



Rialtas na hÉireann
Government of Ireland

RESILIENT

INNOVATIVE

GLOBALLY CONNECTED

Enterprise 2025 *Renewed*

Building resilience in the face
of global challenges

Department of Business, Enterprise and Innovation

entrepreneurship
BUSINESS CLUSTERING
PLACE-MAKING enterprises
start-ups TECHNOLOGIES
EXPORT diversify
growth employment
JOBS COLLABORATION potential
citizens horizon-scanning quality jobs
investment CONNECTED
OPPORTUNITY productivity
innovate
technologies RESILIENCE
economic growth
SCIENTIFIC-EXCELLENCE agility
innovation RD&I
talent environmental-sustainability
collaboration sustainability
differentiate education SCALE
location-of-choice skills
technologies regions
STANDARDS-OF-LIVING competitive
internationally

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Minister's foreword

There is no doubt that our economy has performed better than we had thought possible when Enterprise 2025 was published in November 2015. The enterprise development agencies have delivered in terms of supporting job creation throughout Ireland, notwithstanding the challenges we are facing.

Although it is a point that has been made before, this is no time for complacency. The current winds of change in relation to Brexit, International Tax developments, US policies and technological advances represent a culmination of events that will have a direct impact on Ireland's prospects. Analysis that my Department has recently published on the impact of Brexit alone leaves us with no doubt that Ireland's future growth trajectory will be less favourable than it would have been without Brexit. We cannot predict what the future holds as other developments unfold.

We can, however, focus our policy efforts on building resilience in enterprise – in remaining true to our export-led growth strategy, underpinned by innovation and talent. Businesses in Ireland, our entrepreneurs and our workers are the drivers of Ireland's future prosperity. Our enterprise policies need to evolve and adapt to meet changing circumstances, to capture opportunities and to support business start-up, growth and investment.

That is why I want to ensure that Enterprise 2025 remains robust. This Review reinforces the need for Government to place a greater emphasis on investments in innovation, in developing talent and in creating attractive places throughout Ireland so that we can fully realise the potential of our regions. I also want to place a greater emphasis on starting and growing innovative Irish enterprises that will trade successfully in overseas markets. Many of these are SMEs that create employment right across the country. Foreign direct investment will continue to play a key role in Ireland's future with greater levels of collaboration and clustering so that we fully realise the benefits of our distinctive mix of global players and technology-rich Irish enterprises.

I am very ambitious for our enterprises. I believe that we can have at least 2.3 million people working by 2020. I am confident that we can achieve our objectives for regional development.

I am convinced that by taking concerted action now, and through the work of the agencies, we can diversify markets and reduce vulnerabilities that currently exist.

The Government is strongly committed to this work, and the strength is in our mutually reinforcing policies that support innovation, enterprise growth and job creation throughout Ireland. Examples include Innovation 2020, Ireland Connected, Project Ireland 2040 and Global Footprint 2025.

Yes, there are challenges – but they are not insurmountable. I will continue to meet and engage with companies, to understand their concerns, and to respond.

Together we will realise the vision for Ireland as the best place to succeed in business: resilient – innovative and globally connected.

A handwritten signature in black ink, which appears to read 'Heather Humphreys'.

Heather Humphreys, T.D.

Minister for Business, Enterprise and Innovation

March 2018

Executive Summary

A changed global environment

Although *Enterprise 2025*, Ireland's national enterprise strategy, was published only in November 2015 much has changed in the world since then. Our strategy has been renewed to ensure that it remains robust in response to a number of recent significant global changes, specifically:

- **Brexit:** the UK decision to leave the EU from March 2019 could entail changes to trading arrangements with our nearest neighbour, depending on the outcome of the ongoing negotiations between the EU and the UK;
- **United States:** potentially significant policy shifts by the US on trade and investment are of concern, not just for Ireland as an open economy, but also for global trade more generally;
- **international tax developments:** more broadly, including the OECD BEPS (Base Erosion and Profit Shifting) US tax reform, and EU proposals on CCCTB (Common, Consolidated Corporate Tax Base) and digital tax, create a more uncertain environment for mobile investment; and
- **disruptive technologies:** there is considerable disruption and opportunity presented due to the speed of adoption of technological advances that impact on global business models, sectors and activities, skills and ways of working.

We cannot predict the future, but we can put policies in place to prepare for the unknown and to position Ireland for growth over the longer term.

While the framework and areas for action in *Enterprise 2025* remain valid, *we intend to make changes to our policy emphasis, refocus on building resilience and accelerate the speed at which we implement change.*

Performance has been strong

Considerable progress has been made in achieving the objectives set out in *Enterprise 2025*. There are 141,000¹ more people now at work and at over 2.2 million² people working, we are approaching full employment. All sectors of the economy and all regions are experiencing growth. In agency supported enterprises, with 64,700 net jobs already created over the period 2014-2017, we have achieved 85 percent of our 2020 ambition. Exports continue to grow, reaching €260 billion in 2016³. Indigenous exports have reached €21.6 billion⁴ and are well on track to achieve the ambition set out in *Enterprise 2025*. There is solid progress in implementation across the majority of strategic actions.

Furthermore, the ongoing improvements in our fiscal position and the likely achievement of a balanced budget in 2018 help to restore confidence and provide a solid underpinning for more sustainable enterprise and employment growth.

1 <http://www.cso.ie/en/releasesandpublications/er/lfs/labourforcesurveyquarter32017/> Over the period Q2 2015-Q3 2017 seasonally adjusted. Note all national employment data draws from the new Labour Force Survey published by CSO in January 2018

2 Labour Force Survey (LFS) Q3 2017, CSO

3 Merchandise: CSO Statbank/BOP Annual Series/BPA19. Services: CSO Statbank/External Trade/TSA01 [excludes contract manufacturing]

4 2016, latest data available, ABSEI, DBEI, Enterprise Ireland client portfolio

.... But we cannot be complacent

The economy is in a strong position and growth prospects for 2018 are positive. Nevertheless our performance is not achieving our ambition in a small number of areas that are fundamental to Ireland's economic success in today's substantially changed external context.

In particular, investment in training and skills development by enterprises and investment in Research, Development and Innovation (RD&I) are lower than desired⁵. In addition, focused investments in infrastructures, and particularly broadband and housing, are crucial to redress constraints on growth potential and are a key focus of the recently launched National Development Plan 2018-2027.

Although the impact of external factors is not reflected in our economic performance to date, we know that what is happening outside of Ireland *will* affect our growth potential over the longer term⁶. Our policy responses now can help to ensure that any impact is lessened.

5 In-work training for agency supported enterprises was €618 per head (2015) against a target of €1,100 with investment in skills over the past two years slower than required to meet the ambition for 2020. GERD as a percentage of GNP is 1.44 percent (2016) and our national target is 2.5 percent of GNP by 2020

6 In the absence of policy responses, ESRI estimates that (depending on the Brexit scenario considered) the level of Irish output would be between 2.3 and 3.8 percent below what it otherwise would have been over the longer term. Modelling the Medium to Long Term Potential Macroeconomic Impact of Brexit on Ireland, Working Paper NO 548, November 2016, ESRI

Our ambition

We intend to remain ambitious over the period to 2025.

Now is the time to remain true to our export-led growth policies.

Our focus is on:

- > **sustaining** what we have in the immediate term;
- > **transforming** our enterprise base for longer-term resilience; and
- > **building on our strengths** to be successful in international trade while managing potential vulnerabilities.

Our vision

Ireland

The best place to succeed in business

delivering

- > **sustainable employment** *and*
- > **higher standards of living for all**



Resilient – Innovative – Globally Connected

EMPLOYMENT
to reach at least

↑ **2.3m**

Increase
IRISH OWNED
COMPANIES
of scale by

↑ **30%**
(2013-2020)

↑ **80%**

of Indigenous Export
Growth to **REACH**
MARKETS OUTSIDE UK

Increase **INDIGENOUS**
EXPORTS to reach

↑ **€26bn**

with greater
market diversification

Irish economy
expenditure by
AGENCY SUPPORTED
COMPANIES to reach

↑ **€29bn**

↑ **50%**

INCREASE IN FDI
INVESTMENTS from
markets outside
the US

UNEMPLOYMENT to

↓ **5.5%**

all regions <1%
of national average

Rank in
TOP 5

MOST COMPETITIVE
SMALL COUNTRIES
IN THE WORLD

Ireland as a
Global
Innovation
Leader

R&D intensity
2.5% GNP

Notwithstanding the uncertainties we continue to face, we will remain ambitious.

We want our policies to deliver **quality jobs** – jobs that are sustainable over the longer term - skills-based jobs that can support productivity-led wage increases.

We want our policies to **drive productivity growth** that will deliver **higher standards of living and quality of life for all** and ensure that *all* of our citizens and our regions can benefit from economic growth.

We will focus efforts to deliver on renewed targets to 2020. The steps we take now aim to embed resilience and will help ensure that Ireland's economy remains strong over the longer term, to 2025 and beyond.

Our ambition is to remain on the path to long term sustainable growth, by achieving the following by 2020:

- at least 2.3 million people in employment;
- an unemployment rate of no more than 5.5 percent while improving participation rates;
- realise the potential of our regions so that unemployment is within 1 percentage point of the national average;
- a 6-8 percent growth rate in indigenous exports to reach €26 billion, with greater geographic and market diversification;
- Ireland as a Global Innovation Leader with 2.5 percent of Gross National Product (GNP) invested in Research, Development and Innovation;
- expenditure in the Irish economy of €29 billion by agency supported enterprises;
- rank in the top 5 most competitive small countries in the world, with a business environment that supports entrepreneurship, scaling of Irish owned enterprises and is attractive for the next wave of foreign direct investment (FDI).

Our approach

Our enterprise policies are delivering. We still face a number of unknowns as external factors evolve. There are potential vulnerabilities within our existing enterprise structure. There will always be job churn. We need to ensure that our policies respond as sectors, activities and occupations evolve so that we remain at the forefront for business investment and support the creation of quality jobs. Within the broader scope for action, some areas have taken on greater import in today's challenging and changing external environment.

In terms of priorities, we will:

- increase the *emphasis on developing our Irish owned enterprises* – embedding resilience in our enterprise base, enhancing productivity and delivering quality jobs – including supporting companies to navigate their way through Brexit;
- harness the distinctive characteristics of our *foreign and Irish owned enterprise mix* through *collaboration and clustering*;
- *place a spotlight on innovation and talent* and leverage our strengths in disruptive technologies so that we achieve our ambition with more enterprises developing new products, services and solutions to compete effectively against international competition;

- *realise the full potential of our regions through investments in place-making - developing places that are attractive for business investment and for people to live and work*⁷;
- develop our *international relationships* and strengthen economic diplomacy to *raise Ireland's visibility, protect Ireland's reputation and provide opportunities for our enterprises* supported by the Global Footprint 2025 initiative.

Delivering quality jobs

Our policies are focused not just on numerical targets in terms of job creation, but also on ensuring the jobs created are quality, high productivity jobs in positive work environments which reward and develop employees.

Our policies will take into account the multi-dimensional aspects that define quality, including: ensuring opportunities for advancement through workplace learning and development; ensuring that people are educated and trained to meet the needs of enterprise availing of the range tertiary, apprenticeship and training options; recognising the opportunities presented by entrepreneurship as an alternative career path; and ensuring a system that facilitates flexibility without exploitation.

We are facing challenging times and cannot afford to assume that 'full employment' means that enterprise policy (and the agencies) have done their job.

The world of work is changing – the world of business investment is changing – the way of doing business globally is changing. Today's jobs are evolving as technologies in the work place are adopted – some of today's jobs will be replaced by new ones while others will be redefined.

We need to prepare and continuously adapt if we are to take advantage of emerging opportunities and to increase the productive capacity of our workforce.

⁷ Project Ireland 2040, 2018 and the National Development Plan 2018-2027, PER, are key instruments to realise the potential of our regions. All Government Departments align their capital expenditure to realise the ambition set out in Project Ireland 2040 and to achieve the desired outcomes over the coming decade

Strategic actions

While some areas have taken on greater import in today's challenging and changing external environment, we continue to deliver on a range of complementary and mutually reinforcing actions that build on our strengths while deepening resilience. A whole of government approach is needed to support Ireland's whole of enterprise strategy, *Enterprise 2025*. The suite of actions require commitment by Government Departments, agencies, the Embassy network and others to deliver in a timely and coordinated way.

Preparing for a post Brexit reality

As an immediate priority, we will support Brexit impacted enterprises and sectors, sustaining employment and economic activity to the extent possible and taking into account the differing implications arising from Brexit.

Support our enterprises to navigate their way through Brexit impacts

- Raise awareness tailored to sectoral needs – increase level of preparedness within enterprises.
- Support companies to develop and execute sustainability and growth plans.
- Deliver funding options for working capital for companies facing difficulties and adapting to the challenges of Brexit.
- Support companies to diversify export markets and to sustain UK exports, reinforced by increased resources in Ireland's Global Footprint 2025 initiative⁸.
- Continue to support the EU's ambitious programme of negotiating new FTA's giving Irish enterprises expanded market access and a predictable trading environment in third countries across the globe.

Increasing the emphasis on our Irish owned enterprises and deepening resilience in our enterprise base

Our ambition is to deliver a step change in the performance of Irish owned enterprises, through a programme of investment, innovation and capability development. We will continue to enhance the business environment so that it is conducive to entrepreneurship, start-up and growth of Irish owned enterprises. We will continue to attract FDI that delivers economic impact, diversify source markets for such investments and drive increased collaborations in RD&I.

Support our Irish owned enterprises as a key pillar for growth

- Support capability building within firms – financial management & strategic planning, lean practices, competitiveness initiatives.
- Place a spotlight on innovation as the primary source of differentiation for enterprises facing international competition – whether exporting or trading on the local market.
- Implement Toward Responsible Business tapping into win-win benefits of Corporate Social Responsibility (CSR).
- Apply behavioural insights to programme design and promotion to increase take-up and effectiveness of the suite of supports available.

⁸ The Global Footprint 2025 initiative has not been approved by Cabinet at time of writing, and metrics included in this Review do not take account of its potential impact

Strengthen aspects of the business environment to support our SMEs

- Strengthen the competitiveness of Ireland's tax regime to support start-ups, small and medium enterprises (SMEs) scaling, internationalisation and business investment where appropriate.
- Continue to facilitate the creation of a comprehensive and competitive funding environment to support entrepreneurship and our enterprises' ambitions for growth.

Support the transformation of our foreign owned entities and diversify source markets for FDI

While placing an emphasis on Irish owned enterprises, we will take action to deepen the embeddedness of our foreign owned multinationals and reduce vulnerabilities.

- Drive a step change in the number of foreign owned entities engaging in RD&I.
- Drive more and deeper collaborations between enterprises and research & technology centres.
- Accelerate efforts to diversify source markets for FDI.

Building on our existing strengths and seeking out new opportunities: clustering, collaboration and connections

Ireland will build on sectoral comparative strengths, while seeking out new opportunities for growth. An intensified focus on collaboration, connections and clustering aims to deepen resilience and to stimulate sustainable growth throughout the regions.

Take a portfolio approach to sectoral development - deepening resilience

- Embed a more systematic and comprehensive approach to horizon scanning to harness in-market and sectoral knowledge to facilitate the identification of emerging opportunities or disruptive trends.
- Monitor performance and impact of interventions at sectoral level informed by Department of Finance and National Competitiveness Council productivity analysis.
- Establish a small number of Top Teams to drive sectoral development - based on opportunity and/or vulnerability to prevailing global trends, with clear terms of reference, objectives, monitoring and sun-set clause.

Capture the benefits of Ireland's distinctive enterprise mix through clustering, collaboration and connections

- Roll out the second phase of the Regional Enterprise Development Fund (REDF) to harness regional strengths and stimulate collaboration to achieve greater economic impact.
- Evaluate the REDF 2017/2018 funded projects, accepting that not all might achieve their stated ambition and that the learnings will serve to strengthen future approaches.
- Intensify the implementation of the Global Sourcing Initiative to increase linkages between Irish and foreign owned enterprises in the context of Brexit, disruptions to existing supply chains and potential for import substitution.
- Establish a €500 million challenge based disruptive technologies innovation fund to stimulate development and deployment of disruptive innovative technologies and applications, on a commercial basis, targeted at tackling national and global challenges.

- Consider alternative options to stimulate clustering activities of scale and international visibility, that build on existing initiatives, harness diversity in sectors and foreign and Irish owned enterprises, and leverage existing and/or underutilised regional assets to deliver economic impact throughout Ireland.

Placing a spotlight on innovation, talent and disruptive technologies

Ireland as an innovation economy

Innovation is fundamental to achieving Ireland's economic success over the coming decade. We need Ireland to be positioned as a Global Innovation Leader if we are to fully embed resilience and deliver sustainable growth. We have set out actions (above) to stimulate greater innovation by enterprises. Government has a key role to play in driving our national innovation system and enabling the environment for innovation, creativity and entrepreneurial discovery.

- Publish a refresh of research prioritisation to ensure our research and innovation system is aligned to our enterprise potential and objectives.
- Take the steps necessary to meet EU and national objectives for RD&I of 2.5 percent of GNP and ensure that the majority of our competitively awarded investments are targeted toward priority areas.
- Promote relevant RD&I initiatives to increase number of R&D active enterprises by one third overall over the period of *Enterprise 2025*, including a doubling of large scale enterprises.
- Support investment and commercialisation of technologies that drive improvements in energy efficiencies and help deliver on Ireland's sustainability objectives.
- Position Ireland to the forefront of sector specific standards to stimulate innovation, certainty and international reputation, as well as to manage potential consequences arising from Brexit.
- Optimise Ireland's participation in the EU's Research and Innovation Framework Programmes.

Invest in our people so that Ireland is internationally renowned for its talent and entrepreneurial culture

Ireland is already known for its highly skilled workforce. The pace of technological change and potential implications for the workplace means that we need to continuously reskill and upskill – delivering the skills, competences and abilities for the 21st Century where collaboration, problem solving and creativity is prized.

- Address the likely increased demand for new skills post-Brexit including in customs, logistics and risk management.
- Engage with enterprise to deliver impactful initiatives to meet the changing needs of business, including those driven by technological advances, through a reinforced National Training Fund.
- Promote alternative education and training options to meet the needs of enterprise and individuals' career choices including through apprenticeship programmes.

- Improve participation rates in the labour force through various initiatives targeted at unemployed, youth, females, older people and people with disabilities, informed by analysis.
- Review the economic migration policies underpinning the current employment permits system to ensure it is fully supportive of Ireland's emerging labour market.
- Promote Key Employee Engagement Programme (KEEP) to SMEs as an incentive to attract and retain key talent that will drive business growth.
- Implement the Action Plan for Housing to increase supply of housing for a mobile workforce in areas of high demand.

Position Ireland to the forefront in disruptive technologies – embedding innovation, raising international visibility and driving productivity growth

Ireland has a strong track record in information and communications technologies and boasts a number of leading global players who have established here, as well as a number of technology-rich Irish owned enterprises. We aim to remain at the forefront in disruptive technologies.

- Develop a clear vision and strategy for Ireland's digital economy and drive the coordinated implementation of cross Government action across all relevant elements at the international, national and enterprise levels.

Realising the full potential of our regions

Support regions to realise their potential with a focus on place-making and taking account of Brexit

Our enterprise policy aims to deliver to all of our citizens – to create employment opportunities throughout the regions. Our policies will embrace a top down and bottom up approach that ensures we realise the potential of our regions and support enterprises to start and grow, aligned with the objectives of Project Ireland 2040, Ireland's National Planning Framework (NPF) and National Development Plan 2018-2027.

- Refresh and Brexit-proof Regional Action Plans for Jobs prioritising region specific collaborative projects, including in rural areas, driven by enterprise champions and public sector partners.
- Implement Spotlight on Skills, a regional SME skills analysis programme to help SMEs identify their skills needs.
- Deliver the RSEs by end 2018 including Metro Area Strategic Plans of the development of attractive locations for business to invest and for people to live and work in and realise the potential for economic growth throughout Ireland.
- Give effect to Project Ireland 2040 and RSEs through effective governance and coordinated implementation.

Although clustering activities are not constrained by regional boundaries, the actions set out above in relation to clustering can deliver to strengthened regional economic growth by harnessing the energy of local champions, building on existing strengths and leveraging underutilised assets.

Strengthening international relationships

Strengthen and develop international partnerships and strengthen economic diplomacy in a changed external environment

The global environment is changing significantly. Ireland has the ability to further develop its international partnerships and to raise Ireland's visibility in markets where we are less well known.

- Double the impact of overseas presence through implementation of Ireland's Global Footprint 2025.
- Strengthen existing relationships and forge new partnerships with the EU Member States and institutions, especially with those Member States whose interests are closely aligned with Ireland's.
- Intensify public diplomacy in the US and throughout the world to promote Ireland's offering and protect its reputation.
- Develop political and high-level links in high growth and emerging markets, aligned with relevant strategies, to secure enhanced market access and create opportunities for our Irish owned enterprises.
- Increase engagement and improve connections with our diaspora.
- Deliver on our strategic communications strategy to substantially raise Ireland's visibility throughout the world, tailored to different audiences while ensuring clarity and consistency in our messaging.

In conclusion

Ireland has navigated challenges before. This did not happen by chance. Through focused, aligned and concerted effort across Government, we will continue to support our entrepreneurs and enterprises to adapt, to capture opportunities and to create jobs for our citizens.

Enterprise 2025 – refocusing on resilience

Background

Although *Enterprise 2025* was published in November 2015, much has changed in the world since then. Our strategy has been renewed to ensure that it remains robust in response to a number of recent significant global changes⁹. While external factors can cause considerable disruption to Ireland's economic model, we also consider potential internal vulnerabilities.

Our enterprise strategy is set within the context of Ireland's Economic and Fiscal Outlook published by the Department of Finance which states that *'the Government will balance the books next year as well as maintain the debt ratio on a downward trajectory'* and *'a key policy priority is to re-build our safety buffers so that the economy can withstand any deterioration in the external environment'*¹⁰.

While the framework and areas for action in *Enterprise 2025* remain valid *we intend to make changes to our policy emphasis, to refocus on building resilience and to accelerate the speed at which we implement change*¹¹.

A rapidly changing global environment

Developments since the publication of *Enterprise 2025*, involving our closest trading and investment partners, have the potential to cause significant disruption to global supply chains and to Ireland's economic prospects. We cannot definitively predict the outcome of the winds of change we face, although expert commentary suggests that there are greater downsides than upside risks¹². The review has been undertaken in the context of:

- **Brexit:** the UK decision to leave the EU from March 2019 may entail changes to trading arrangements with our nearest neighbour, depending on the outcome of the ongoing negotiations between the EU and the UK. The scale of these changes, which will impact on different sectors (and firms within sectors) in different ways, will depend on the nature of the future relationship between the EU and the UK;
- in the **United States:** potentially significant policy shifts on trade and investment are of concern, not just for Ireland as an open economy, but also for global trade more generally. The new context for global policy discussion around trade, investment and global finance mean that we are faced with unprecedented complexity and uncertainty. Given our strong and long standing ties with the US for FDI, we need to remain attuned to developments and engage closely with companies based here to achieve the best possible outcomes;

9 See Appendix I for detail and process

10 Budget 2018, Economic and Fiscal Outlook (incorporating the Department of Finance's Autumn Forecasts), October 2017, Government of Ireland

11 A number of actions set out in 2015 remain pertinent and are not reflected in the body of this Report. These include investment in physical infrastructures; (As a component of Project Ireland 2040, The National Development Plan is aligned with the National Planning Framework and sets out priorities over the coming decade); cost competitiveness; strengthening data collection; strengthening competition; regulatory environment; standards and employment regulation/legislation

12 For example, in the absence of policy responses, ESRI estimates that (depending on the Brexit scenario considered) the level of Irish output ranges between 2.3 and 3.8 percent below what it otherwise would have been over a horizon of ten years. Modelling the Medium to Long Term Potential Macroeconomic Impact of Brexit on Ireland, Working Paper NO 548, November 2016, ESRI. Similarly, analysis undertaken on behalf of DBEI by Copenhagen Economics anticipates an impact on growth levels of between 2.8 percent and 7 percent less than would otherwise have been by 2030, depending on the scenario, Ireland and the Impacts of Brexit: Strategic Implications for Ireland arising from Changing EU-UK Trading Relations, Copenhagen Economics, (commissioned by DBEI) 2018

- **international tax developments:** including the OECD Base Erosion and Profit Shifting (BEPS) process and EU proposals on a Common, Consolidated Corporate Tax Base (CCCTB) and digital tax, create a more uncertain environment for mobile investment. While Ireland's transparent and certain corporation tax regime is a key element of our enterprise policy, we need to continue to invest in those areas that make us a compelling location from which to do business;
- the speed of adoption of **Technological advances** is seeing the emergence of new global business models, products, markets, sectors and activities; as well as disrupting ways of working and impacting on skills needs. The pace of technological advances puts increased pressure on accelerating the Digital Single Market (DSM). There are implications for the regulatory frameworks needed for a data driven economy and society.

Furthermore, economies now need to plan for a more **sustainable future in the context of climate change** and shifting demographics. The imperative for sustainability is driving behavioural change, technology development and policy as world economies seek to transition to low carbon, bio and circular economies. Ireland faces significant challenges achieving national and international binding targets, mitigating our emissions and adapting to the effects of a changing climate. Enterprise (and enterprise policy) has a role to play to develop and embrace new technologies, products and services that increase efficiencies, reduce waste and deliver a higher quality of life.

We need now to place an emphasis on strategic actions that will embed resilience and shape an Ireland of the future that is prepared - an Ireland that can anticipate - an Ireland that can respond to external shocks.

Solid performance ...but there are concerns

Ireland's recovery has been at a greater pace than was anticipated only a few years ago. Decisive policy action has put the Irish public finances on a more sustainable footing. The medium term budgetary objective of a balanced budget is within sight and our debt-to-GDP ratio continues to decline¹³. The ongoing improvements in our fiscal position help to restore confidence and provide a solid underpinning for more sustainable enterprise and employment growth. Our *Economic and Fiscal Outlook* places a key policy priority on ensuring a sustainable evolution of costs, continuing to support productivity growth and ensuring steady progress in reducing indebtedness.

Since the publication of *Enterprise 2025* in November 2015, solid progress has been made on achieving the ambition set out for enterprise growth. Employment growth is evident across all sectors and all regions and there are 141,000 more people at work¹⁴.

13 Budget 2018, Economic and Fiscal Outlook (incorporating the Department of Finance's Autumn Forecasts), October 2017, Government of Ireland. Our Debt to GDP ratio is projected at 70.1 percent at the end of 2017 – however, the recent evolution of the debt-to-GDP ratio overstates the improvement in public indebtedness. So, while declining, public indebtedness remains high

14 <http://www.cso.ie/en/releasesandpublications/er/lfs/labourforcesurveyquarter32017/> Over the period Q2 2015-Q3 2017 seasonally adjusted

With 2.2 million people in employment¹⁵, the national unemployment rate now stands at 6.1 percent¹⁶. Our exports have grown to €260 billion in 2016¹⁷ and our indigenous exports are on track to achieve €26 billion by end 2020. As a small open economy, we have taken the right steps to sustain our focus on export-led growth and our openness to trade.

Despite solid progress, there has been poor performance in terms of investment in training and skills development by enterprises and on investments in Research, Development and Innovation (RD&I) by both the state and businesses – *two areas that are fundamental to Ireland's economic success in a substantially changed external context*. In addition, some regions are lagging in terms of economic recovery and we still face issues relating to youth unemployment and relatively low participation rates.

Although not new, there are concerns about potential vulnerabilities due to concentrations in sectors, regions, geographic markets for exports and for Foreign Direct Investment (FDI), and in relation to our enterprise mix of foreign/Irish owned enterprises. In addition, our national productivity performance masks the underlying low levels of productivity in a number of sectors¹⁸.

While the speed of Ireland's recovery has been remarkable, it brings with it some challenges regarding our competitiveness. We are facing constraints on growth due to lack of sufficient investment in infrastructures as well as housing supply with associated increases in prices and rents.

These considerations have informed our review of Enterprise 2025. We face real challenges, but we do have time, if we take action now, to manage potential longer-term negative impacts. By taking action now, we can embed economic resilience.

Economic Resilience

The capacity of an economy to reduce vulnerabilities, to resist shocks and to recover quickly.

OECD (Organisation for Economic Co-Operation and Development) Economic Policy Paper No 20, December 2016

¹⁵ Labour Market Survey, Q3 2017, CSO

¹⁶ CSO Statistical Release, 30 January 2018, seasonally adjusted unemployment rate for month of January 2018; down from 7.4 percent in January 2017

¹⁷ Merchandise: CSO Statbank/BOP Annual Series/BPA19. Services: CSO Statbank/External Trade/TSA01 [excludes contract manufacturing]

¹⁸ ICT and Pharma chemicals are very high performing in terms of productivity. See also Benchmarking Ireland's Productivity, 2004-2014, National Competitiveness Council, January 2017

Our ambition

We intend to remain ambitious over the period to 2025.

Now is the time to remain true to our export-led growth policies.

Our focus is on:

- **sustaining** what we have in the immediate term;
- **transforming** our enterprise base for longer-term resilience; and
- **building on our strengths** to be successful in international trade while managing potential vulnerabilities.

Our vision

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The best place to succeed in business

delivering

- **sustainable employment** *and*
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Resilient – Innovative – Globally Connected

EMPLOYMENT
to reach at least

↑ **2.3m**

Increase
**IRISH OWNED
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of Indigenous Export
Growth to **REACH
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Increase **INDIGENOUS
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with greater
market diversification

Irish economy
expenditure by
**AGENCY SUPPORTED
COMPANIES** to reach

↑ **€29bn**

↑ **50%**

**INCREASE IN FDI
INVESTMENTS** from
markets outside
the US

UNEMPLOYMENT to

↓ **5.5%**

all regions <1%
of national average

Rank in
TOP 5

**MOST COMPETITIVE
SMALL COUNTRIES
IN THE WORLD**

Ireland as a
**Global
Innovation
Leader**

R&D intensity
2.5% GNP

Notwithstanding the uncertainties we continue to face, we will remain ambitious.

We want our policies to deliver **quality jobs** – jobs that are sustainable over the longer term - skills-based jobs that can support productivity-led wage increases.

We want our policies to **drive productivity growth** that will deliver **higher standards of living and quality of life for all** and ensure that *all* of our citizens and our regions can benefit from economic growth.

We will focus efforts to deliver on targets to 2020. The steps we take now aim to embed resilience so that Ireland's economy will remain strong over the longer term, to 2025 and beyond.

Our ambition is to remain on the path to long term sustainable growth, by achieving the following by 2020:

- at least 2.3 million people in employment¹⁹;
- an unemployment rate of no more than 5.5 percent while improving participation rates;
- realise the potential of our regions so that unemployment is within 1 percentage point of the national average;
- a 6-8% growth rate in indigenous exports to reach €26 billion, with greater geographic and market diversification;
- Ireland as a Global Innovation Leader with 2.5% of GNP invested in RD&I;
- expenditure in the Irish economy of €29 billion by agency supported enterprises;
- rank in the top 5 most competitive small countries in the world, with a business environment that supports entrepreneurship, scaling of Irish owned enterprises and is attractive for the next wave of foreign direct investment.

Our approach

Our enterprise policies *are* delivering. We still face a number of unknowns as external factors evolve. There are potential vulnerabilities within our existing enterprise structure. Within the broader scope for action, some areas have taken on greater import in today's challenging and changing external environment. In terms of priorities, we will:

- increase the emphasis on developing our Irish owned enterprises – embedding resilience in our enterprise base, enhancing productivity and delivering quality jobs – including supporting companies to navigate their way through Brexit;
- harness the distinctive characteristics of our foreign and Irish owned enterprise mix through collaboration and clustering;
- place a spotlight on innovation and talent and leverage our strengths in disruptive technologies so that we achieve our ambition with more enterprises developing new products, services and solutions to compete effectively against international competition;
- realise the full potential of our regions through investments in place-making – developing places that are attractive for business investment and for people to live and work in line with the goals of Project Ireland 2040²⁰;
- develop our international relationships and strengthen economic diplomacy to raise Ireland's visibility, protect Ireland's reputation and provide opportunities for our enterprises supported by the Global Footprint 2025 initiative.

¹⁹ Based on annualised average employment for the year 2020

²⁰ Project Ireland 2040 includes Ireland's National Planning Framework, DHPLG, and the National Development Plan 2018-2027, PER, published in February 2018. These are key instruments to realise the potential of our regions. All Government Departments align their capital expenditure over the coming decade with the ambition and desired outcomes set out in the National Planning Framework

Delivering quality jobs

Our policies are focused not just on numerical targets in terms of job creation, but also on ensuring the jobs created are quality, high productivity jobs in positive work environments which reward and develop employees.

Our policies will take into account the multi-dimensional aspects that define quality, including: ensuring opportunities for advancement through workplace learning and development; ensuring that people are educated and trained to meet the needs of enterprise availing of the range tertiary, apprenticeship and training options; recognising the opportunities presented by entrepreneurship as an alternative career path; and ensuring a system that facilitates flexibility without exploitation.

We are facing challenging times and cannot afford to assume that 'full employment' means that enterprise policy (and the agencies) have done their job.

The world of work is changing – the world of business investment is changing – the way of doing business globally is changing. Today's jobs are evolving as technologies in the work place are adopted – some of today's jobs will be replaced by new ones while others will be redefined.

We need to prepare and continuously adapt if we are to take advantage of emerging opportunities and to increase the productive capacity of our workforce.

Strategic actions

Our strategic actions set out where we will place an emphasis in response to the current economic environment. The fundamentals of our enterprise policy remain valid – with a focus on export-led growth underpinned by innovation and talent to deliver increased competitiveness and productivity.

We will deepen resilience so that we can anticipate and respond to external shocks and continuous change thereby delivering sustainable growth over the longer term.

Preparing for a post Brexit reality

The Government's statement *Ireland and the negotiations on the UK's withdrawal from the European Union – The Government's Approach*, published in May 2017 is a comprehensive statement that reflects the extensive preparatory work on consultations on the island of Ireland and at EU level. It outlines Ireland's positions and priorities that will underpin our engagement in the Brexit process as it unfolds over the coming years. Our coordinated, cohesive and evidence based approach remains critical to formulating effective and impactful policy responses. Minimising the impact of Brexit on trade and the economy remains a key priority in the ongoing EU-UK negotiations²¹.

21 The Government will publish a new paper in the coming months on our approach to the negotiations and our latest assessment of the economic and sectoral challenges posed by Brexit and our responses to them. This work will be grounded in the extensive work and outreach that has already been taken by individual Departments and agencies

Extensive contingency planning is underway to prepare for a range of scenarios and for the future EU-UK relationship. Detailed cross-Departmental work on a no-deal scenario is being advanced and coordinated by the Department of Foreign Affairs and Trade (DFAT). Such planning provides a baseline scenario for the policies and sectors impacted, which can then be adapted in light of developments in the EU-UK negotiations.

A range of macro-economic analyses has been undertaken to determine, to the extent possible, the impact of Brexit on the Irish economy. Most recently, for its part, the Department of Business, Enterprise and Innovation (DBEI) commissioned analysis of a range of possible scenarios – all of which produce a result that is less favourable than the one that currently pertains. Not surprisingly an EEA-like scenario would be least harmful, with Gross Domestic Product (GDP) in 2030 projected to be 2.8 percent lower than if Brexit had not happened. A more negative impact on the Irish economy would result in a World Trade Organisation (WTO) scenario²² with GDP by 2030 expected to be 7 percent lower than would otherwise have been the case²³.

DBEI research confirms that there is a wide variation in the level of concern about Brexit. Most significantly, DBEI research illustrates that Brexit will impact on different sectors in different ways, and that there is significant variation in levels of concern *within* sectors.

The analysis also suggests a ‘wait and see’ attitude amongst firms, with many yet to take specific mitigation actions. Results arising from a DBEI survey of Irish owned SMEs indicates that only 16 percent have contingency plans in place²⁴. This fact is reinforced by Intertrade Ireland’s quarterly all-island survey of businesses that indicates only 11 percent of export-oriented enterprises have a fixed plan for trading in a post Brexit environment²⁵. As our collective understanding of the full suite of implications evolves, we will develop more tailored solutions, placing a specific Brexit focus on sectoral differences²⁶. Furthermore, our analysis will inform Ireland’s ongoing negotiations to ensure that we achieve the best possible outcome for our most exposed sectors of the economy.



22 A WTO scenarios anticipates tariffs and quotas on all goods, full customs procedures, significant regulatory divergence and significantly reduced market access for services

23 Ireland and the Impacts of Brexit: Strategic Implications for Ireland arising from Changing EU-UK Trading Relations, Copenhagen Economics, (commissioned by DBEI) 2018

24 Building Stronger Businesses, Brexit, The View of Irish SMEs, B&A Confidential (commissioned by Department of Business, Enterprise and Innovation)

25 Intertrade Ireland Quarterly Business Monitor, Q3 2017

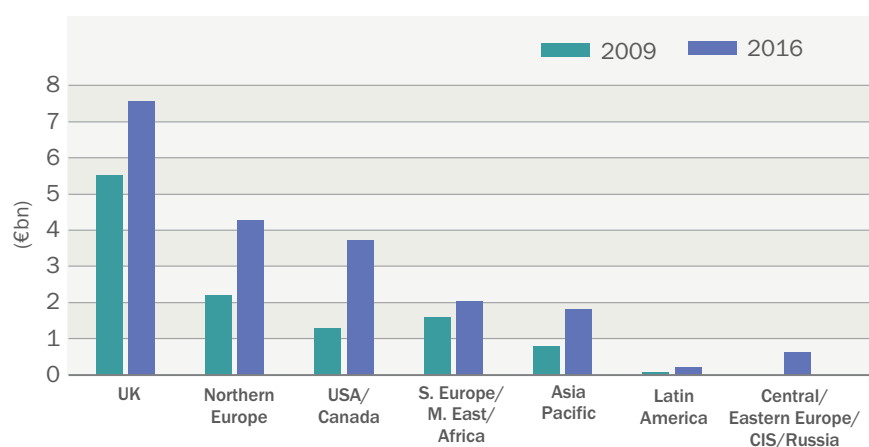
26 Drawing from analysis of Sectoral implications arising from Brexit completed end 2017; the Horizon Scan of Global Markets and Identification of Opportunities for Ireland undertaken to inform the Research Prioritisation; and a study on the Import Content of Irish Exports; Implications for inputs and competitiveness, due to be completed in Q1 2018 and published by end March.

DBEI and its agencies responded immediately to work closely with companies to determine the implications arising from Brexit. We have already introduced new initiatives. *Building Stronger Business* sets out the responses taken by DBEI and its agencies that encompass trade, regulation, State Aid, the future of the EU, FDI and research²⁷.

Enterprise Ireland’s *Eurozone Market Strategy* sets ambitious targets to realise a 50 percent increase in eurozone exports and actions to supports its clients along their journey.

In 2017, Enterprise Ireland delivered an impressive programme of 57 international trade events. Twenty of these were held in Asia-Pacific, including ministerial led missions to Japan, Singapore, Korea and Thailand, with a major trade programme as part of the President’s State visit to Australia and New Zealand. The events support the goal of securing high-level international market access for Irish companies aiming to grow their businesses overseas and increase domestic employment.

Figure i | Export growth in Enterprise Ireland client exports by region 2009-2016



Enterprise Ireland’s clients diversified their market footprint for exports, while simultaneously consolidating the value of exports to all regions over the period 2009-2016 (in line with Trade and Tourism Strategy). The UK market expanded by almost 38% over the period 2009-2016 to reach a value of €7.55 billion. While progress is being made, we need to accelerate efforts in this post Brexit era.

Source: Enterprise Ireland Annual Reports 2009 and 2016

For our enterprise development agencies, an in-market presence is essential to win investments, and to assist Irish owned enterprises to win export sales in global markets. There is now an imperative to accelerate our efforts to diversify both source markets for FDI and export markets. Ireland’s proposed *Global Footprint 2025* initiative aims to double the impact of our overseas presence through an increase in our enterprise agency global footprint and Embassy network.

In terms of trade and investment, Brexit has reinforced the urgency of pursuing an ambitious programme of negotiations at EU level. We will be working with EU partners to expand the portfolio of Free Trade Agreements (FTAs) which the EU negotiates on behalf of Member States across the world. Current priorities include Mexico, Mercosur, Chile, Japan, Australia, New Zealand, Indonesia and Vietnam.

DBEI has recently commissioned a study to examine the economic opportunities and impacts for Ireland arising from FTAs. The objective is to deepen our understanding of how Ireland can best take advantage of these opportunities, and ensure that our businesses are prepared to access new markets.

27 Building Stronger Business, responding to Brexit by competing, innovating and trading, Department of Business, Enterprise and Innovation, November 2017: See pages 7-10 for a listing of ongoing initiatives and supports

We will support our enterprises to navigate their way through Brexit impacts

We will:

- **Continue to raise awareness amongst enterprises**, informed by analysis and tailored to their sector and stage of business growth to **increase the level of preparedness**, across the economy including through the #Beprepared campaign.

Relevant agencies and bodies

- As part of the Government's wider Brexit strategy and strategy for supporting Irish SMEs (Small and Medium Enterprises), deliver the new competitive **Brexit Investment Loan Scheme** through commercial lenders to get much needed affordable working capital into Irish businesses who are adapting to the challenges of Brexit²⁸.

DBEI/SBCI (Strategic Banking Corporation of Ireland)

- Support companies to develop and execute **sustainability and growth plans in the context of Brexit** taking a planned approach to work with those sectors/activities most exposed to Brexit in the first instance. As part of this initiative, undertake further analysis to assess supply chain risk and required responses.

Enterprise Ireland, Local Enterprise Offices and relevant agencies

- Continue to support companies to **diversify export markets and to sustain UK exports**, working in partnership with Enterprise Ireland to develop strategic plans, identify market opportunities, participate in relevant trade missions and build capabilities in international selling.

Enterprise Ireland, Bord Bia

- Continue to **support the EU's ambitious programme of negotiating new Free Trade Agreements** giving Irish enterprises expanded market access and a predictable trading environment in third countries across the globe.

DBEI

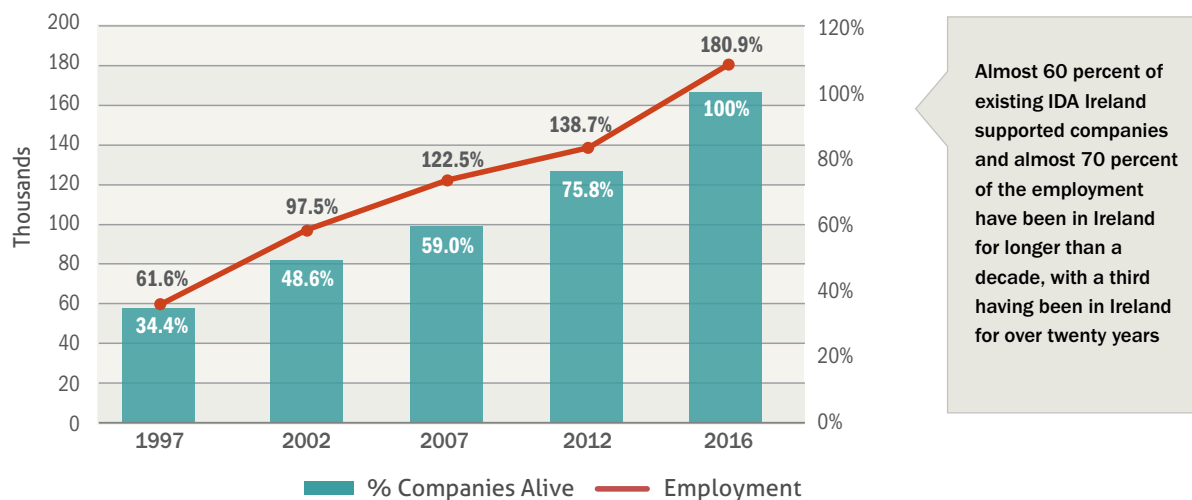
Increasing the emphasis on our Irish owned enterprises and deepening resilience in our enterprise base

Although considerable progress is being made to strengthen Ireland's enterprise base, we need to accelerate our efforts to deliver a demonstrable step change in enterprise competitiveness.

The benefits of our success in attracting FDI are undisputable. We recognise the value that FDI has brought to Ireland's economic growth over the past decade, its spillover impacts, and the degree to which many FDI companies are embedded in our economy (Figure ii). We now boast a much more globalised Irish leadership with the capabilities to succeed and achieve scale in international markets than might have been realised without an FDI influence. We have a strong entrepreneurial culture, a problem-solving attitude and an international perspective. A number of our Irish owned enterprises are leaders in their served markets and have a broad international footprint, having invested in innovation.

²⁸ Developed by the Department of Business, Enterprise and Innovation, working in partnership with the Department of Agriculture, Food and Marine, the SBCI and the EIB Group The new Brexit Loan Scheme aims to make up to €300 million available to businesses with up to 499 employees at a proposed interest rate of 4% <https://dbei.gov.ie/en/What-We-Do/EU-Internal-Market/Brexit/Brexit-Loan-Scheme/>

Figure ii | IDA Ireland supported entities (alive 2016) – sustainability and embeddedness



Source: DBEI analysis of ABSEI (unpublished)

Nevertheless, there are concerns raised that our economic model is overly reliant on foreign investments, not least because of the significant contribution they make to our Corporate Tax revenues. Such investments are sometime characterised as transient although as indicated above they have shown considerable longevity. In addition, there are too few Irish owned companies exporting, innovating and investing in management and skills development.

FDI will continue to be a core plank of Ireland's enterprise policy, and we need to continue to develop Ireland's overall proposition to attract and retain FDI in a changing world and against intense competition. However, it is timely to place an increased emphasis on building the competences of many more Irish owned enterprises so that our Irish companies become a key driver of growth over the next decade.

Factors that effect an economy's resilience

- > The competitiveness and innovative propensity of firms
- > The relational linkages of its firms with networks of other producers and customers in other countries
- > The skills of its workforce
- > Its entrepreneurial culture
- > Its institutional forms
- > The stance taken by, and resources available to regional/local policy bodies & development agencies
- > Economic governance arrangements

... will all shape the resistance and response of an economy to, and its recovery from, a shock.

The strategic actions to deliver on this objective are set out in the following sections.

We will support our Irish owned enterprises as a key pillar for growth

Our ambition involves a major transformation programme of *investment, innovation and capability development* to drive productivity in our Irish owned enterprises that can support quality and sustainable employment. We currently provide supports of €277 million to Irish owned enterprises through the work of Enterprise Ireland and the Local Enterprise Offices²⁹.

It is crucial that we continue to develop a pipeline of export ready companies through a renewed emphasis on potential exporters and on the opportunity arising from embracing on-line sales. We know that Irish owned exporters have on average 26.5 percent higher employment compared to Irish non-exporters and have labour productivity that is around eight percent higher³⁰. We will support them in taking a strategic approach to entering new geographic markets, building on existing traction and/or diversifying.

It is the capability developed 'at home' that prepares companies for success in internationalisation.

We now need to encourage more enterprises throughout the regions to innovate, to develop products and services that enable them to compete more effectively against international competition. Recent analysis of Enterprise Ireland supported enterprises shows a large percentage of non-R&D performing SMEs in sectors such as food, construction services, traditional manufacturing and business/financial services³¹. It is also important to acknowledge that many of our micro and small enterprises that trade on the local market now face international competition on their doorstep.

It is timely to support more Irish owned enterprises to invest in innovation, leadership and skills development to strengthen competitiveness and productivity growth. In terms of leadership, research has shown that gender diversity on company boards is associated with increased effectiveness and responsiveness to customers' and stakeholders' needs. Furthermore, such diversity in business leadership delivers improved financial performance and shareholder value, improved board performance, positive core values and risk attitude.

Global Ambition

At Enterprise Ireland, we support global ambition.

We're backing businesses with the vision to innovate and scale in new markets.

We have a wide range of financial, training, competitiveness and leadership supports designed to match that ambition at every stage

www.enterprise-ireland.com

A strategic focus on innovation

We are targeting RD&I funding through our agencies to support innovation in products, services and processes which enterprises need to compete.

Building Stronger Business,
DBEI, Nov 2017

29 Based on Annual report 2016 'Enterprise Ireland, Allocation of Funds' - includes €85 million in Equity and Investment funds, investments of €103 million in Technology Centres and Local Enterprise Offices funding; and excludes client and corporate services network (€75 million) and Funds administered on behalf of third party agencies (€6 million). IDA Ireland provided approximately €99 million in grant support to foreign owned entities in 2015

30 <https://www.esri.ie/publications/irish-enterprise-exporting-patterns-in-goods-and-services/>

31 A Review of RD&I Supports available to Businesses in Ireland to maximise Business Expenditure on Research and Development, Indecon (commissioned by DBEI and unpublished as at January 2018)

Government has committed to greater gender balance in business leadership in its National Strategy for Women and Girls 2017-2020³² and DJE will develop and implement a range of measures to support the objective of greater representation of women in corporate boards and senior management positions.

It is important that we celebrate success and continue to promote Irish innovation to potential buyers in the Eurozone and other high growth markets – particularly as we aim to help enterprises to diversify while sustaining UK exports.

We will:

- **Drive greater investment in innovation in products, services and solutions by enterprises** so that they compete effectively at home and overseas against international competitors placing an emphasis on: getting companies started through innovation vouchers; embedding innovation and new product/service introduction into their strategic business plans; broadening the understanding of innovation in business process and services; developing design thinking as a core competence; and on assisting young Irish disruptive technology companies to access the EU Horizon SME instrument.

Enterprise Ireland: Local Enterprise Offices

- **Deliver improved competitiveness and productivity growth through capability building** at the level of the firm, tailoring supports to meet the specific needs of the company depending on stage of development and market orientation (drawing on productivity analysis by NCC and the Department of Finance) and using existing initiatives for:
 - **embedding Lean practices across business operations that contribute to environmental sustainability and competitiveness, placing a stronger emphasis on take-up from services companies, and supporting investments in capital equipment, technology adoption, and up-skilling;**
 - **strengthening financial management, strategic planning and awareness of alternative types of finance by promoting the newly formed Business Advisory Hub that will become available to all medium, small and micro enterprises in the second half of 2018; and**
 - **stimulating take-up of competitiveness initiatives including Lean, innovation vouchers, on-line vouchers, training and mentoring by small and micro firms trading on the local market across all regions.**

Enterprise Ireland: Local Enterprise Offices

- **Implement *Toward Responsible Business*** with a focus on illuminating the win-win benefits of Corporate Social Responsibility to SMEs in terms of attracting talent, differentiation in the market and contribution to sustainable development goals and enhanced productivity.

DBEI/Enterprise Ireland, Local Enterprise Offices

#IrishAdvantage

.... Promoting the attractiveness of Irish goods and services in export markets.

www.enterprise-ireland.com

32 National Strategy for Women and Girls 2017-2020: creating a better society for all, Department of Justice and Equality, April 2017

New approaches to increase take-up of initiatives

As interventions and supports to enhance enterprise resilience and performance are devised and rolled-out, we will take every step possible to ensure that as many eligible firms as possible avail of them³³. Research suggests that even the best-designed and well-marketed supports do not attract maximum participation by enterprises, and explanations for this include behavioural factors³⁴. These behavioural factors can, for example, generate doubts by firms about the benefits and value of assistance, versus the cost and/or time involved. The application of behavioural science can help counteract negative factors, and empirical research has shown this to improve participation rates.

We will:

- **Apply behavioural insights to programme design and promotion to increase take-up and effectiveness.** Review existing supports to identify a number which can be deemed good candidates for enhancement using behavioural insights, and apply behavioural insights *ex ante* to the design and promotion of all new initiatives. Based on the learnings from this process, formalise, document, and publish how behavioural insights are to be routinely applied to enterprise programme design and promotion from 2019.

DBEI/Agencies

We will strengthen aspects of the business environment to support our SMEs

We need to review our supporting policies to ensure that they are aligned with meeting our objectives for Irish owned enterprises as key drivers of growth.

While not the only solution, Ireland's taxation regime plays a key role in supporting SMEs as they cope with today's uncharted landscape. Progress has been made over recent years through the introduction of Entrepreneur relief and Key Employee Engagement Programme (KEEP). The R&D tax credit, the Knowledge Development Box (KDB) and three-year Start-Up relief are important supports for Irish owned enterprises and their ability to compete and grow. Ireland's 12.5 percent corporate tax rate benefits our Irish owned enterprises too, and supports their ability to reinvest for growth. However, we need to take account of our comparative position relative to the offerings of our main competitors, and the reality that Irish enterprises are mobile too. It is also important that administrative processes are appropriate and consistent, and that administrative burdens for SMEs are minimised for all relevant initiatives.

In terms of access to finance, we can expand the productive capacity of the economy by addressing the investment gap for SMEs. Recent research indicates that current levels of enterprise investment are about a third lower than would be expected based on factors such as their level of economic performance³⁵. ESRI modelling suggests that the gap amounts to just over €1 billion for 2016 alone. This level of underinvestment is significant. While considerable progress has been made, access to a range of appropriate finance options remains important – tailored to meet the needs of vulnerable but viable companies; as well as stimulating equity investment in start-ups and more mature scaling entities. We need also to raise strategic finance capabilities within SMEs.

The sections on clustering and place-making are also pertinent to delivering on our ambition for employment growth throughout the regions.

33 DBEI and its agencies regularly undertake evaluations of individual programmes to determine outcomes and value for money. Interventions may be discontinued and/or adapted based on the analyses to ensure objectives are achieved and to maximise economic outcomes

34 including a reliance on heuristics (e.g. availability bias; status quo bias), loss/gain asymmetry, temporal discounting, and cognitive load

35 Measuring the Investment Gap and its Financing Requirements for Irish SMEs, ESRI, 2017

We will:

- **Maintain the competitiveness of Ireland's tax regime** so that it supports start-ups, SME scaling, internationalisation and business investment and set out a planned approach and roadmap for relevant areas (which may include proposals for enhancing corporate Capital Gains Tax, the cap on Entrepreneurship relief, Foreign Earnings Deduction extension).

DoF

- Continue to facilitate the creation of a **comprehensive and competitive funding environment** to support entrepreneurship and our enterprises' ambitions for growth:
 - explore the provision of a **longer-term Business Development Loan Scheme** to provide competitively priced loans for a period of up to 10 years to enterprises for strategic investment in a post-Brexit environment, which will help to address long-term financing needs of Irish enterprise;
 - further highlight **alternative sources of non-bank funding**, both debt and equity, as a viable option to assist companies at various stages of the business life-cycle. Develop a stronger equity culture where finance can be raised through individuals, business angels, venture capitalists and private equity funds;
 - **evaluate the Seed & Venture Capital Scheme** to inform a determination on the future strategic role of the State in ensuring that a suite of appropriate funding options continues to be available to support our Irish owned start-up and scaling companies.

DBEI

- On foot of recent **legislative changes, comprehensively** review the Employment and Investment Incentive Scheme to ensure it operates as an efficient and effective tax expenditures measure in accordance with State Aid rules and Tax Expenditure Guidelines to encourage risk capital investment in Irish start-ups and assist in job creation. Consider developing a notified scheme to address market failures to incentivise equity investment into more mature and scaling companies.

DoF/DBEI

- Ensure that **administrative processes operate as efficiently as possible** so that administrative burdens for SMEs are appropriate and proportionate to ensure the effective implementation of the initiatives.

Revenue

We will support the transformation of our foreign owned entities and diversify source markets for investment – delivering value and economic impact

While placing an emphasis on Irish owned enterprises, we will not lose sight of the continuing importance of FDI to Ireland's future growth ambition. As set out in the next section, we need to continue to develop Ireland's overall proposition to attract FDI in a changing world and against intensified competition.

At the level of the enterprise, IDA Ireland's transformation agenda involves working with its existing client base to help them to continuously reposition themselves to remain strategically important to the parent corporation³⁶. It is this deep relationship, and the ability to continuously attract higher value investments, that embeds foreign owned enterprise in Ireland.

³⁶ Enterprise Ireland supports foreign owned food enterprises based here, and plays a key role in attracting investment. This section places a specific focus on the IDA Ireland supported cohort

While Ireland boasts a significant proportion of leading edge global players, we cannot assume that all foreign owned entities based here are to the fore-front of innovation and productivity. Smaller foreign enterprises can avail of a suite of supports tailored to their needs, aimed at improving competitiveness through lean, environmental sustainability and capability building initiatives for example.

We know that foreign owned and large entities contribute the greater proportion to business expenditure in RD&I³⁷, and that the return on state investment delivers value for money³⁸. However, the number of foreign owned entities engaging in RD&I has remained relatively static over the past decade³⁹. Evidence shows that over half of IDA Ireland supported foreign owned entities do not currently engage in RD&I⁴⁰.

We will:

- **Drive a step-change in the number of foreign owned entities engaging in RD&I** with a focus on sectors and activities where entities are less R&D active;
- Continuously drive **collaborations with** Science Foundation Ireland and Enterprise Ireland supported **research and technology centres**, promoting the Innovation Partnership Initiative as appropriate, and highlighting specific barriers to uptake that can be monitored and addressed by the policy system.

Ireland's success in attracting FDI has resulted in deep links with the US. The US is the primary source market with over 70 percent of the employment in IDA supported entities in US owned corporations. Although the commercial reality is that US multinationals will continue to invest in non-US locations to access the European and other international markets, we need to mitigate potential risks by accelerating efforts to attract investments from other high growth markets. We have already seen a ramp up in investment projects from Asia and other growth markets from 4 in 2010 to 22 in 2017.

- **Accelerate efforts to diversify source markets for FDI**, supported by stronger cross-Government strategic communications, enhanced economic diplomacy, an increase in well-planned Ministerial trade missions focused on achieving our strategic objectives, and delivery of strategies for the Americas and Asia Pacific. IDA Ireland, our Investment Promotion Agency will deliver growth in project investments from non-US markets of 50 percent over the period 2015-2020.

IDA Ireland/Embassy network

37 A total of 73 percent of Business Expenditure on R&D is accounted for by 100 companies, and 76 percent of this spend is attributed to foreign owned entities

38 Evaluation of Enterprise Supports for Research, Development and Innovation, Forfás, 2013

39 CSO BERD indicates that the same number of non-Irish firms were engaged in RD&I in 2015, at 387, as was the case in 2007 (although the number had increased to 417 in 2011)

40 ABSEI

See section on differentiating Ireland on the global stage to enhance attractiveness for investment

Supporting enterprises – tailored to lifecycle, scale and capability

Changing external forces, the increasing interconnectedness in a globalised environment, the ability of enterprises to internationalise at an early stage of their lifecycle, and the fact that entrepreneurs are making location choices from the outset mean that policy distinctions based on ownership are becoming increasingly blurred.

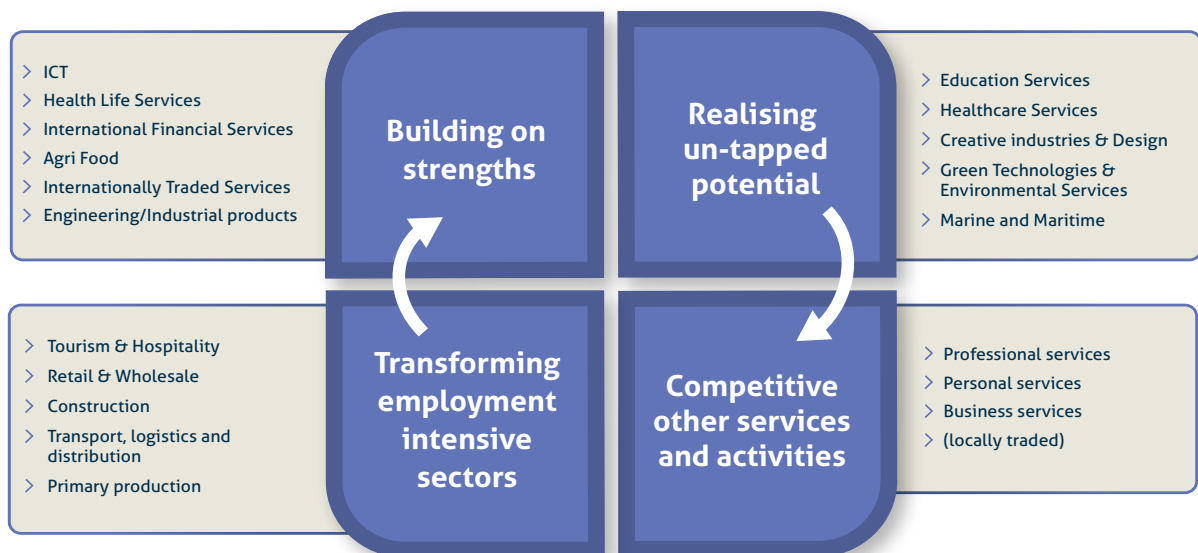
In Ireland, the challenges facing Irish owned enterprises are also relevant especially to the smaller foreign owned IDA Ireland supported client companies that are located throughout the regions. IDA Ireland has extended its suite of offerings, tailored to the needs of these entities.

Building on existing strengths and seeking out new opportunities - clustering, collaboration and connections

We will take a portfolio approach to sectoral development – deepening resilience

Enterprise 2025 set out a portfolio approach to sector development – recognising that sectors contribute in different ways in the economy, delivering value added, export growth and quality employment throughout Ireland (Figure iii). Since Enterprise 2025 was published employment has increased across all sectors of the economy.

Figure iii | Sectoral cohorts



Source: DBEI analysis

Effective regulation – underpinning Ireland’s reputation in key sectors

Ireland has a strong reputation in sectors that are underpinned by effective regulation.

Post Brexit, we can position Ireland to the fore-front for operational excellence and quality.

By embracing effective regulation and standards Ireland will drive innovation and competitiveness.

Ireland can further build its reputation for high standards, trust and credibility.

Ireland will continue to contribute to European and International regulatory fora such as the Council of the European Union’s Competitiveness and Growth (Better Regulation) Working Party, the OECD’s Regulatory Policy Committee, The Directors and Experts of Better Regulation, and the Better Regulation Network.

There is increased potential for exports and for significant transformation in terms of innovation and productivity across *all* cohorts – embedding resilience, sustainable growth and quality employment.

Many of the actions set out at both business environment and firm level are key to driving productivity growth across *all* sectors including investments in talent and in physical, digital and research infrastructures. At the level of the enterprise, initiatives to stimulate RD&I, Lean, mentoring, leadership and skills development, continuous learning and trading online deliver enhanced productivity growth and competitiveness. The suite of supports available are tailored to meet differing needs across the life-cycle of a company and appropriate to size, existing capabilities, market orientation and ambition⁴¹.

Potential vulnerabilities

While this is positive, there are indications of potential vulnerability:

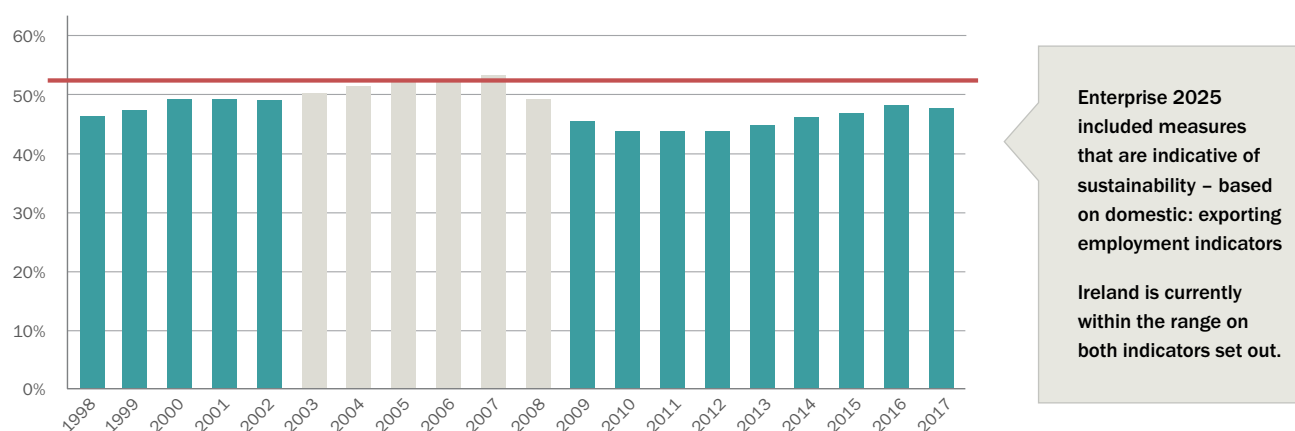
- > In relation to ‘employment intensive sectors’, there has been considerable growth in construction since Q3 2012, with over 45,000 new jobs created over the period to Q3 2017⁴². Additional construction workers will be required to deliver the 81,000 houses needed over the period 2016-2020⁴³, indicating a real challenge in the context of a 6.1 percent unemployment rate (Jan 2018). There is a risk of driving increases in construction labour wage rates and diverting scarce skills away from more productive sectors as we address the housing shortage. Yet addressing the housing shortage is vital for national competitiveness and attractiveness for investment as well as for the public good more generally. We need to ensure that we have a sustainable ‘balance’ within the economy and that growth remains driven by exports (See Figure iv).

41 See <https://www.supportingsmes.ie/BusinessDetails.aspx>

42 CSO LFS Q32017

43 Housing Agency, February 2017

Figure iv | Proportion of employment in sectors comprising the domestic component of the economy 1998-2017



Source: DBEI analysis

- > The level of sectoral concentration in the agency supported cohort (and a relatively small number of enterprises in some instances) for exports, employment and value added is an area of concern in the context of risk mitigation. Two sectors, Information and Communication Technology services (ICT) and Chemicals account for over 60 per cent of exports⁴⁴ and 50 percent of value added. Analysis of IDA Ireland recent approvals and job announcements indicates a continuing concentration on technology related activities. There is potential for crowding out or inflationary effect as enterprises compete for essentially the same skills⁴⁵.

At the same time, it is these very ICT skills that are needed to drive productivity and growth in virtually all enterprise activities as digitisation creates new business models, new production methods, new processes and new ways of working. A continued focus on developing the pipeline of ICT skills, promoting ICT career paths and upskilling in the workforce is essential⁴⁶.

There is somewhat of a conundrum in terms of building distinctive strengths (smart specialisation strategies) within an increasingly competitive globalised environment while at the same time ensuring there is a degree of diversity in Ireland's enterprise structure.

In reality, analysis at a high sectoral level can mask the fact that companies target different end markets and/or develop niche products and services such that apparent 'vulnerabilities' are less of a concern (see Text Box 1 – defining sectors). We will continue to monitor progress and the composition of employment, exports and investment on an ongoing basis to remain aware of concentration risks.

⁴⁴ 40 per cent exports from ICT Services and 20 per cent Chemicals, ABSEI 2017. Within the agency cohort, ICT services, Medical technologies and Chemicals account for 56 percent of total employment in foreign owned entities. ICT services accounts for 30 percent total employment in foreign owned entities and 7 percent of employment in Irish owned enterprises, 2016

⁴⁵ according to the agencies, this is more a Dublin specific issue

⁴⁶ See ICT Skills Action Plan, 2014-2018, Government, education and industry working together to make Ireland a global leader in ICT talent, Department of Education and Skills

Text Box 1 - Defining sectors

The sectoral definitions of NACE coding do not necessarily reflect the broad range of activities, sub-segments, functions etc., within an overarching sector such as ICT (including software development, data analytics, technology platforms, customer technical support). Nor does the data provide insights into the extent to which the sectoral activities based here are connected to Global Value Networks and/or susceptible to interdependencies (potentially positive and negative).

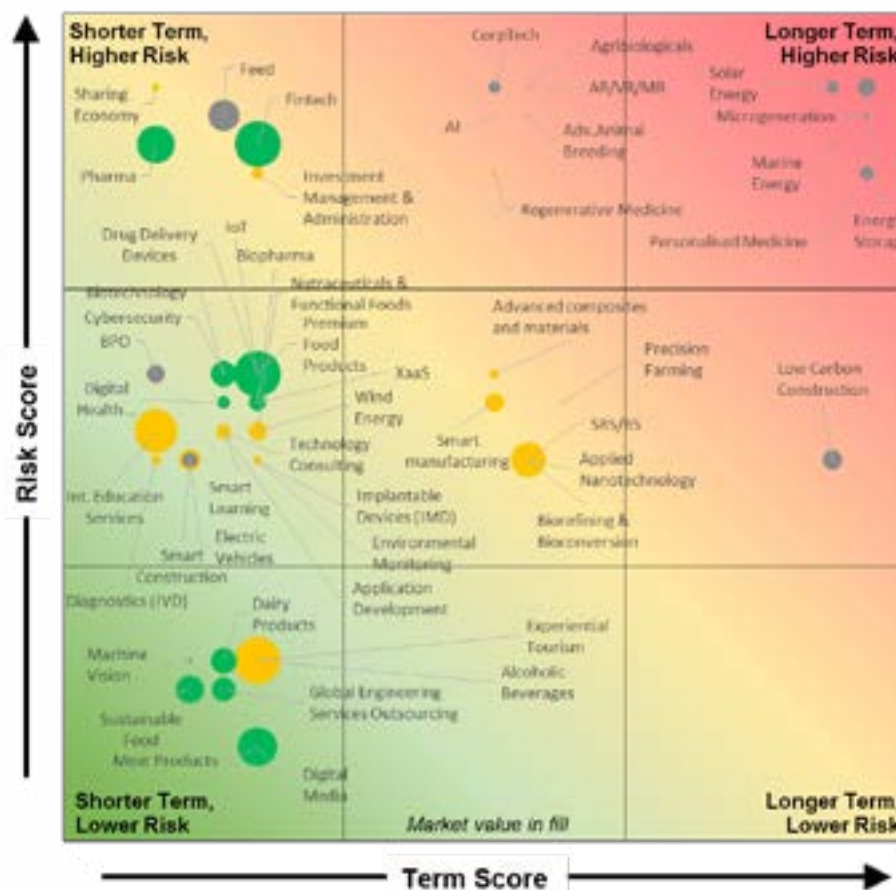
It is also useful to distinguish between a market growth opportunity and the sectors that serve them – a number of sectors may address a particular market opportunity. For example, market opportunities arising in healthcare are serviced by sectors involved in medical technologies, diagnostics, pharmaceuticals, engineering, materials and electronics.

New opportunities

The enterprise development agencies are continuously engaged in horizon scanning and analysis to identify future opportunities in end-markets. DBEI has recently finalised a highly consultative market horizon scanning process to inform research prioritisation and enterprise policy. A total of 51 market opportunities were identified, demonstrating the range of potential as sectors, activities, global business models and technologies evolve (Figure v).

The emergence of new opportunities can be facilitated through providing a favourable eco-system for innovation and entrepreneurship and a framework to stimulate the bottom up dynamics seen in clusters and cluster initiatives (See sections on clustering and place-making below).

Figure v | Existing or emerging global markets with potential for Ireland



51 Market opportunities for Ireland and Irish based enterprise were identified following an assessment of global markets. Opportunities were assessed and tiered using a range of criteria related to the scale of the global opportunity, Irish capacity and capability and the potential impact.

Tier 1 opportunities are coloured - green

Tier 2 - yellow, and

Tier 3 - blue

Risk is defined as low, moderate and high.

Term is defined as short, medium and longer term.

The size of the bubbles indicate the market value.

What's new?

Emerging industries are defined as 'the establishment of an entirely new industrial value chain, or the radical reconfiguration of an existing one, driven by a disruptive idea (or convergence of ideas), leading to turning these ideas/opportunities into new products/services with higher added value'.

<http://www.emergingindustries.eu/policy-roadmap.aspx>

According to the European Commission, many emerging industries, such as creative industries, mobile and mobility industries and eco-innovative industries, have in common that they grow out of existing industries and hence cut across different, traditionally defined sectors, thus building new industrial landscapes and value chains that encompass cross-sectoral competences and linkages.

Smart Guide to Cluster Policy, European Commission, 2016

A new approach to sectoral development

In response to ongoing global challenges, we need to strengthen our approach to enhancing the business environment in a way that accounts for sector-specific needs. The more we identify/understand sector specific ecosystem aspects and take the necessary action to mitigate risks, accelerate growth, identify opportunities or remove barriers, the more likely it is that the full potential of a sector will be realised to deliver jobs and economic impact.

At times like this, when sectors face unprecedented challenges, an intensive or elevated sector specific response from across Government may be warranted, through the establishment of Sector Ecosystem Development Teams (or Top Team) as set out in *Enterprise 2025*. Furthermore, growth in nascent opportunities at the blurring of the edges of existing sectors can be accelerated through focused eco-system development (See Appendix III).

It is anticipated that a Top Team would be limited in size, have strong leadership, include high level Government, industry and research community representation, with a clearly scoped Terms of Reference, have a sunset clause and be adequately resourced as appropriate with a small core team involving a senior level business development manager. The focus of a Top Team may be on longer term strategy or on addressing a specific challenge that requires engagement across different players and a multi-strand response. The aim is to have a limited number of Top Teams in operation at any one time and to avoid duplication with existing effective sector specific constructs⁴⁷.

We will:

- > **Monitor performance and interventions at a sectoral level**, informed by Department of Finance and the National Competitiveness Council productivity analyses, to improve management capability, adoption of technologies, investment in up-skilling and transition to on-line sales.

Enterprise development agencies

- > **Embed a more systematic and comprehensive approach to horizon scanning** that will harness in-market and sectoral knowledge to facilitate the identification and assessment of emerging opportunities, disruptive trends, other country policies and innovative initiatives.

Agencies/Team Ireland

⁴⁷ The Department of Food, Agriculture and the Marine are in the process of establishing a High-Level Innovation Group for the sector to review current agri-food sector innovation capacity, the utilisation of this capacity and to better market the Irish agri-food sector's innovation capabilities; the High-Level Group for Internationally Traded Financial Services was set up to drive the implementation of IFS2020 and continues to meet on a six-monthly basis (supported by Department of Finance)

- Informed by Brexit-related analysis and implications arising from recent global developments, **update Sector Briefs** and set out sector specific actions to support the development of the sector. The Sector Briefs will include key sectors of the economy, including locally traded activities, and will have relevance to both Irish and foreign owned enterprises.

DBEI, relevant Government Departments & agencies

- Establish 3-4 Top Teams over the coming years to **support sectoral development**, based on exposure/vulnerability to prevailing global trends and/or emerging potential, with clear terms of reference, objectives, monitoring and a sunset clause.

Relevant Department lead & agencies

National Policy Statement on Bioeconomy – realising new opportunities for growth

The bioeconomy presents opportunities for Ireland to create economic growth, employment and a sustainable society. The realisation of this opportunity requires policy coherence across relevant sectors. We aim to harness enterprise, research and innovation capabilities in natural capital management, agriculture, forestry, the marine, bio-based processing, biotechnology and pharmaceuticals.

An example of what can be achieved in the bioeconomy is the success of Glanbia in transforming whey protein, a side stream product of the dairy industry with limited value, into a critical ingredient in the global human nutrition market.

We will capture the benefits of Ireland’s distinctive enterprise mix through collaboration, connections and clustering

Ireland’s enterprise structure is somewhat distinctive as a result of enterprise policies that have been in place since the late 1950s. Ireland now hosts a cohort of the leading global players in a range of key sectors. These foreign owned entities contribute the greater proportion to exports, to value added, to Corporation Tax yield and to investments in R&D by a considerable margin. By focusing on FDI performance, and a tendency to compare with Irish owned enterprises, we can overlook a number of facts. For example:

- while foreign owned entities supported by IDA Ireland employ a total of 210,443, export oriented enterprises supported by Enterprise Ireland employ similar numbers at 209,338⁴⁸;
- Enterprise Ireland supported companies had higher levels of direct economy expenditure (DEE) in terms of payroll, materials and services at €24.6 billion in 2016 relative to €17.9 billion for IDA Ireland supported entities⁴⁹;
- value added of Irish owned enterprises increased by an impressive 54 percent over the 5-year period 2011-2016⁵⁰; and
- R&D spend by Irish owned enterprises increased by 15 percent in one year (2015/2014) and by almost 44 percent over the recessionary period 2009-2015⁵¹.

48 IDA Ireland End of Year Statement 2017 and Enterprise Ireland End of Year Statement 2017 – includes full and part time employment

49 ABSEI 2017, DBEI. Irish owned enterprises tend to have a higher proportion of DEE relating to materials and services, whereas it is salaries that represent the higher proportion of DEE for foreign owned entities

50 Analysis of ABSEI 2016, DBEI

51 CSO Business Expenditure on Research and Development 2015-2016

The foreign/Irish owned enterprise mix presents distinct challenges for Ireland. But it is also this mix that makes Ireland unique - and it is this mix that can continue to drive sustainable export growth and job creation and strengthen resilience by putting in place appropriate policies.

Foreign & Irish owned ... both have a role to play

While understanding the contribution of foreign owned entities to Ireland's economic success, we need to caution against direct comparison of foreign and Irish entities.

We are not comparing like with like.

Irish owned enterprises start up in Ireland and grow from here.

They need the strategic funding and leadership capabilities to develop new products and services, to identify and capture new market opportunities and to develop channels to market.

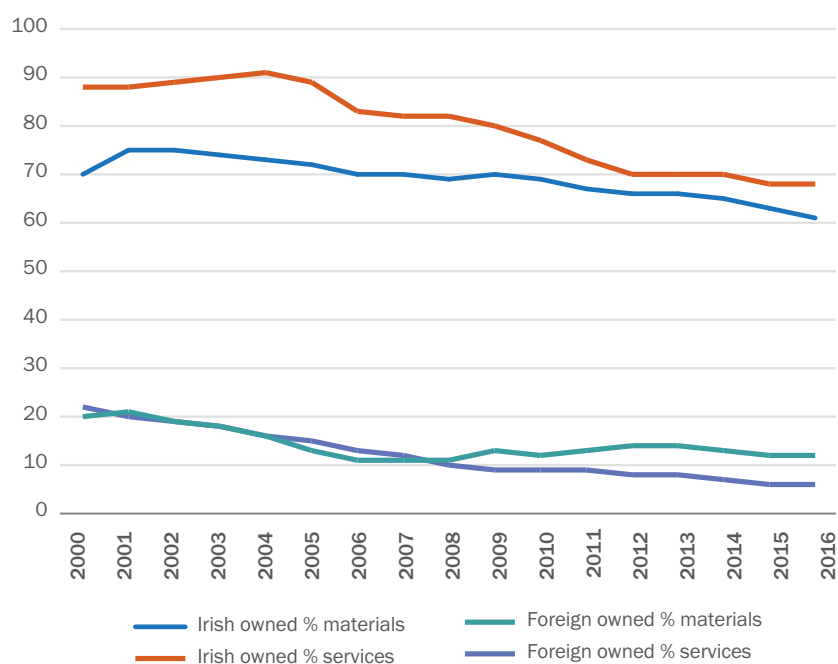
Foreign owned entities, when they set up here, are generally more established, have channels to market already identified and benefit from scale, funding and R&D investments made by their parent corporation.

Both have a role to play in Ireland's economy. We can continue to put initiatives in place that maximize spillovers and deliver sustainable growth.

There is potential to further strengthen collaboration between foreign and Irish owned enterprises, and between enterprises, Higher Education Institution (HEIs) and the research base.

Already, the Global Sourcing Initiative (See Figure vi), Trade Missions to Ireland and Peer networks for Lean initiatives provide a stimulus to increase linkages between Irish and foreign owned entities and contribute to optimising spillover benefits. In the context of Brexit and disruptions to supply chains, it is timely to accelerate activities in this regard, building on learnings to date, and further strengthening the capabilities and capacities of Irish owned enterprises to meet demand for innovative products and services.

Figure vi | Stimulating linkages: agency supported enterprises – proportion of materials and services sourced in Ireland 2000-2016



Irish sourced goods and services is increasing in value terms since 2010, helped by the Global Sourcing initiative that was launched in 2012.

Nevertheless, there has been a steady decline in terms of the proportion of materials and services being sourced from within Ireland by agency supported enterprises over the past fifteen years.

Source: ABSEI, DBEI, 2016

Solid progress is being made in relation to enterprise/HEI collaborations. Our investments in Research Centres and Technology Centres that aim to drive greater collaboration with enterprise are potential catalysts for distinctive clustering throughout the regions in Ireland. It is important that we continue to evaluate these initiatives, including ex-post, interim and ex-ante so that we monitor, adapt and follow-through on support to realise economic impact over the longer term. While these initiatives are national, they can and do have regional impact.

Regional funding and initiatives including the Regional Enterprise Development Fund (REDF), the Regional Action Plans and Regional Skills Fora have been put in place to stimulate greater interaction. Although at a relatively small scale (ranging from €50,000 to €5 million per project in four streams), the competitive REDF provides a seed-bed for accelerating the growth potential of concentrations and clustering – by harnessing existing strengths, stimulating multi-disciplinary approaches to facilitate growth of emerging industries, enhancing collaboration, innovation and entrepreneurship, and/or harnessing underutilised assets.

As we review Enterprise 2025, a key question arises as to whether we are fully capturing the **potential synergies of our Irish and foreign owned enterprises to build clustering of scale and international visibility** – clustering that will attract and further embed foreign owned companies and stimulate the emergence and scaling of more innovative Irish owned enterprises and that tap into opportunities arising at the boundaries of existing sectors to take advantage of convergence.

We know that clusters in the vast majority of cases are not ‘created’, rather they emerge, because different locations provide different types of opportunities for specific companies to invest, succeed and grow. Clusters are the result of a cumulative process, take a long time and are inherently unpredictable.

The concept of a challenge centric approach was proposed in *Enterprise 2025* and *Innovation 2020*, that could stimulate cross sectoral and multi-disciplinary clustering, focused on developing solutions to address a specific problem statement. This is now underpinned through the commitments to a Disruptive Technologies Innovation Fund in the NDP.

Another approach may be to identify and support flagship projects that would benefit from public-private partnerships involving experiments with emerging technologies and a focus on the citizen experience. This could demonstrate national ambition and showcase Ireland as a technology-rich economy in an international context⁵².

Clusters are not synonymous with cluster initiatives

A cluster refers to the economic phenomenon of concentrations of economic activities.

Cluster initiatives (or clustering) create, maintain, or upgrade an economic stronghold, by strengthening linkages or facilitating collective action to improve the cluster-specific business environment.

Modern cluster policies aim to put in place a favourable business ecosystem for innovation and entrepreneurship in which new players can emerge and thus support the development of new industrial value chains and emerging industries.

Much of the dynamism of clusters derives from ‘economies of scope’ rather than static ‘economies of scale’. Clusters are more a reflection of cross-industry linkages and ‘related diversification’ than of narrow specialisation.

Smart Guide to Cluster Policy, Guidebook Series – How to support SME Policy from Structural Funds, European Commission, 2016

⁵² International examples include: the ambition to make Paris car free by 2025; Singapore is working with Siemens on waste disposal and marketing itself as a place for tech research into waste; Sweden is focusing on e-payments to become an almost cashless society; Estonia was the first country in the world to implement a nationwide ‘birth-to-death’ electronic health record system

Such larger scale initiatives would leverage Ireland’s distinctive enterprise mix, our investments in RD&I, and our existing sectoral strengths. They would position Ireland on the global stage as an attractive location in which to invest, and go some way to redressing concerns regarding vulnerabilities⁵³. Although resource constraints have hampered the ambition to date, it is important that we remain ambitious and identify ways by which we can make the step-change required to elevate Ireland’s clustering initiatives.

We will:

- Roll out the second phase of the **Regional Enterprise Development Fund** of €60 million⁵⁴ aimed at harnessing regional strengths, leveraging under-utilised assets and stimulating collaboration toward the achievement of a well-defined objective.

Enterprise Ireland

- **Undertake an evaluation** of the 2017/2018 funded projects under the **Regional Enterprise Development Fund** at the appropriate time and monitor progress, accepting that not all might achieve their stated ambition and that the learnings will serve to strengthen future approaches, and ensure appropriate follow-on funding to drive greater scale and international visibility over time.

DBEI

- Intensify the implementation of the Global Sourcing Initiative to **increase linkages between Irish and foreign owned enterprises** in the context of Brexit, disruptions to existing supply chains and potential for import substitution⁵⁵.

Enterprise Ireland, IDA Ireland

- Establish a €500 million **challenge based disruptive technologies innovation fund**, working with research funding bodies, to stimulate development and deployment of disruptive innovative technologies and applications, on a commercial basis, targeted at tackling national and global challenges.

DBEI and agencies, working with research funding bodies

- Consider **alternative options to stimulate clustering activities of scale and international visibility**, that build on existing initiatives, harness diversity in sectors and foreign and Irish owned enterprises, and leverage existing and/or underutilised regional assets to deliver economic impact throughout Ireland.

DBEI/agencies and other bodies as relevant

53 The American Chamber has worked with its member companies to devise a methodology and approach which can inform next steps. Establishing a Grand Innovating Challenge Process for Ireland, A Working Paper from the American Chamber of Commerce Ireland Research, Development and Innovation Leadership Forum (undated)

54 Phase I announced on November 11th involved funding of €35 million. Phase II in early 2018 will involve a total of €25 million

55 The proposed analysis of supply chains for specific sectors as set out in the Brexit section should also inform the areas of opportunity for intensifying this initiative

Placing a spotlight on innovation, talent and disruptive technologies

Setting the scene

The confluence of international developments presents challenges for Ireland in terms of its offering to attract investment from overseas, and to ensure our Irish owned businesses have access to sources of innovation and talent they need to internationalise.

The international tax environment

The international tax environment is undergoing the most significant change in decades. The OECD Base Erosion and Profit Shifting (BEPS) process and the EU Anti-Tax Avoidance Directive (ATAD) aim to reform the international tax environment so that taxing rights are better aligned with economic activity and ‘profit shifting’ by large multinationals is counteracted. More recent developments, regarding proposals for the taxation of digital services and the refocus on a Common Consolidated Corporate Tax Base (CCCTB), indicate that some countries favour a move toward a realignment of taxing rights towards market countries⁵⁶. Internationally there has been a marked trend of reduction in Corporation Tax (CT) rates⁵⁷. At the same time, the US has enacted significant reform of its tax regime which will affect the competitive balance of the international CT system with important implications for US firms based in Ireland.

Ireland’s position is clear. Our tax regime is transparent, fair and certain, and our policies are underpinned by economic substance. CT receipts in 2017 were €8.2 billion, well above levels ever reached in the State, and contributing 16 percent to total tax receipts of €50.6 billion⁵⁸. Based on 2016 data, the ‘Coffey report’ concluded that Ireland’s new level of CT receipts are most likely sustainable until 2020 – however is it difficult to speculate beyond that⁵⁹. Nevertheless, our reliance on a small cohort of large corporations for CT receipts is of concern. This presents an inherent risk in that a downturn in fortunes or the relocation of all or part of the business of one or more of those companies could significantly impact on Ireland’s budgetary position.

Tax is only one element of Ireland’s attractiveness as a location from which to do business; and in any event the difference between Ireland’s longstanding 12.5 percent rate and those of competing jurisdictions has been eroded over the past number of years. Location choices ultimately must make business sense. They involve considerations regarding access to markets, to skills and talent, and to innovation, a certain and appropriate regulatory environment as well as reputation.

US trade policies

The past year featured considerable change in international trade. Major developments included Brexit; the provisional application of the EU-Canada trade deal; the US withdrawal from the Trans-Pacific Partnership (TPP); and the impending renegotiation of the North American Free Trade Agreement (NAFTA). There are plans to overhaul the US immigration system, drastically cutting the number of legal immigrants allowed into the country and implementing a “merit-based” visa scheme.

56 The OECD report on the taxing of digital transactions is due early 2018. In relation to CCCTB, Ireland is engaging constructively with the process and any changes will require unanimity

57 In 2017, seven European countries have lowered their corporate tax rates indicating a ‘rich seam of competition within Europe’ according to EY (2016) The Outlook for Global Tax Policy in 2017

58 End 2017 Exchequer Returns, Department of Finance, January 2018 <http://www.finance.gov.ie/wp-content/uploads/2018/01/180103-End-December-2017-Exchequer>Returns-Presentation.pdf>

59 Review of Ireland’s Corporation Tax Code, Mr. Seamus Coffey; Mr Coffey also states that projections must be taken with caution as historically CT has been the most volatile of Ireland’s main taxes

The EU and the US are exploring ways to enhance cooperation on global trade challenges, such as overcapacity in the steel industry, as well as concrete initiatives to facilitate transatlantic trade. While the US remains the EU's biggest export market and a key ally, Ireland is potentially vulnerable to a shift in US policies on trade and immigration, not least because of our success to date in attracting US FDI.

In March 2017, US President Trump signed an Executive Order to commission an Omnibus Report on Significant Trade Deficits⁶⁰. The aim of the Report was to identify those foreign trading partners with which the US had a significant trade deficit in goods in 2016⁶¹. Ireland has a large trade surplus with the US for goods (and for Pharmaceuticals), which may leave us potentially vulnerable to the outcome. It is important to note that Ireland had a relatively small overall surplus of €4.9 billion with the US when services are taken into account⁶². The European Commission (DG Trade) made a written submission on behalf of the EU as part of the consultation process, to which Ireland contributed. The Report was presented to US President in early summer 2017 by Secretary Ross, and it is unclear whether or not the report will be published. Any developments in the area will require an ongoing watching brief to monitor and determine any potential business impact and policy responses if/as needed.

Technological advances

Technological advances are not new. Since the publication of *Enterprise 2025*, however, the disruption to global business models and to ways of working are now becoming a reality for all businesses. Disruptive technologies such as 3D printing, Artificial Intelligence, Virtual Reality and Augmented Reality are starting to take hold – with the potential to have a transformative impact on productivity, innovation and profitability. The application of technologies through automation and automisation will mean that some posts will inevitably become redundant. According to a recent report by PricewaterhouseCoopers (PWC), *'new types of workers who will focus on thinking creatively about how AI can be developed and applied, a new set of personnel will be required to build, maintain, operate and regulate these emerging technologies'*⁶³.

The pervasiveness of technological advances requires a new way of thinking for enterprise policy if we are to capitalise on opportunity and ensure that no person is left behind. The policy agenda is broad, including progressing the Digital Single Market, data protection and data security, intellectual property regime, investments in digital infrastructures, up-skilling and re-skilling people in the workforce, the education and training systems, employment legislation and digital taxation.

From an enterprise policy perspective, these changes mean we need to invest in areas that will differentiate what Ireland offers in an international playing field. In Ireland, as a small open economy with a young and well educated workforce, the prospects for continued growth through digital enterprise are strong.

Informed by external drivers of change, and in addition to the clustering and sectoral ecosystem approaches set out above, we will place an increased emphasis on a number of key areas that are complementary and mutually reinforcing:

- > Innovation;
- > Talent and skills;
- > Placemaking; and
- > Positioning Ireland to the forefront in a technology-rich world.

60 The Order requires the Secretary of Commerce and the United States Trade Representative (USTR) to submit the Report within 90 days from the date of the Order

61 In announcing the Order, Commerce Secretary Wilbur Ross listed countries that could be involved, including Ireland. According to US Census Bureau, Ireland has the 5th highest trade surplus in goods with the US

62 This figure is a combination of a goods surplus of €24.4 billion and a services deficit of €19.5 billion, Source CSO

63 Sizing the price, What's the real value of AI for your business and how can you capitalise? PWC, November 2017

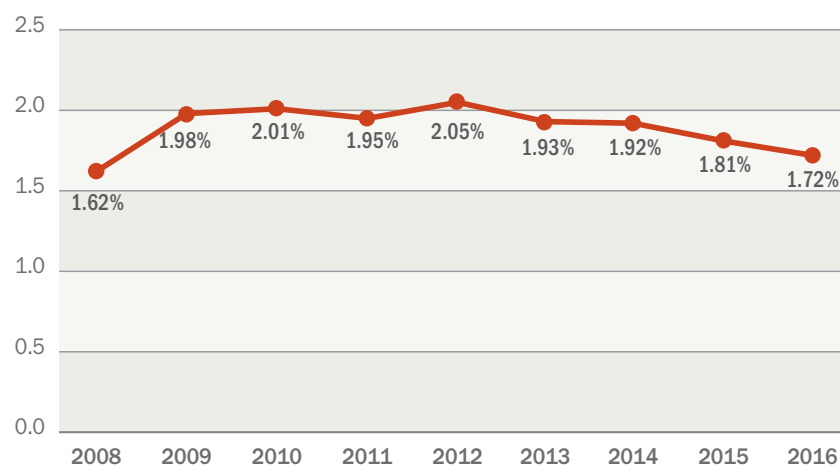
We will continue to develop Ireland as an innovation economy

Innovation 2020 sets out our ambition to be a Global Innovation Leader⁶⁴ and we need to realise this ambition if we are to minimise the impact of any potential downturn and to embed resilience.

Ireland's innovation system is relatively nascent in an international context – but we have made significant strides and have gained international recognition in a number of fields of science. Science Foundation Ireland has funded 17 world-leading Research Centres in areas of national priority. National and international evaluations demonstrate the clear value for money and economic impact derived from investment in R&D by the State and by enterprise. State investment has been proven to 'crowd in' business investment – in Ireland's case, for every €1 of state investment, business expenditure is almost €3 (i.e. one quarter of total R&D investment is made by the State with three quarters made by business). This compares favourably with the EU norm of one third: two thirds⁶⁵. On this measure, Ireland ranks alongside Belgium and Finland, slightly behind Japan and Korea – the highest performing country by a considerable margin is Israel.

We are still a long way from achieving our national ambition in investment in RD&I and investment has not kept pace with the growth of the economy. Gross Expenditure on R&D (GERD) as a percentage of Gross National Product (GNP) is currently at 1.43 percent (2016) a performance that is less than promising if we are to reach our ambition for 2.5 percent by 2020. This statement holds true even if we measure against Gross National Income* (GNI*)⁶⁶ which, at 1.72 percent excludes much of the globalisation effects on Irish economic aggregates (Figure vii). We are now at risk of undermining investments to date and of losing momentum.

Figure vii | Gross expenditure for research and development as a percentage of GNI* 2007-2017



Source: GNI* as per CSO and GERD as per the draft R&D Budget 2016/2017

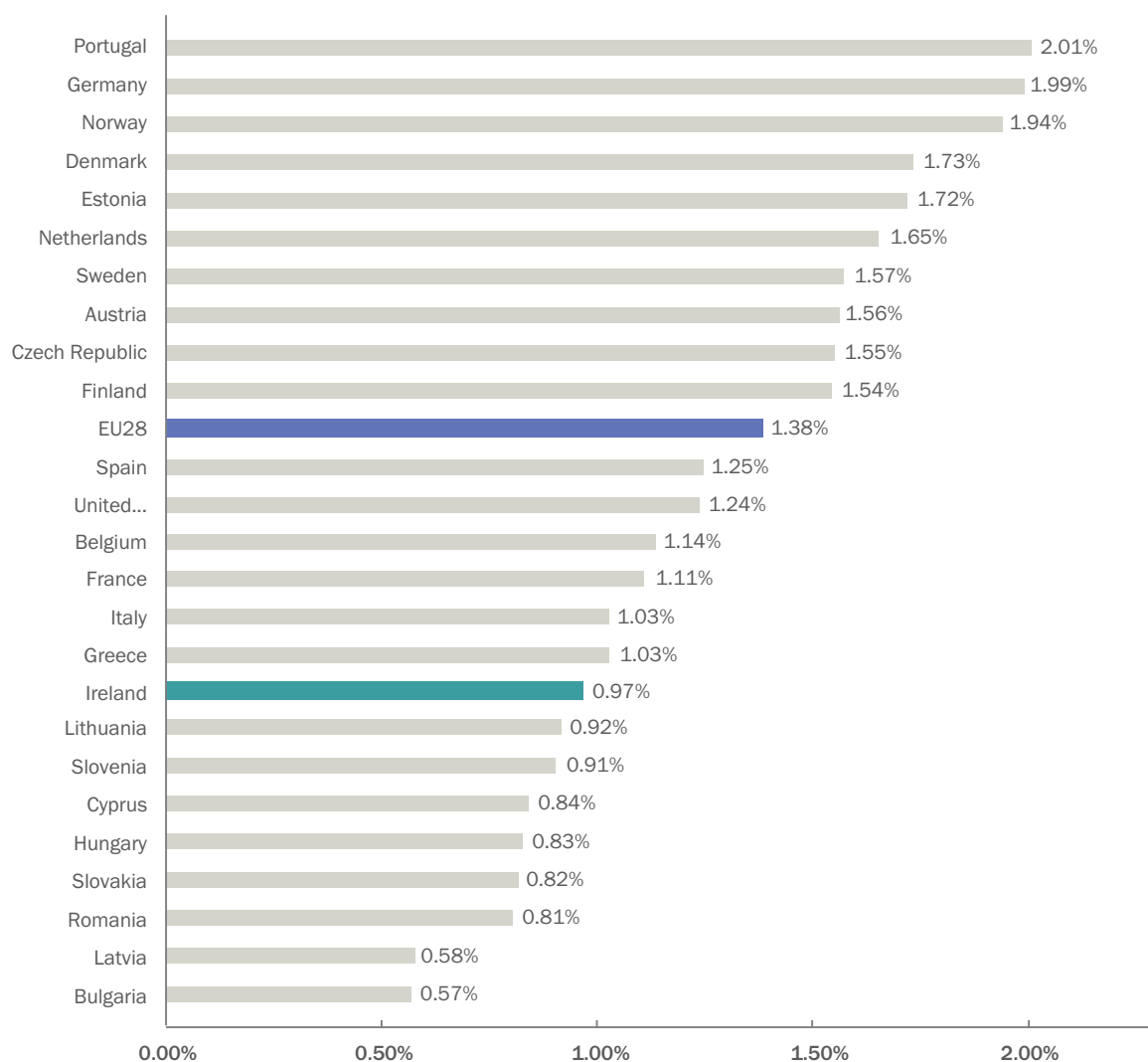
Looking at Ireland's performance internationally, Ireland ranks 16th in the EU and below the EU average for Government Budget Allocations for R&D (GBARD) as a percentage of Total Government Expenditure, which stood at 0.97 percent in 2016 (Figure viii). The EU28 average was 1.38 percent in 2016. Levels of Government R&D expenditure as a percentage of all Government expenditure has remained around one percent over the past six years.

64 *Innovation 2020, Excellence, Talent, Impact, Ireland's Strategy for Research and Development, Science and Technology, DBEI, 2015*

65 Source Eurostat

66 Modified GNI (or GNI*), introduced in 2017, is defined as GNI less the effects of the profits of re-domiciled companies and the depreciation of intellectual property products and aircraft leasing companies

Figure viii | International comparison of GBARD as a percentage of total Government expenditure 2016



Source: Eurostat

Knowledge Transfer Ireland (KTI), established in 2014, supports Technology Transfer Offices (TTOs) in institutions around the country and acts as an accelerator for commercialisation of research. €82 million has been invested by the State over the period 2007-2016 and a further €34.5 million has been recently announced to run from 2017 – 2021. KTI published a revised National IP Protocol in 2016 and revised model collaborative research agreement and associated practical guide. In addition, Intellectual Property awareness raising initiatives have been implemented by the Patents Office together with Enterprise Ireland. As a result of these activities, a step change in technology transfer performance by the Higher Education Institutes (HEIs) has been realised as a result. The number of technologies licensed to industry has increased from 55 per year in 2007 to 164 in 2017, while the number of spinouts created by the HEIs has increased from 13 to 28 in the same period. Ireland is ranked first (out of 23 European countries) in terms of a composite indicator of knowledge transfer performance of public research organisations in individual countries⁶⁷.

67 Knowledge Transfer Study 2010-2012, European Commission, June 2013

Health Innovation Hub Driving innovation through effective collaboration & trialling

A central tenet of **Health Innovation Hub Ireland (HIHI)** strategy is to embed innovative thinking and a bias towards innovation within the healthcare sector

HIHI supports companies with innovative healthcare products by facilitating and managing the trialling and evaluation of these products in clinical settings engaging clinical teams, patients and the extended management teams and, where required, research expertise.

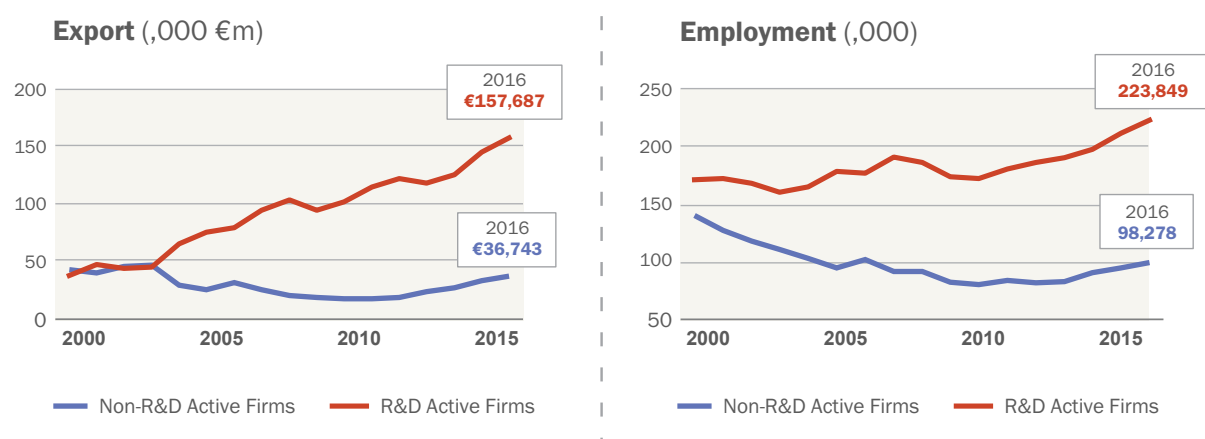
Through the **Innovation Out** activity, HIHI supports the development of new healthcare technologies that address a real clinical need and have the potential to impact jobs and the economy while delivering tangible impact on healthcare. Those best placed to identify unmet clinical needs are those working at the coalface: clinicians, nurses, physiotherapists, orderlies and the extended allied healthcare network.

www.hihi.ie

As set out earlier, the ability to innovate is essential for all enterprises, regardless of sector, nature of activity or scale and regardless of whether exporting or locally trading. As we face ever challenging external forces, we need more of our enterprises investing in RD&I and leveraging our State investments. We need those enterprises that *are* investing in RD&I to continue to do so and to increase their RD&I activities. Enterprises need to develop new products and services that enable them to compete in a range of international markets.

According to ESRI, exporting firms continually adjust product and market mixes and in the long run, the drivers of export growth are expansion of market and product portfolios⁶⁸. We know that innovative enterprises are more resilient – they are more productive, realise greater exports and generate greater employment than non-innovative enterprises (Figure ix).

Figure ix | Exports/employment by agency firms for R&D active and non-R&D active firms 2000-2016



Source: ABSEI

68 <https://www.esri.ie/publications/irish-enterprise-exporting-patterns-in-goods-and-services/>

There is a suite of supports available to stimulate in-firm RD&I, collaboration, commercialisation and Intellectual Property (IP) management in addition to the R&D tax Credit and Knowledge Development Box.

Furthermore, our public-sector bodies can play an even stronger role in providing opportunities for innovative SMEs through the Enterprise Ireland supported Small Business Innovative Research (SBIR) initiative. This involves pre-commercial procurement, through a competitive process, that seeks innovative solutions for specific public sector challenges and needs. Seven SBIR initiatives have been launched to date⁶⁹, giving technology-rich SMEs an ideal opportunity to demonstrate a route to market for their solution.

We will:

- Publish a **refresh of research prioritisation** to ensure our research and innovation system is aligned to our enterprise potential and objectives, so as to sustain and grow knowledge-based employment.
- **Increase state investment in R&D to meet the EU and national objectives** for investment in RD&I and continue to ensure that the majority of competitively awarded state investment is **targeted towards the priority areas** while at the same time, strengthening collaborations between enterprises and our research and technology centres to translate R&D into innovative products and services.
- Aggressively **promote relevant RD&I initiatives to increase enterprise investment in RD&I**, tailored to the needs, scale and capability of the company and as part of a Brexit response plan to develop innovative products, services and solutions and compete on national and international markets.
- Support investment and commercialisation of technologies that **drive improvements in energy efficiencies**, including in renewables, materials and 'smart' manufacturing processes to contribute to achieving our targets to reduce greenhouse gas emissions, using the range of RD&I initiatives available, including supporting in-firm R&D, Innovation Partnerships, Small Business Innovative Research.
- Position Ireland to the **forefront of sector specific standards** (including in relation to medical technologies, chemicals, food and energy) to stimulate innovation, certainty and international reputation; as well as to manage potential consequences arising from Brexit.

DBEI/relevant government departments/SFI/NSAI/IDA/EI/SEAI

We will invest in our people so that Ireland is internationally renowned for its talent and entrepreneurial culture

It is people who innovate, who have ideas, who build networks. Our ability to develop, nurture, retain and attract talent has never been more critical than it is in today's dramatically changing world.

Enterprise 2025 together with *Innovation 2020* and the National Skills Strategy 2025 provide coherent, complementary and mutually reinforcing strategies focused on developing and attracting talent.

Enterprise 2025 set out a broad agenda for talent development, retention and attraction – for new ways of working, for leadership and management development and for enhancing the employment prospects of the unemployed. Considerable strides have been made over the past couple of years. The *National Skills Strategy 2025* was published in January 2016 and aligns with *Enterprise 2025* setting out clear objectives that place a stronger focus on providing skills development opportunities that are relevant to the needs of the economy⁷⁰.

69 <http://www.sbirireland.ie/News-and-Events/News-and-Events.html>

70 In addition to the needs of learners and society

Innovation 2020 commits to supporting the full continuum of talent development to ensure a sufficient quantity and quality of people for the creation and development of research-informed innovative products, processes and services. A National Skills Council (NSC) was established in April 2017 to advise on prioritisation and delivery of identified skills needs. It will have a key role in promoting and reporting on the delivery of responses by education and training providers to those priorities.

To help foster stronger links between employers and the education and training sector, the Department of Education and Skills has established a network of nine Regional Skills Fora and appointed nine Regional Skills Fora Managers. The Fora have been established to align with wider Government policy and initiatives on regional economic development, including the Regional Action Plans for Jobs.

A range of new Apprenticeship programmes, developed by the Apprenticeship Council, have been rolled out in the areas of insurance practice, electrical engineering, accounting technician and international financial services, with further new programmes scheduled to get underway in 2018. A total of 8 new traineeship programmes have been developed and rolled out in 2017 in areas such as hospitality, animation and engineering.

In 2017, SOLAS published a report on Best Practice in Entrepreneurship Education and Training in the Further Education and Training Sector. The Education Training Boards are increasing the overall level of entrepreneurship education and training opportunities within the FET sector involving over 700 beneficiaries in 2017. This is expected to be further increased in 2018.

Positive developments see an increase in funding applications for in-company training which are up by 30 percent from 2017, and Skillnets funding for 2018 has been increased through the National Training Fund. A comprehensive and independent review of the National Training Fund will be undertaken in 2018 to guide strategic decisions on its structure and future direction in order to inform Budget 2019.

Nevertheless, investment in skills development in the workplace remains lower than we would like, based on agency supported data⁷¹. Increasingly companies cite the need for promoting a range of options to the individual that includes apprenticeships as well as tertiary education. Furthermore, SMEs find it challenging to identify what their future skills need might be. Improving the capabilities of our people involves a rolling agenda for action. Right now, we need to focus on the skills needed in a post Brexit era, for internationalisation to non-English-speaking markets, and for an increasingly digitised world [see digital section below]. We will enhance our regional approach so that all individuals, wherever they are living and working in Ireland, and all enterprises, have access to the training and skills that they need.

As we reach full employment, our policies need to focus on how we can increase participation rates and attract talent from around the world to come to work in Ireland. Attracting mobile talent to Ireland in the context of international competition requires an ongoing focus on our migration policies, visa and employment permits regime, our attractiveness as a place in which to live and work, and the competitiveness of our income tax regime.

The Government is committed to reforming the income taxation system to ensure that work pays⁷². The focus is on low and middle income earners aimed at ensuring steady and sustainable progress in reducing the income tax burden in the years ahead. From a competitiveness perspective, we need

71 In-work training for agency supported enterprises was €618 per head (2015) against a target of €1,100 with investment in skills over the past two years slower than required to meet the ambition for 2020. GERD as a percentage of GNP is 1.44 percent (2016) and our national target is 2.5 percent of GNP by 2020

72 Budget 2018 - Economic and Fiscal Outlook (incorporating the Department of Finance's Autumn Finances), October 2017; "the Government will continue to reform the income taxation system in order to ensure that work pays. The Government's approach, which is focussed on low- and middle-income earners, is to ensure steady and sustainable progress in reducing the income tax burden in the years ahead."

also to consider Ireland's income tax for higher income earners within the context of a competitive and equitable tax regime. We are seeing a greater emphasis being placed by companies on the relative competitiveness of Ireland's personal tax regime, particularly for enterprises with multi-country locations (both Irish and foreign owned) in the context of OECD BEPS and the underlying economic substance principle where the location of key decision makers will influence a country's profit allocation.

In the context of Brexit, there are opportunities for Ireland to further develop its international education sector as it will be the only remaining English speaking country in the EU.

We will:

- **Address the likely increased demand for new skills post-Brexit** including customs, logistics, risk management, supply chain management, international selling and foreign technical language capability, based on analysis to identify specific actions needed⁷³.

DBEI

- Engage with enterprise to deliver impactful initiatives that meet the changing needs of business through a **refocused National Training Fund**, taking into consideration delivery throughout the regions of Ireland, to deliver skills-based employment that can support productivity-led wage increases.

DBEI/DES

- Expand reach, engagement and impact of the **regional skills fora**, subject to available resources, to build on progress made to date.

DES

- **Promote alternative education and training options** through secondary schools, work-places etc., to help individuals to make the right choices for themselves and to stimulate continuous learning.

DES

- Take action to **improve labour market participation rates** by extending labour market activation services to other working age groups, reform rules for disability schemes to encourage take up of part-time employment, continue to increase access to quality and affordable childcare⁷⁴ and to make changes in the marginal tax rate⁷⁵.

Relevant Departments

- Review the **economic migration policies underpinning the current employment permits system** to ensure it is fully supportive of Ireland's emerging labour market needs including skills and/or labour shortages in certain sectors. The review will include extensive consultation with public and private sectors and will involve the establishment of an InterDepartmental Group.

DBEI

⁷³ DBEI is currently undertaking relevant analysis to identify a suite of actions needed. The report is due to be completed by the end of Q1 2018. In terms of foreign language capability, this will build on the implementation of Languages Connect, the Department of Education and Skills' strategy for enhancing language competency in Ireland in the decade to 2026

⁷⁴ There is a number of relevant government initiatives and strategies underway: Pathways to Work 2016-2020, A Government strategy devised by the Department of Employment Affairs & Social Protection; Action 7.8. APJ2017, and announced as part of Budget 2017, the Affordable Childcare Scheme providing a streamlined and more user-friendly scheme and supporting increased labour market participation

⁷⁵ The last four budgets have seen changes in the marginal tax rate (being the total of USC, PRSI and Income Tax) for those earning less than €70,044. Budget 2018 implemented an increase to the entry point to the top marginal rate of income tax; The Minister for Finance signalled that this will increase over the coming years to ensure that those earning the average wage no longer have to pay the top marginal rate of tax

- Raise awareness of, and **promote KEEP to SMEs** as an incentive to attract and retain key talent that will drive business growth, innovation and internationalisation; and report on uptake annually to ensure it is administratively simple and achieving objectives.

Enterprise Ireland

- **Implement the Action Plan for Housing**, to include efforts to increase supply of housing for a mobile workforce in areas where there is high demand.

DHPLG

We will position Ireland to the forefront in disruptive technologies – embedding innovation, raising international visibility, driving productivity growth

With 9 out of the top 10 US technology companies and some leading Irish owned technology companies based here, we have the opportunity to position Ireland to the forefront in disruptive technologies.

Enterprise 2025 rightly emphasised the importance of connectedness and digitisation. Reaping the benefits of technological transformation in terms of quality job creation and inclusive growth requires action across a broad range of policy areas, both in the Irish context and internationally.

Our continuing investment in research and technology centres is crucial, aligned with an increased emphasis on skills development both at tertiary level, and within the workplace.

We know that access to high speed broadband infrastructures is critical to realise enterprise opportunities and to ensure that all regions can engage in the digital economy. The development of data centres contributes to Ireland enterprise policy and regional development goals by supporting a wide range of sectors, driving the demand for talent, enabling the innovation at the core of our economic performance, and demonstrating of Ireland's position as an attractive place to invest. We are aware of some associated challenges which need careful consideration and responses in areas such as renewable energy policy and planning/environmental matters.

Digitisation

It is estimated that 10% of workers are in jobs that are at risk of being replaced by machines.

A further 25% of people are in jobs where a high percentage (50-70%) of tasks could be automated.

Skills for a Digital World: 2016 Ministerial Meeting on the Digital Economy, OECD, 2016

According to PWC, the value of skills that can't be replicated by machines is increasing. These include creativity, leadership and emotional intelligence. Demand for data scientists, robotics engineers and other tech specialists is growing. See Sizing the Prize (Artificial Intelligence) November 2017

Ireland's policies will ensure that the workforce is equipped with the requisite skills to fully unlock the benefits of the digital economy.

Pursuing our ambition to be at the fore-front in a technology-rich world involves an extensive rolling agenda of mutually reinforcing policies.

We will:

Develop an ambitious vision and medium term strategy for Ireland's digital economy, led by DoT, DBEI and DCCAIE, that will drive a coordinated, cross government approach to deliver on a range of inter-related policies, encompassing:

- > International and EU developments:
 - > engaging closely with our EU partners in **advancing the Digital Single Market agenda** and ensuring that its emerging regulatory framework strikes an appropriate balance between privacy concerns and the fostering of innovation and growth;
 - > monitoring developments and influencing outcomes relating to **data-flows post Brexit**;
 - > monitoring and influencing OECD and EU developments in relation to **taxation on digital goods and services**.
- > At the business environment level:
 - > setting out a **national policy statement on the strategic importance of data centres** to Ireland's enterprise strategy and the key enablers required to ensure Ireland remains an attractive location for investment;
 - > updating the **ICT Skills Action Plan 2014-2018** to cover the period 2018-2026 to ensure the development of an adequate pool of high level ICT skills in Ireland and our continuing attractiveness to technology investment;
 - > identifying and implementing actions needed to maximise the positive, and/or minimise the negative impact of **digitalisation on job roles**, the workforce and sectors across the economy in Ireland;
 - > ensuring our **employment legislative framework remains fit for purpose** as new ways of working and new forms of employment evolve over the next decade;
 - > **implementing the forthcoming General Data Protection Regulation (GDPR)**, ensuring that SMEs in particular are informed through clear and non-technical communications;
 - > ensuring a **favourable regulatory, IP and data security environment**, and ensuring our regulatory environment remains sufficiently agile in an increasingly disruptive innovative environment to accommodate sectoral development and emerging areas of potential;
 - > remaining **attuned to potential for regulatory divergence post Brexit**;
 - > driving **technology adoption across the public sector** and publishing case-study exemplars on an annual basis to demonstrate value-added, improved customer service, and to stimulate wider business and societal engagement;
 - > facilitating accelerated **investments in broadband through the National Broadband Plan**.
- > At the level of the enterprise:
 - > stimulating **adoption of technologies across the enterprise base**, leveraging expertise within HEIs and public research institutes, and promoting the take-up of incentives such as innovation vouchers, on-line trading vouchers;
 - > stimulating increased **investments in technological RD&I** to develop innovative products, solutions, business models and services;

- leveraging our core strengths in enterprise in ICTs to **capture new areas of opportunity**;
- developing a **digital business action plan** with the objective of realising a step change in enterprise productivity performance and growth.

Government Departments, agencies and bodies acting within the overarching framework

(Note actions for innovation and talent/skills are also directly relevant)

Realising the full potential of our regions

We will support regions throughout Ireland to realise their potential with a focus on Place-making and taking account of Brexit

The ambition set out in *Enterprise 2025* is that unemployment in each NUTs III region will be no more than 1 percent higher than the national average. This objective has been achieved in a number of regions⁷⁶, with the Midlands (at 2.4 percent) and the Midwest (at 1.5 percent) facing the greater challenge. Productivity analysis indicates a divergence in performance between regions⁷⁷.

There are differences in the enterprise structure and occupational profiles of the enterprise base across regions which can explain the differences to some extent.

In addition, although we cannot be definitive, expectations are that Brexit will impact differently on regions throughout Ireland. There are concerns regarding the Border regions as well as for unimpeded daily movements for people and trade more widely.

There is a strong interdependence between the planning, development and creation of an attractive environment and enterprise development. From an enterprise development perspective, investment in the creation of 'place' is key to realising regional potential.

Companies are attracted to invest in locations where they can access skills, where people will want to live and work and where the surrounding infrastructures are supportive of business. Increasingly the trend is toward urban areas of scale and concentrations of economic activity.

The National Planning Framework (NPF) and the aligned National Development Plan 2018-2027 (NDP)⁷⁸, published in February 2018 as Project Ireland 2040, are key instruments to realising the potential of our regions. Informed by ESRI analysis, the NPF projects an increase in population of one million by 2040, with an additional 660,000 in employment⁷⁹.

The ambition sees a focus on developing Ireland's key urban areas as drivers of regional growth, and the development of Metro Area Strategic Plans. Furthermore, the ambition is that 50 percent of population growth will be outside these five metro areas, and that all regions are enabled to leverage their distinctive assets and realise potential. This is a challenging ambition and means that we need to influence the spatial pattern of this demographic growth to achieve the desired outcomes:

- compact smart growth;
- enhanced regional accessibility;
- high quality international connectivity; Sustainable mobility;
- a strong digital economy;

⁷⁶ The South East is within 1.1 percent

⁷⁷ Measured in terms of GVA per person at work (2014) indicates a differential of up to 30% (relative to non-Dublin average)

⁷⁸ National Development Plan 2018-2027, Department of Public Expenditure and Reform, February 2018

⁷⁹ Prospects for Irish Regions and Counties; Scenarios and Implications, ESRI, January 2018

- rural development;
- enhanced urban amenity;
- climate action;
- sustainable management of water and other environmental resources; and
- access to quality childcare, education and health services.

The ambition in the NPF also holds true for employment growth, and for the objectives set out here in Enterprise 2025 for regional employment. The enterprise development agencies have a role to play in contributing to that ambition, by supporting start-ups and scaling of enterprises across the regions and by attracting mobile direct investment.

Unlocking potential of the regions through collaboration

A National Bioeconomy Campus – a new bioeconomy innovation and piloting facility - will be developed at Lisheen, Co Tipperary, supported through Enterprise Ireland’s Regional Enterprise Development Fund. It is an exemplar for rural economic development through collaboration between enterprises and between enterprise and research organisations.

Although not the only factor, accessibility through physical infrastructures, transport networks and services is fundamental to the ambition for employment creation. Investments in higher education and further education and training are crucial, as is the work of the Regional Skills fora, as enterprises are attracted to locations that offer access to a highly skilled workforce. Our investments in SFI Research Centres and Enterprise Ireland Technology Centres and Gateways provide a strong catalyst for collaboration⁸⁰ – and although collaboration extends beyond a region (nationally and internationally) these Centres are significant in terms of regional growth potential. IDA Ireland’s investment in strategic sites have played, and with support under the NDP, will continue to play a key role in matching the needs of large capital intensive projects.

The focus on clustering under this strategy is also pertinent, and our enterprise development agencies will continue to influence and support the development of clusters of scale and international visibility that will deliver economic activity throughout Ireland, in line with the goals of Project Ireland 2040.

Through the NDP 2018-2027, capital investments over the next decade will be aligned to deliver on the strategic outcomes set out in the NPF. This alignment across all government departments demonstrates a commitment to ensure that our regions realise their full potential, that we improve quality of life for our people and to deliver employment growth throughout Ireland that is sustainable.

National policies need to be attuned to regional differences. The renewed focus by DBEI and its agencies on regional development involving the Regional Action Plans for Jobs, the REDF and development of eHubs provide strong ‘bottom up’ catalysts for enterprise development that leverage the assets of the region. Furthermore, the Regional Spatial and Economic Strategies (RSEs) that are due to be completed by the end of this year will give greater effect to Project Ireland 2040, operating within that overarching framework.

⁸⁰ Funding provided through Department of Business, Enterprise and Innovation in line with Enterprise policy and national strategic goals

Concepts such as the Atlantic Economic Corridor (AEC) that aims to create a ‘dynamic ‘city effect of scale’ along the Western seaboard can deliver to our ambition. So too, could the creation of Technology and Innovation Poles provided for under Project Ireland 2040 - NDP 2018-2027 which envisage building facilities, developing the expertise and supportive capabilities of the Institutes of Technology working with Enterprise Ireland and IDA Ireland. This concept sees a role for the Institutes, for example, as a driver of start-ups and scaling enterprises across the regions through inter-institutional connections and impactful collaboration. The Review of Enterprise 2025 highlights the need for such ambition, and for targeted investment to realise a step-change in how we realise the potential of our Irish owned companies.

Effective implementation of Project Ireland 2040 will help deliver to our environmental sustainability ambition, by reducing congestion, excessive travel and journey times to-from work, and increasing urban densities.

It is our ambition to realise greater regional productivity convergence over the next two decades. We need our mutually reinforcing enterprise, innovation, education and spatial policies working in tandem, taking both top down and bottom up approaches, to make this ambition a reality.

We will:

- Prioritise region specific collaborative projects identified in a **Refresh of Regional Action Plans for Jobs** including in rural areas, driven by enterprise champions and public sector partners. The Refresh of Regional Action Plans will also account of region-specific challenges posed by Brexit.

DBEI

- Implement Spotlight on Skills, a **regional SME skills analysis programme** to help SMEs identify their skills needs and then engage effectively with the Regional Skills Fora to address those needs.

Enterprise Ireland

- Deliver **Regional Spatial and Economic Strategies** by end 2018, aligned with the statutorily based Project Ireland 2040, incorporating the National Planning Framework and the National Development Plan 2018-2027 and identify opportunities for increased coordination of investments within and across regions to unlock potential having regard to concepts such as the Atlantic Economic Corridor and the key role that Institutes of Technology can play in a regional context. Ensure that enterprise initiatives including the Regional Enterprise Development Fund play a role in leveraging existing assets of the region, redress structural enterprise issues and stimulate clustering activities.

Regional Assemblies

- Reduce urban sprawl, strengthen inter-modal and efficient transport network through the development and delivery of **Metro Area Strategic plans** for the five cities set out in Project Ireland 2040.

Regional Assemblies

- Give effect to Project Ireland 2040 incorporating the National Planning Framework and the National Development Plan 2018-2027 and Regional Spatial and Economic Strategies through **effective governance and coordinated implementation**, ensuring prioritisation of investments that deliver impact and value for money, taking account of regional development objectives and realities.

DHCLG/DPER

Unlocking potential through connectivity

Enhancing accessibility to the North-West will enhance the competitiveness and attractiveness of areas most exposed to the potential impacts of Brexit.

The overarching objective of the Atlantic Economic Corridor (AEC) initiative is to maximise the infrastructure, talent and enterprise assets along the western seaboard and to combine the economic hubs, clusters and catchments of the area to attract investment, improve competitiveness, support job creation and contribute to an improved quality of life for the people who live there.

The improvement of regional connectivity along the western seaboard, linking together the major urban areas to allow the AEC achieve its potential, is a major priority.

Project Ireland 2040, The National Planning Framework, February 2018 (Case study Northern and Western Region)

Strengthening international relationships

We will strengthen and develop international partnerships and strengthen economic diplomacy in a changed external environment

Ireland will strengthen and develop partnerships and relationships within the EU as we collectively negotiate the UK's withdrawal from the Union and forge an ambitious future for the EU. We will strengthen our relationship with the US and raise Ireland's profile in those countries where we have less visibility and where there is potential to generate substantial economic benefit. Our ambition requires a Team Ireland approach that harnesses the distinctive roles and capabilities of our overseas networks⁸¹.

We will:

- Implement **Ireland's Global Footprint 2025** initiative: deepening our sectoral knowledge and technological capabilities in the process so that we continue to engage with credibility with enterprises, potential buyers and investors in a continuously changing business environment (agencies); strengthening our economic diplomacy capabilities, working in partnership to facilitate market access, increasing Ireland's international visibility, building long-term networks of influence for Ireland and government-to-government relationships (Embassy network); and strengthening the Team Ireland approach to deliver on ambitious targets⁸².
- **Strengthen new relationships and forge new partnerships** with the EU Member States and Institutions, especially with those Member States whose interests are closely aligned with Ireland's.
- **Intensify public diplomacy** in the US and throughout the world to promote Ireland's offering and protect its reputation.
- **Develop political and high-level links in high growth and emerging markets**, aligned, where relevant, with the Asia Pacific and Americas strategies (forthcoming), to secure enhanced market access and create opportunities for our Irish owned enterprises.

⁸¹ In line with the Team Ireland approach set out in Ireland Connected: Trading and Investing in a Dynamic World, DFAT/DBEI, March 2017

⁸² This initiative will complement and give greater effect to Ireland Connected, Trading and Investing in a Dynamic World, DFAT/DBEI, March 2017 to this strategy Enterprise 2025 Renewed and relevant agency strategies

- Increase engagement and **improve connections with our diaspora** and sustain links with international education graduates as a source of skills, start-ups, inward investment and export leads.

- Deliver on our **strategic communications strategy to substantially raise Ireland's visibility** throughout the world, tailored to different audiences while ensuring clarity and consistency in our messaging.

- Optimise Ireland's **participation in the EU's Research and Innovation Framework Programmes** (Horizon 2020 and its successor) to enable Irish enterprise and Research Performing Organisations (RPOs)⁸³ collaborate and innovate with their European and global peers.

Whole of Government and relevant agencies/embassy network

An agile Government and effective implementation

We will embed agility into how we work as a government and ensure effective and timely implementation of actions

Our government system needs to be anticipatory, agile and responsive – and that continues to be our objective.

We cannot predict the future... but we can prepare for known changes, and respond quickly to the unknowns... we can take action now that creates the conditions for longer term sustainable growth.

The level of uncertainty in relation to policies being introduced by our main trading partners makes it difficult to determine future growth trajectories. On the one hand, a continuing growth pattern along current trends will likely exacerbate already evident capacity constraints in areas such as infrastructures, housing and skills supply. At the same time, we need to be prepared for the potential negative impacts of a hard Brexit on exports and foreign earnings and/or reduced FDI projects that could result in a downward trend.

The objective is to ensure that a dip in enterprise performance (if any) is minimised and short – such that our medium-term potential can be fully realised.

It is likely that a number of policy priorities will hold true, *regardless of how the future unfolds*. Examples include innovation, competitiveness, skills and broader business environment factors such as regulation, access to finance and tax.

The ambition set out in *Enterprise 2025* is for our *government system to be anticipatory, responsive and adaptive – demonstrating an enviable agility that can be more easily embedded in a small country such as Ireland*. This ambition has taken on a greater meaning today, and a cross-government focus on job creation has already been established through the Action Plan for Jobs process.

We remain ambitious, but realistic in our projections. It is now about *how* we implement our policies... and deepen levels of preparedness

We will:

- Develop an annual progress report, that will be considered by Cabinet and feed into the National Risk Register and inform policy action and/or new risk mitigation measures.

DBEI

83 RPOs include Higher Education Institutes and Public Research Organisations

Measuring success – deepening resilience

All metrics set out in *Enterprise 2025* have been reviewed based on performance to date and in the context of significant global challenges that have emerged since its publication.

In some instances, the original potential envisaged by 2020 remains unchanged, based on analysis by the relevant agencies, and an assessment of potential risks and impacts over the coming years.

Framework for monitoring: mutually reinforcing and complementary aspects to deepen resilience

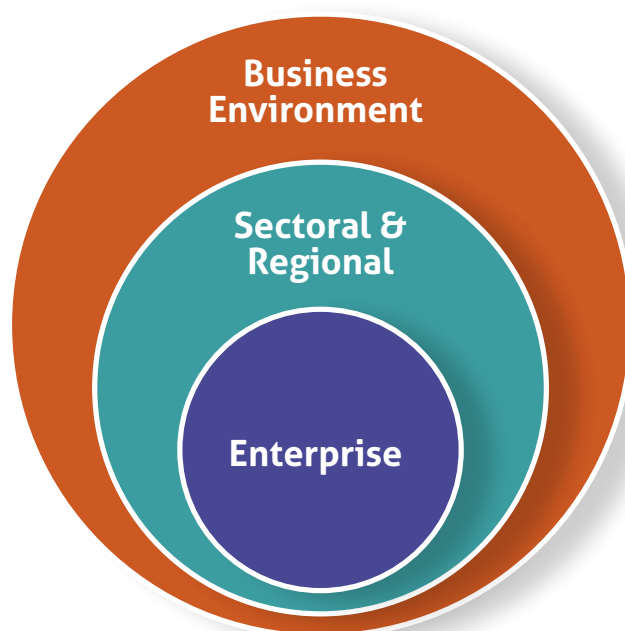


Table 1 - Outcomes, employment & quality of life

Overarching National Outcomes	Metric	Current Performance	Potential by 2020
Employment			
At least 2.3 million people in sustainable employment	Total employment	2.2 million ⁸⁴	2.3 million
Maintain greater than 71% of 20 to 64 year olds in employment by 2020	Employment rate 20-64 year olds (Eurostat)	71.4%	73.0%
Living Standards			
Maintain living at an above average position relative to the Eurozone 19 ⁸⁵ .	GNI per capita in Purchasing Power Standards relative to Eurozone 19	133 <i>Monitor performance to 2020</i>	

84 CSO Labour Force Survey Quarter 3 2017

85 Monitoring indicator, no target set; Eurostat data

Table 2 - Business environment

Outcome	Metric	Current Performance	Potential by 2020
Competitiveness			
Rank in top 5 most competitive small countries in the world ⁸⁶	World Bank Doing Business ranking	6th small countries ⁸⁷	1-5
Sustaining the profitability of Irish Firms Economy wide	Gross operating surplus as % of turnover	9.9%	10.0%
Innovation			
Increased Investment in RD&I	GERD as a percentage of GNP	1.44%	2.5%
Innovative Culture: SMEs introducing product or process innovations	As % of all SMEs	45%	50%
Talent			
Highly skilled workforce	Tertiary education attainment 30-34 year olds	52.9%	60%
Apprenticeships and Traineeships	Apprenticeship and traineeship places.	10,445 apprentices 4,151 trainees	31,000 19,000
Life Long Learning [EU Target 15%]	Participation of adults aged 25-64 in Life Long Learning (Eurostat)	6.4%	10% ⁸⁸
Productivity			
Productivity in Irish owned companies	GVA per person engaged Eurostat	Ireland, €52,700 UK €55,000 & Germany €52,200,	Monitoring to 2020 - equivalent to UK & Germany
Total Economy Productivity	Output per hour worked, total economy, percentage change at annual rate ⁸⁹	2.3% Ireland first in EU 2015	Monitor and Sustain an EU top 5 position to 2020

86 Based on high income countries (as designated by the World Bank) with a population within +/-20% of the population of Ireland.

87 New Zealand (1), Singapore (2), Denmark (3), Norway (4), Finland (5), Ireland (6)

88 National Skills Strategy 10% by 2020, 15% 2024

89 Sectors contribute variously to total economy productivity performance. Monitoring of the total economy performance should be accompanied by analysis at a sectoral level. These numbers are based on GDP, which tends to overstate the position

Outcome	Metric	Current Performance	Potential by 2020
Export led growth			
Growth in indigenous exports	EI Client Exports	€21.6 bn	€26 bn
Export led growth ⁷	% Share World Trade Manufacturing	0.80%, 33 rd world ranking, 2016	
Export led growth ⁸	% Share World Trade Services	3.04%, 10 th world ranking, 2016	

Table 3 - Regional development

Outcome	Metric	Current Performance	Potential by 2020
Employment			
Regional unemployment rates will not be higher than 1 percentage point above national unemployment rate	Regional unemployment	<1% with exception of Midland, 2.4%; Mid-West 1.5%; and the South East 1.1%	<1% all regions

Table 4 - Enterprise development

Outcome	Metric	Current Performance	Potential by 2020
Sustainable enterprise			
Increase no. of start-ups	No. of enterprise births per annum	18,100	18,848
Survival rate of start-ups (5 years) economy-wide	Increase no. of enterprises surviving to 5 years by 25%	9,331	12,495
Growth in High Potential Start-up rate supported by EI – focus on quality and performance	HPSUs supported	91 (2017)	90 per annum
Increase percentage of HPSUs achieving 3 year ambition of at least €1 million in sales [uplift of c 45% on 2016]	HPSU performance	23% (2016)	33%

90 Monitoring indicator, no target set, % Share World Trade Manufacturing 0.61%, 36th world ranking 2013

91 Monitoring indicator, no target set, % Share World Trade Services 2.70% 11th world ranking, 2013

Outcome	Metric	Current Performance	Potential by 2020
Increase in scaling activity	EI Firms >€3m sales out of Ireland	1,003	1,100
	EI Firms > €20m sales out of Ireland	272	300
	EI Firms >€100m sales out of Ireland	64	90
Increase FDI investments	FDI investments 1,080 IDA supported investments over the period 2015-2020 IDA Target of 900 by 2019 extrapolated	694 (2015-2017)	1080
Diversification of FDI markets	No. of investments from non-US markets	227 (2010-2014)	Increase by 50% (2015-2020)
Export growth & diversification			
Increase Irish-owned export intensity	Irish owned exports as % of sales	52%	55%-60%
Broadening base of Indigenous exports	EI Client exports beyond UK markets	€14.1bn	€17.4bn
Broadening base of Indigenous exports	EI Client exports to Eurozone	€4.2 bn (2015)	€6.3 bn 50% increase on 2015
Employment			
Increase EI supported employment	Agency client base total employment	209,338	225,000 ⁹²
Increase IDA supported employment	Agency client base total employment	210,443	225,000 ⁹³
Innovation			
RDI active firms	No. of EI R&D Active Firms >€100k	937	1000
RDI active firms of scale	No. of EI R&D Active Firms >€1m	134	220
FDI R&D investment	Cumulative in RDI investment by 2020	€3.3 bn	€3.6 bn
Increase in Foreign Owned RDI active firms	FDI RDI active companies	431	475 ⁹⁴

92 Estimated, derived from the current ambition for employment growth as set out in Enterprise Ireland Strategy 2017-2020. The ability to achieve this potential will be significantly influenced by the extent of the economic impact arising from Brexit

93 Winning: Foreign Direct Investment 2015-2019 target was extrapolated to 2020 in Enterprise 2025. Adjustments have been made in discussion with IDA Ireland, having regard to substantial international developments, the precise impacts of which are yet unknown

94 Winning: Foreign Direct Investment 2015-2019 target extrapolated to 2020

Outcome	Metric	Current Performance	Potential by 2020
Connectedness			
Increase enterprise – public research organisation (PRO) collaboration	No. collaborations	EI ⁹⁵ 1,065 SFI ⁹⁶ 1,941	EI 1,200 SFI 2,600
Increase in Direct Economy Expenditure by 25 percent between 2013 and 2020 (Irish materials and services)	ABSEI DEE	€25 bn	€28.6 bn
Innovative (SMEs) collaborating with others (technological cooperation)	Innovative SMEs collaborating as a percentage of SMEs	31%	45%
Talent and skills development			
Investment in training for employees (double over period 2014-2020)	Expenditure on training per employee per annum in Agency supported firms	€618	€1,100

Table 5 - Monitoring indicators

Indicator	Metric	Current Performance	Monitoring indicator
Sustainable Employment Growth			
Employment in domestic sectors	Monitoring Indicator: Proportion of the labour force employed in the seven sectors that comprise the 'domestic' component of the economy ⁹⁷	48%	The proportion of 'domestic' employment remain below 50%
Gap between employment in domestic & exporting activity	Difference between the proportion of the labour force employed in domestic sector activity and the proportion employed in exporting activity ⁹⁸ (% point differential)	30%	Gap between employment in domestic & exporting activity remain below 32%

95 Includes funded projects that have been supported by Enterprise Ireland including Innovation Partnerships Approved + Technology Gateway Projects Completed + Innovation Vouchers Redeemed. Note that this likely underestimates the extent of collaboration, not all of which involves funding

96 Includes all collaborations, Irish & Foreign owned companies, National and International

97 Including construction, wholesale and retail, transport and storage, accommodation and food services, professional, scientific, technical, administrative and support services, and other services, QNHS

98 For the purposes of this particular analysis, exporting activity employment is estimated using the CSO QNHS data, specifically NACE codes B-E (Industry) and J (Information and communication), and data from DJEI's Annual Employment Survey (Internationally Traded Services)



Appendices

Appendix I

Review of Enterprise 2025 process

Background

The review of *Enterprise 2025*, Ireland's national enterprise strategy was undertaken in the context of recent global changes that are likely to have an impact on Ireland's enterprise development. The focus was on those areas where change is most apparent since *Enterprise 2025* was published. These include Brexit, potential policy changes under the new US administration, developments in international/EU taxation and the pace of technological change.

Objective

The objective of the Review is to reassess priorities, ensure continued focus and identify additional strategic actions required.

A Senior Officials Group was set up with representatives from within DBEI, the agencies and from relevant Government Departments (including Taoiseach's, DoF, DPER, DAFM, DFAT, DTTAS and DRCD (when established)).

Process

To inform the review:

- an update of the global trends analysis completed during the development of *Enterprise 2025* was undertaken to identify potential implications arising from most recent changes;
- a review of progress against 56 individual actions was completed – the majority of which are underway, with a small number less advanced than desired. This included progress relating to RD&I, bioeconomy strategy, doubling investment in workplace learning and the broad digital agenda;
- a review of progress against 30 metrics was undertaken that showed solid progress is being made except for RD&I investments (both State and firm level), investment by firms in training, and sustaining competitiveness;
- a comprehensive review of enterprise performance was undertaken, looking over the past decade in order to get behind the metrics;
- a short discussion document was produced to focus consultations with stakeholders including IBEC, Heads of Industry Associations, Irish Exporters Association member companies, British/Irish Chamber of Commerce and the American Chamber of Commerce which were completed week ending 3rd November;
- a detailed review of metrics was undertaken and updated as required to set a clear ambition for 2020 and to ensure that our economic resilience can be monitored on an on-going basis.

The Terms of Reference, scope and progress updates were discussed at the Senior Officials Group (Economy) and at the Cabinet Committee for Economy.

The Review was led by the Strategic Policy Division, Department of Business, Enterprise and Innovation.

Appendix II

Enterprise 2025 – areas for action

Enterprise 2025 is a whole of enterprise strategy – encompassing all sectors and activities in the economy, and across all regions of Ireland. The actions to achieve sustainable full employment need to be delivered not only by the enterprise development agencies, but also by a number of Government Departments who have a role to play in ensuring we have a supportive and internationally differentiated business environment.

Enterprise 2025 set out action in three main areas:

One, at firm and sectoral level: realising a step change in enterprise productivity, innovation and trade performance, both at the level of the firm and in terms broadening the sectoral mix.

Two, to differentiate Ireland on the international stage:

- > talent/skills – our people are our key asset – involves developing, retaining and attracting talent;
- > attractive places to invest, live and work throughout Ireland (place-making);
- > innovation which will be at the core of our economic performance;
- > Being connected through trade, business, research and technology.

Three, the business environment – excelling at the basics in Ireland's business supportive environment

- > access to finance;
- > a competitive taxation regime;
- > world class infrastructures;
- > Cost competitiveness.

Actions from *Enterprise 2025* that are underway and remain relevant to Ireland's enterprise policy, but have not been reiterated within the main body of this Review. They are listed overleaf for completeness

Nevertheless, this Review has served to reinforce that the fundamentals of our enterprise policy remain sound.

Enterprise policy is a rolling agenda, and requires a continuous assessment of action to be undertaken on an annual basis.

Build Resilience

Across a range of Sectors
Pursue new opportunities
Build supportive ecosystems
Drive a step change in enterprise performance

Differentiate what Ireland has to offer

Talent
Place-making
Innovativeness
Connectedness

Excel at getting the basics right

Finance for Growth
Taxation
Cost competitiveness
Infrastructures

Appendix III

A strengthened approach to sectoral ecosystem development

Extract from Enterprise 2025 Background Report (pg. 193)

The intensified global competitive environment and pace of change means that a location's attractiveness for investment and business growth is strengthened when a Government demonstrates an understanding of the current and future ecosystem needs of sectors and the capacity to anticipate and respond. The more we identify/understand sector specific ecosystem aspects and take the necessary action to accelerate growth (or remove barriers) – the more likely it is that the full potential of a sector will be realised to deliver jobs & economic impact.

There will be certain circumstances which warrant an intensive or elevated sector specific response from across Government at a point in time. The proposed approach aims to embed strengthened operating principles through the establishment of Ecosystem Development Teams (EDTs). Determining which sectors, activities or emerging market opportunities are of strategic significance and require an elevated policy response will not be an exact science. The possible motivation for initiating an elevated policy response would fall into one or more of three categories as follows:

- scale of the opportunity – where there is substantial untapped potential that could be harnessed by enterprise in Ireland. A strategic case would need to be established and would incorporate a range of empirical metrics; for example: potential contribution to Gross Value Added (GVA) and employment and the potential scale of the export market; a significant output multiplier effect or wider spillover effects;
- an impending upheaval – from time to time, major exogenous shocks occur which can have a material impact on business conditions within a sector. Appropriate metrics in terms of potential impact may also need to be examined;
- a national imperative – where there is a need for concerted and decisive action where the future health of a sector will have wider systemic consequences. Examples of this include the construction or energy sectors, where continued health of the sector is required for social and macroeconomic reasons and not simply the sector's own development and direct economic contribution.

It is anticipated that an EDT would be limited in size, have strong leadership, include high level Government, industry and research community representation, with a clearly scoped Terms of Reference, would engage in structured consultation, have a sunset clause and be adequately resourced with a small core team involving a senior level 'business development manager'⁹⁹. It is intended that the number of EDTs in operation at any one time would be limited and set on a rolling basis so as to ensure a rhythm of critical questioning¹⁰⁰.

The proposed establishment of EDTs is not intended to replace or supplant the ongoing activities of enterprise development agencies and/or other government departments. It is however, intended to take a more structured approach to the establishment of such Teams, and to ensure effective use of constrained resources. Rather than spreading resources thinly to support many groups, this proposal allows for more limited, concerted and impactful engagement on a rolling basis.

99 Examples of such approaches include the Top Teams approach in the Netherlands and the Matrix approach in Northern Ireland

100 Mirroring the international experience in the Netherlands and if we are to avoid a 'group surge' drawing on State resources

Appendix IV

List of abbreviations

DAFM	Department of Agriculture Food and Marine
DBEI	Department of Business, Enterprise and Innovation
DCCAE	Department of Communications, Climate Action and Environment
DES	Department of Education and Skills
DFAT	Department of Foreign Affairs and Trade
DJE	Department of Justice and Equality
DHPLG	Department of Housing, Planning and Local Government
DoF	Department of Finance
DoT	Department of the Taoiseach
DPER	Department of Public Expenditure and Reform
DTTS	Department of Transport, Tourism and Sport
ABSEI	Annual Business Survey of Economic Impact
AEC	Atlantic Economic Corridor
AES	Annual Employment Survey
AI	Artificial Intelligence
ATAD	Anti-Tax Avoidance Directive
BERD	Business Expenditure on Research and Development
BEPS	Base Erosion and Profit Shifting
CCCTB	Common Consolidated Corporate Tax Base
CSO	Central Statistics Office
CSR	Corporate Social Responsibility
DSM	Digital Single Market
EDT	Economic Development Team
EI	Enterprise Ireland
ESRI	Economic Social and Research Institute
FDI	Foreign Direct Investment
GBARD	Government Budget Allocation on Research and Development
GDP	Gross Domestic Product
GDPR	General Data Protection Regulations
GERD	Gross Expenditure on Research and Development
GNI	Gross National Income
GNP	Gross National Product
GVA	Gross Value Added
FET	Further Education and Training

HEI	Higher Education Institution
HIHI	Health Innovation Hub Ireland
ICT	Information and Communication Technology
IDA	Industrial Development Agency
IoT	Internet of Things
IP	Intellectual Property
ITI	Inter Trade Ireland
KEEP	Key Employee Engagement Programme
LEO	Local Enterprise Office
LFS	Labour Force Survey
NACE	Nomenclature generale des Activites economiques dans les Communautés Europeennes
NAFTA	North American Free Trade Agreement
NCC	National Competitiveness Council
NDP	National Development Plan
NSAI	National Standards Authority of Ireland
NSC	National Skills Council
OECD	Organisation for Economic Co-operation and Development
RD&I	Research Development and Innovation
R&D	Research and Development
REDF	Regional Enterprise Development Fund
RSES	Regional Spatial and Economic Strategy
SBCI	Strategic Banking Corporation of Ireland
SBIR	Small Business Innovative Research
SEAI	Sustainable Energy Authority of Ireland
SFI	Science Foundation Ireland
SME	Small and Medium Enterprise
TPP	Trans Pacific Partnership
ÚnaG	Údarás Na Gaeltachta
USTR	United States Trade Representative

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