

¹³⁶ EPA Research: A Study of Energy Sector in Ireland

Further interconnections that are in the pipeline are as follows:

- The North–South Interconnector - the project is approved. Construction is expected to commence in 2019.¹³⁷
- Greenlink Interconnector (between Ireland and Wales) - The Commission for Regulation of Utilities (CRU) stated its intention to give an Initial Project Assessment decision in respect of Greenlink by September 2018. CRU’s assessment will determine if the project is likely to be in the public interest, which will lead to a Final Project Assessment decision during 2019
- The Celtic Interconnector is a proposed electrical link between Ireland and France. The project is at consultation stage and if built will be operational in 2025-2026¹³⁸.

Recommendation: Complete the construction of the North-South interconnector to improve security of energy supply.

Responsibility: Eirgrid

Recommendation: Publish the cost benefit analysis of the proposed Greenlink and Celtic interconnectors and how they benefit the final customers of electricity, including the impact on both gas and electricity.

Responsibility: Department of Communications, Climate Action and Environment

Recommendation: Progress the studies and engagements to conclude the consultation phase on building the Celtic interconnector. Secure funding for completing the project to ensure diversification of energy supply and improving environmental sustainability targets.

Responsibility: Eirgrid

The National Mitigation Plan (July 2017) provides a framework to guide the infrastructure investment decisions to help the transition to low carbon emissions and sets out provisions for implementation. However, achieving significant decarbonisation requires substantial investment which means, at least in the short to medium term, energy prices for businesses can increase as the cost of building, operating and maintaining the energy infrastructure network is ultimately borne by energy users and is reflected in customer’s electricity bills. Similarly, the Public Service Obligation (PSO) levy which is designed to support electricity generation plant to meet national policy objectives will contribute towards increasing renewable energy sources in electricity generation.

In relation to gas, Ireland’s gas is supplied largely from the Corrib gas field and the gas interconnectors from Great Britain. Corrib gas supply is depleting, from 60 per cent in 2017, this year it is expected to supply around 50 percent of gas. Ireland will once again become reliant on the interconnectors from Britain for the bulk of gas supply. Brexit is a consideration in this regard, and a number of gas infrastructure projects, which could enhance Ireland’s gas security, for example and LNG facility which would improve Ireland’s import route diversity, have been proposed.

Recommendation: Assess the feasibility of developing a liquid natural gas import terminal in the context of enhancing Ireland’s security of supply of gas.

Responsibility: Department of Communications, Climate Action and Environment

¹³⁷ <http://www.eirgridgroup.com/the-grid/projects/north-south/whats-happening-now/>

¹³⁸ Eirgrid

Digital Economy

The digital transformation witnessed in recent years provides opportunities to drive productivity and competitiveness and future proof the economy. It enhances business ability to gain access to new markets and implement new production processes. A number of factors underpin successful digital transformation, including the following:

- take up and diffusion of new technologies
- infrastructure development
- a fast-growing cohort of start-ups
- a skilled workforce, and
- supportive regulatory frameworks.

While Ireland remains relatively competitive across a broad range of digital economy competitiveness indicators, competition in this area is likely to intensify in the medium to long term.

According to the *Digital Economy and Society Index (DESI) 2018*, Ireland is the 6th most advanced digital economy in the EU, up from 9th place in 2017. Ireland scores top rankings in the indicators relating to STEM graduates, the use of online trading by SMEs and Open Data, however, more than 50 per cent of the adult population is lacking at least basic digital skills and 6 per cent of rural households still do not have access to even basic fixed broadband, which prevents taking advantage of the opportunities presented by the digital economy.

CSO data show that in 2017, 89 per cent of households have an internet connection, an increase of 17 percentage points since 2010. Of the 11 per cent of households with no internet access, 43 per cent reported that this was due to a lack of skills. In the Midlands region, 17 per cent of households with no internet access reported that internet access was not available in the area compared with 0 per cent in the Dublin region.

The number of purchases made online in 2017 has increased when compared with the same period in 2016. Online purchasing from national sellers still remains by far the most common with nearly three quarters (74%) of persons buying or ordering their goods or services from national sellers. However, this represents a fall of five percentage points on the corresponding figure for 2016 (79%). Conversely, over two thirds (67%) of persons who bought or ordered goods or services online in the previous twelve months used sellers from other EU countries, an increase of nine percentage points on the same period in 2016. Internet purchasing from sellers from the rest of the world also increased in 2017 – 30 per cent compared with 23 per cent of persons buying online in 2016. The CSO also reports that while in 2017 over half (58%) of large- and medium-sized enterprises (51%) had e-Commerce sales which accounted for 43 per cent and 24 per cent of total sales of these enterprises respectively, the majority of SMEs are still not engaging in e-commerce with just under 29 per cent of small enterprises recording e-Commerce sales which accounted for 22 per cent of all sales in this size class.

This data indicates the strong need for SMEs in the retail sector to fully embrace digitalisation and enhance their online presence. In an effort to improve the digital capability in the retail sector, the Department of Business, Enterprise and Innovation, in conjunction with Enterprise Ireland, launched a pilot retail online scheme to encourage Irish-owned SMEs in the retail sector to develop a more competitive online offer. The grant will support companies to develop a sophisticated and transactional online presence, including research, consultancy costs for strategy development and implementation, and training costs. To improve the competitiveness and productivity of companies based in regional locations, at least 50 per cent of the total number of grants awarded will be reserved for retail SMEs with their headquarters outside of county Dublin.

The EU vision for the Digital Single Market (DSM), set out in the DSM Strategy (2015), aims to ensure the free movement of persons, services and capital and that individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence. The goals of the Strategy are to ensure that Europe maintains its

position as a world leader in the digital economy and to help European companies to grow globally. A Mid-Term Review of the DSM Strategy was published in May 2017 and outlined areas where the EU needs to act further to ensure a fair, open and secure digital environment.

As outlined in the Mid-Term Review, the European Commission is committed to delivering a fully functional DSM and in April 2018 released a number of further legislative and non-legislative initiatives around two broad themes - platforms and data. Some of the most relevant, from a national competitiveness perspective, include:

- A European approach on artificial intelligence (AI)
- Measures to introduce a common data space in the EU, and
- A Directive on the re-use of public sector information.

The commitment to the digital transformation of the EU is also reflected in the funding priorities of the draft Multiannual Financial Framework for the period 2021-2027. Under the Digital Europe Programme, part of the "Single Market, Innovation and Digital" chapter of the EU's long-term budget proposal, it is proposed to invest €9.2 billion in a blended financing approach which will leverage significant private investment to shape Europe's digital transformation. The programme, if approved, will focus on reinforcing Europe's capacities in high performance computing, artificial intelligence, cybersecurity and advanced digital skills and ensuring their wide use across the economy and society.

Recognising the role of digitalisation as a cornerstone policy of sustainable economic growth means that achieving the goals of the DSM remains of strategic importance to Ireland. By completing the DSM, particularly removing unnecessary barriers to doing business digitally and across borders, Irish companies and consumers could enjoy significant benefits. However, it is crucial that Ireland is well positioned to reap the rewards of digitalisation. In this regard, while Ireland is a strong supporter of the DSM agenda and has engaged in delivering a number of initiatives to facilitate digitalisation in a domestic and European context, we currently have no overarching long-term vision for how Ireland can best benefit from digital transformation by providing a well-coordinated integrated perspective of Government, business and society. A number of countries, including Denmark, UK, Netherlands, Finland, Israel, Sweden and Singapore have already produced high-level digital strategies driving their digital agenda.

Ireland's new National Digital Strategy is being developed by the Department of the Taoiseach, Department of Business, Enterprise and Innovation, Department of Communications, Climate Action and Environment, and the Office of the Chief Information Officer in the Department of Public Expenditure and Reform. A Digital Strategy Interdepartmental Group, including representatives from all Departments, has been established to ensure a comprehensive whole-of-Government perspective on the progression of a National Digital Strategy.

The Strategy will provide the framework for realising the potential of digitalisation and help transform Ireland into a leading digital economy. From a competitiveness perspective, such a strategy should have a specific focus on enhancing enterprise digital competitiveness. It is important that the future Strategy is regularly reviewed and evaluated and sets ambitious targets to ensure it delivers on its goals.

The Council supports the process of initial consultations with stakeholders to garner an overview of the main issues, and the intention to hold wider stakeholder engagement and communication in the coming months to inform the detailed development of the Strategy.

The European Commission's communication on Artificial Intelligence (AI) committed the Commission along with Member States, by the end of 2018, to developing a coordinated AI plan. It is to maximise the impact of investments at EU and national levels, exchange practice on the best way for governments to prepare Europeans for the AI transformation and address legal and ethical considerations. In parallel, the Commission will systematically monitor AI-related developments in Member States, AI uptake and its impact on labour markets as well as AI capabilities in order to inform the co-ordinated effort. The Plan will be informed by groups representing Member States, industry

and academia. Despite the rapid pace at which AI is progressing at EU level and the pervasiveness of this disruptive technology across the economy, Ireland has not yet adopted a formal strategy for AI.

Recommendation: Map the Artificial Intelligence ecosystem in Ireland and devise a collective targeted National Artificial Intelligence strategy.

Responsibility: Government, State Agencies

Several of the Digital Single Market initiatives proposed by the European Commission have implications that fall within the remit of a number of Government Departments. To ensure a whole-of-government approach in forming an integrated national position to respond to these initiatives, strengthen the relationship with other like-minded countries and participate effectively in the EU legislative process, an Interdepartmental Committee, comprising representatives from several Government Departments, has been set up. The Department of Business, Enterprise and Innovation provides secretariat for the Committee and leads on the digital transformation of business with a focus on SMEs within the Committee.

The Council endorses the integrated approach to delivering the DSM agenda. Given the wide scope of the DSM, particularly the importance of research and innovation for facilitating digitalisation, and the emphasis on the digital transformation of SMEs, it is essential to extend the membership of the group to representatives of other Departments and intensify the engagement with enterprise. This enterprise engagement should include both frontier companies who successfully avail of the benefits of digitalisation, and small business who face a number of challenges to take advantage of digitalisation.

It is acknowledged that the re-use of open data can contribute toward economic growth, the development of AI and overcoming societal challenges. Conversely, charges, well above what are needed to cover reproduction and dissemination costs for the re-use of public sector data, constitute a barrier for SMEs. For that reason, the European Commission adopted a proposal for a revision of the Public Sector Information Directive in April 2018. The proposal aims to overcome the barriers that still prevent the full re-use of public sector information.

The National Competitiveness Council welcomes the proposal which has the potential to contribute towards increasing the demand for public sector data, which translates into more innovation, business growth and, ultimately, higher tax revenues.

As part of the Irish Government's agenda to create a modern digital economy, and in line with its eGovernment Strategy 2017-2020, the Office of the Government Chief Information Officer is developing a Public Service Data Strategy. The Strategy aims to implement a more consistent and uniform approach to data across Government.

The Council supports the efforts to create a framework for the optimisation of data management within Government. By facilitating the reuse of data in an efficient, secure and consistent manner, the Strategy will contribute towards providing a joined-up digital service, decreasing administrative burden on business by removing data duplication across the public service and encouraging more data driven policy making and implementation tracking.

Complementing the Strategy, the purpose of the Data Sharing and Governance Bill is to provide a legal basis to enable public bodies - where they already have a legal basis to collect data from the citizen or business, to collect that data from another Public Service Body. This reinforces the once-only principle of collecting data once from citizens and businesses.

Recommendation: Expedite the preparation of an ambitious, future-proofed and target-based National Digital Strategy. Prioritise high level actions to address gaps in delivering the benefits of digitalisation.

Responsibility: Department of the Taoiseach, Department of Business, Enterprise and Innovation, Department of Communications, Climate Action and Environment, Office of the Chief Information Officer, Department of Public Expenditure and Reform

Recommendation: Expedite the enactment of the Data Sharing and Governance Bill. Publish a Public Service Data Strategy.

Responsibility: The Office of the Chief Information Officer, Department of Public Expenditure and Reform, Department of Public Expenditure and Reform

Recommendation: Expand the membership of the Interdepartmental Committee on the Digital Single Market to include relevant departments and agencies to ensure a whole-of-Government approach to the agenda. Ensure that DSM initiatives are in line with Ireland’s strategic interests and its enterprise community. Intensify engagement with enterprise to better understand the challenges in delivering the DSM.

Progress the delivery of the Digital Single Market Strategy to advance Ireland’s position as a leading global digital economy. Ensure that Government Departments are adequately resourced to implement the DSM.

Responsibility: Government, Interdepartmental Committee on Digital Single Market

National Competitiveness Council
c/o Department of Business, Enterprise and
Innovation
23 Kildare Street,
Dublin 2, D02 TD30
Tel: 01 6312121
Email: info@competitiveness.ie
Web: www.competitiveness.ie

