



Ireland's Innovation Index 2023.



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01. Executive Summary



Research and Innovation are key drivers of economic progress and are fundamental to addressing economic and social challenges including climate change, digitalisation and public health. Strengthening and deepening Research, Development, and Innovation (RDI) capacity is essential to ensure the continued prosperity of Ireland's innovation economy. As the global economy becomes increasingly competitive, marked by rapid technological advancements, talent shortages, and evolving consumer preferences, the pathways to growth have become more challenging than ever before.

In this context IRDG and KPMG carried out a survey on attitudes to Research and Innovation in Ireland, how Ireland compares to other countries, and what improvements can be made to maintain and enhance our performance.

Almost 400 survey responses were received, split 64% between Irish owned/36% foreign owned business. The responses were spread across multiple sectors with the largest categories being Engineering/Technology (18%), Business Software (ICT/Cloud/SaaS) (17%), Medical Health/Wellbeing/Devices (15%), Manufacturing (14%) Pharma (7%) Food& Drink (6%).

The Key Takeaways Can Be Summarised As:



1. Over the last 3 years, 67% of businesses conducting RDI in Ireland increased their overall Research and Innovation spend and 80% of businesses expect to increase their RDI investment over the next 3 years. Only 4% of businesses don't expect their expenditure to increase over this period.
2. Lack of budget and difficulty recruiting key talent (identified by 48% and 46% of respondents respectively) are the biggest factors impacting companies' ability to innovate.
3. Admin time related to grant drawdowns (46% of respondents) and the grant application process (39%) were identified as the biggest barriers stopping companies from applying for supports.
4. 58% of companies have between 1 and 10 people directly involved in RDI in Ireland, 25% have 11-50 and 17% have 51 or more employees directly involved in RDI.
5. 64% of respondents indicated that state funding supports allowed them to conduct more R&D and 52% noted that the funding supported more employment.
6. 69% of respondents feel that Ireland's R&D grant and tax credit supports compare equally or favourably to other countries. 31% feel that the Irish system compares negatively to other jurisdictions.
7. 58% of multi national corporations (MNCs) responded that less than half of their R&D would take place in Ireland without the R&D Tax Credit.
8. According to survey respondents, the main factors Ireland needs to look at to remain competitive in the evolving international landscape are; simplifying the claims process/reducing admin work (29%), increasing funding amounts/expanding eligibility criteria (15%), and improving access for Small and Medium Enterprises (SMEs) (9%).
9. In relation to improving supports for SMEs conducting RDI, 35% of SMEs feel that increasing grants/funding, 21% indicated that making the application/claims process easier and 13% feel that increasing education/training will significantly improve supports for SMEs.
10. 41% of companies are engaged in incremental innovation (Extension of products/services with existing customers), 34% engage in breakthrough innovation (Breakthrough product market changing products/services) and 24% engage in disruptive innovation (Technology or new business model that disrupts the existing market).
11. 67% responded that developing new areas of business and new models is one of their key priorities.
12. 78% of respondents stated that they think a R&D Tax Credit of 50% would incentivise increased R&D of Green and Sustainable Technologies.



02. Introduction



Research and Innovation are key drivers of economic progress. Research and Innovation will be fundamental to addressing our economic and social challenges such as climate change, digitalisation and public health. Strengthening and deepening the Research, Development, and Innovation (RDI) capacity of business is essential if Ireland is to continue expanding our innovation economy. In the context of changing economic climate and the development of global minimum tax agreements strong and effective Innovation policy and practice will be an important pillar of economic development and progress.

Business investment in RDI takes place in a national and international context. Over 25 years, Ireland has gone from a base of 800 R&D active firms, with a research spend of €300 million, to almost 1,800 RDI active enterprises spending of €3.47bn in 2021. In that year, Ireland had the highest proportion of business RDI in Europe, with 75% of our total investment being performed in private enterprises (CSO, 2021).

An increasingly competitive global economy, characterised by rapid technological progress, talent shortages, and changing consumer preferences, means the pathways to growth have become ever more challenging. Businesses around the world are increasing their knowledge investments which is changing the global RDI landscape. The KPMG and IRDG survey indicated that 80% of companies expect an increase in R&D expenditure in next 3 years. Of those, spend on personnel was anticipated by 89%.

The rapid pace of change means companies are continually recruiting new talent and skills to support their business objectives. As they explore opportunities to stay ahead of competition, keep up with sophisticated consumer demands, develop novel products, processes and services or enhance existing ones, Irish companies are upskilling and expanding their teams with the talent they need to take their businesses forward.

As Ireland navigates the ever-evolving landscape of innovation, it is crucial to recognise the

interconnectedness of research, development, and innovation. Research serves as the foundation for generating new knowledge, while development involves transforming that knowledge into tangible applications and solutions. Innovation focuses on the successful implementation and commercialisation of these solutions, driving economic growth and societal progress.

The Innovation Index survey on attitudes towards RDI in Ireland provides valuable insights into the current state of RDI activities within the country. By gathering feedback from 394 companies engaged in Research and Innovation, the survey offers a comprehensive overview of the challenges, opportunities, and areas for improvement. Such information supports the development of evidence-based policies and strategies to strengthen Ireland's innovation ecosystem and enhance its RDI position.

The survey sheds light on how Ireland compares to other countries in terms of Research and Innovation investment and support, allowing for benchmarking. This comparative analysis is essential for Ireland to continuously enhance its performance and foster a favourable environment that encourages and supports RDI activities across various sectors. By leveraging these findings, policymakers, industry leaders, and other stakeholders can collaboratively shape a vibrant RDI landscape that will drive Ireland's economic progress while addressing critical societal challenges.



03. Innovation Index Results

3.1 Respondent Profiles

In April/May 2023, we carried out a survey of companies actively engaged in Research Development and Innovation (RDI) across Ireland. We received responses from 394 companies from large multinationals to High Potential Start-ups on their attitudes to the Research and Innovation landscape in Ireland.

The respondents included both foreign owned multinational companies operating in Ireland (36%) and Irish-owned businesses (64%) across a diverse set of industry sectors with the largest categories being Engineering/Technology (18%), Business Software (ICT/Cloud/SaaS) (17%), Medical Health/Wellbeing/Devices (15%), Manufacturing (14%) Pharma (7%) Food& Drink (6%).

FIG. 1: RESPONDENTS BY COMPANY SIZE

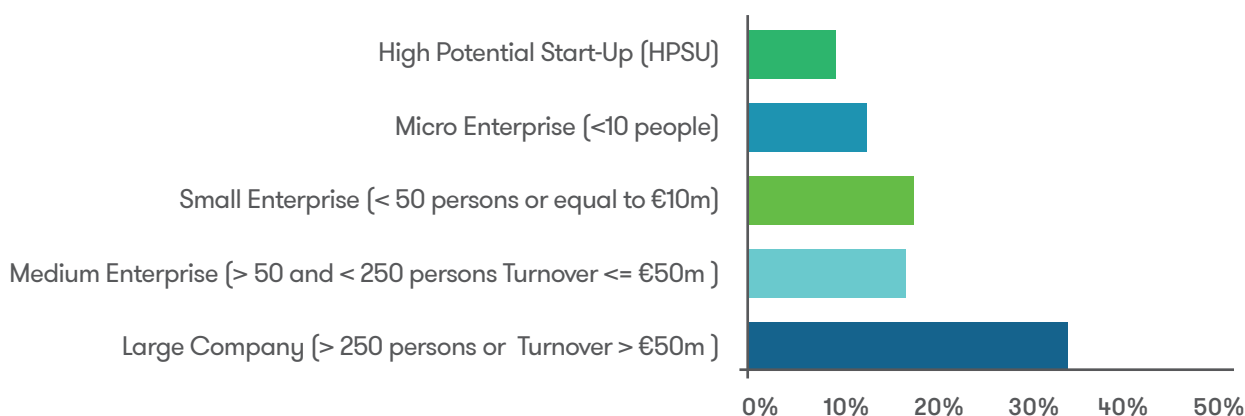
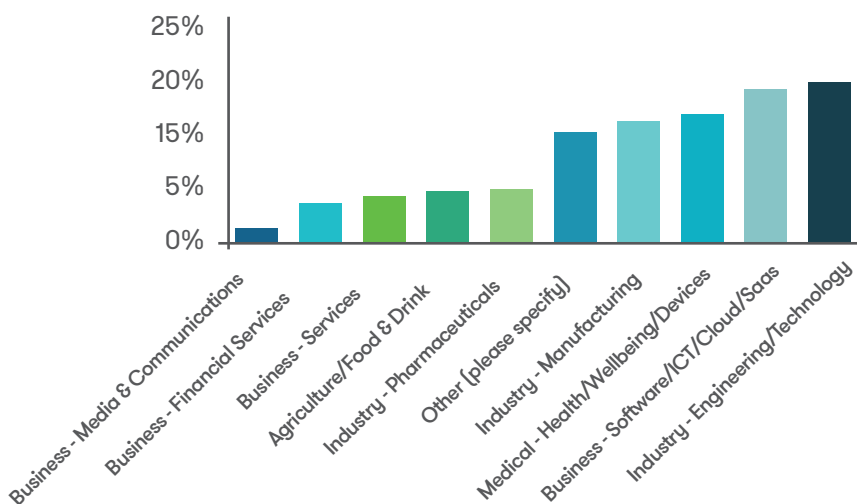


FIG. 2: RESPONDENTS BY SECTOR



RDI in Ireland

The figures below show the breakdown of how many full-time equivalent employees (FTE) are working within the surveyed companies and also how many of these employees are directly involved in Research, Development and Innovation in Ireland. The data shows that 57% have between 1 and 10 people, 25% have 11-50 and 17% have 51 or more employees directly involved in RDI.

FIG. 3: NUMBER OF FTE (FULL TIME EQUIVALENTS) EMPLOYED IN IRELAND

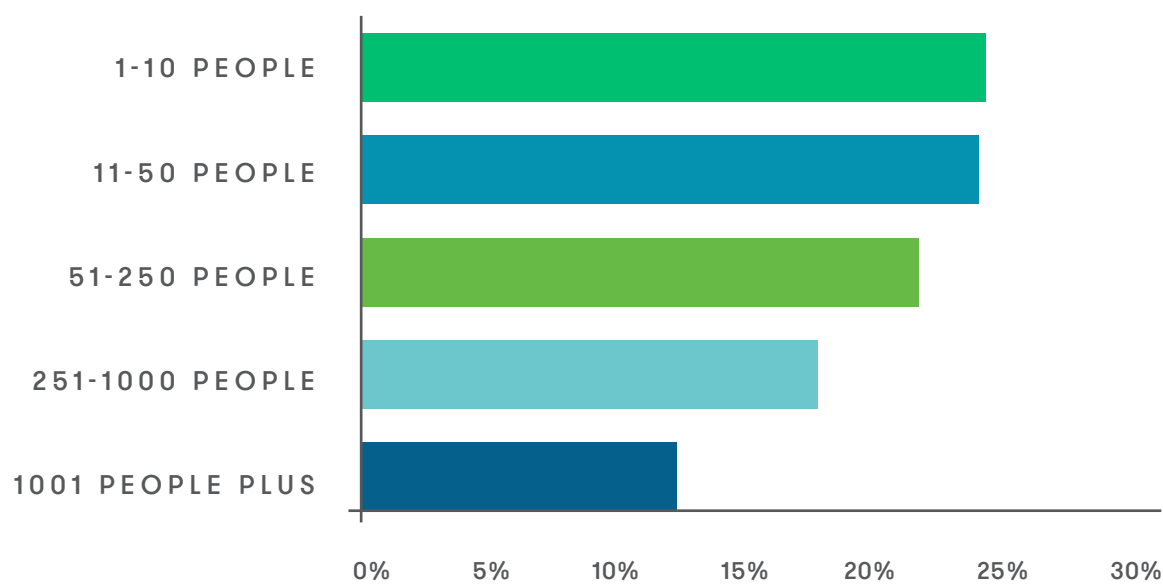
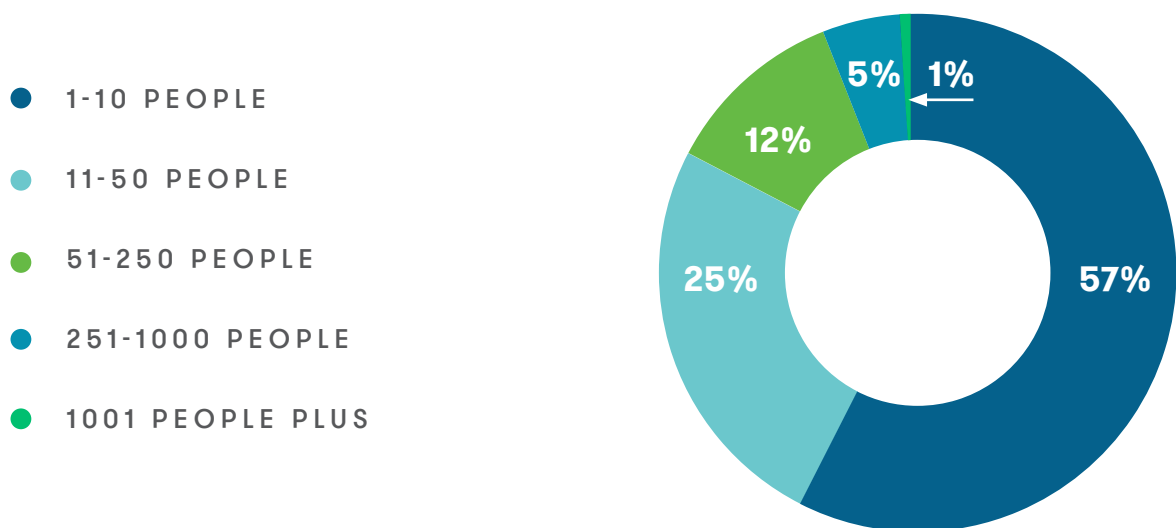


FIG. 4: NUMBER OF FTE (FULL TIME EQUIVALENTS) DIRECTLY ENGAGED IN RDI IN IRELAND



3.2 Innovation Activity & Barriers

76% of businesses have a dedicated structure to drive RDI indicating the importance of RDI to the business. Product innovation is the focus of Irish innovation, as cited by 84% of respondents. Specifically, improving existing products and services over the next 1 to 3 years is a key priority for 77%. Business model innovation is the least likely type of RDI to be focussed on.

In relation to the type of change that company RDI activities are generating, incremental change is the most popular at 73%. This is followed by breakthrough change at 60% and disruptive change at 43%.

FIG. 5: PRESENCE OF DEDICATED STRUCTURE DRIVING RDI IN THE BUSINESS

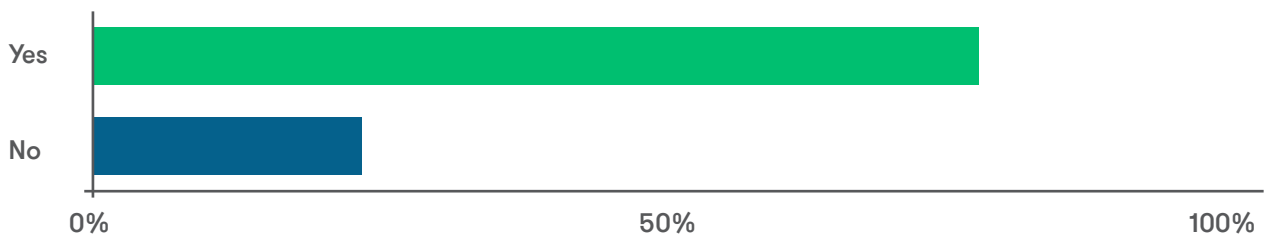


FIG. 6: SPECIFIC RDI PRIORITIES FOR NEXT 1-3 YEARS

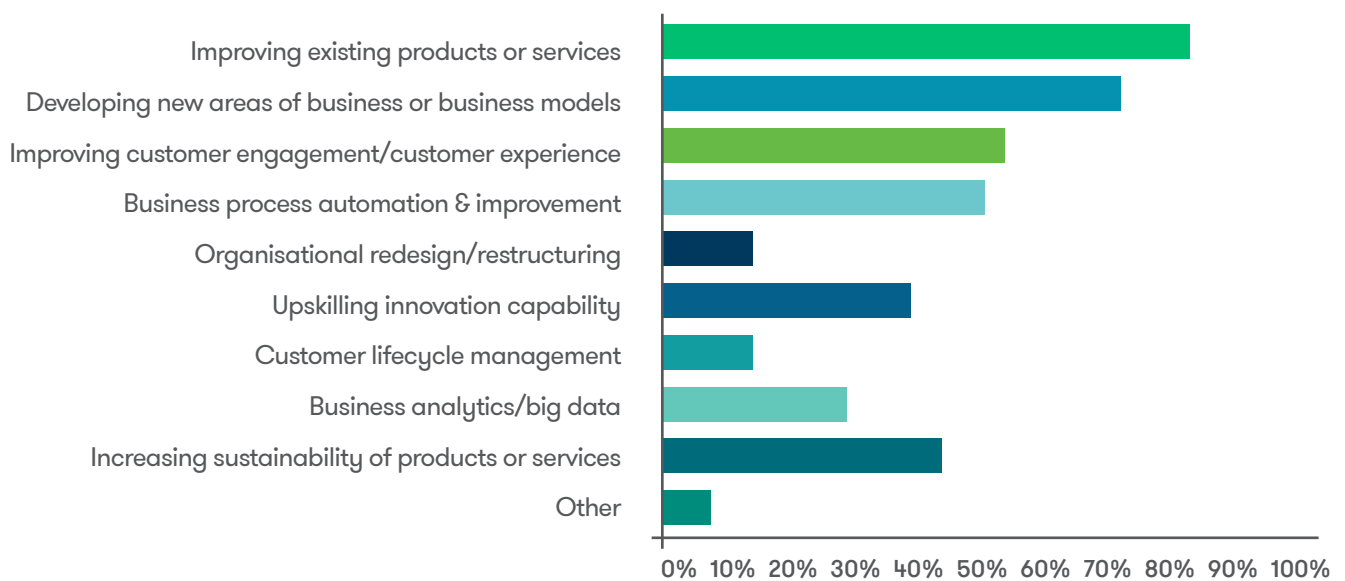
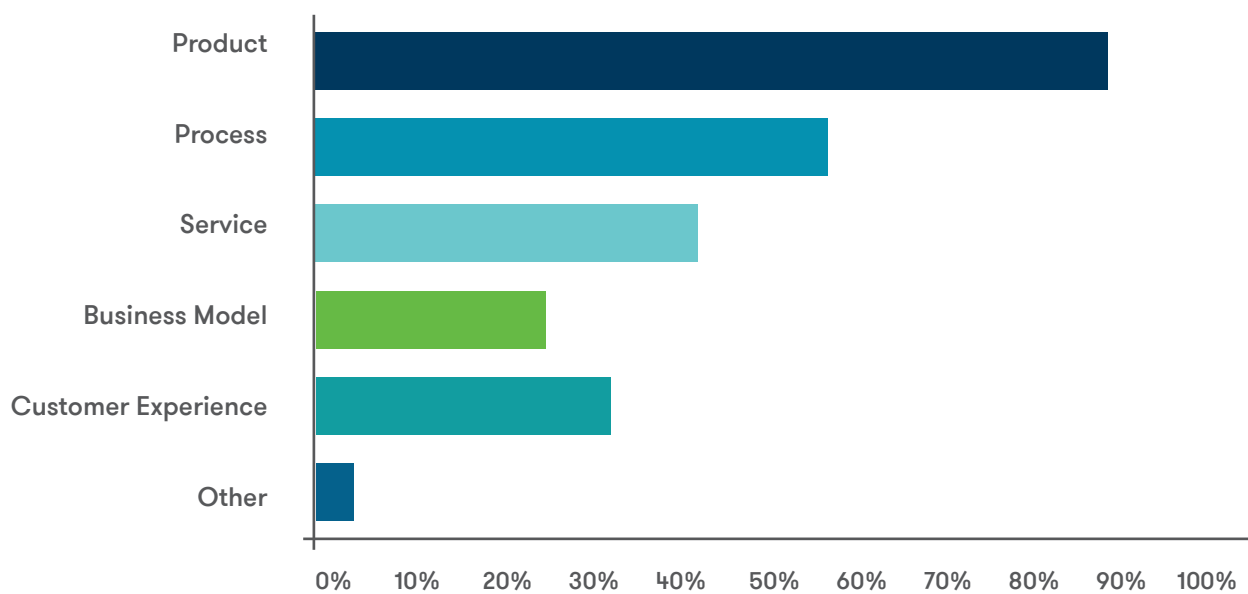


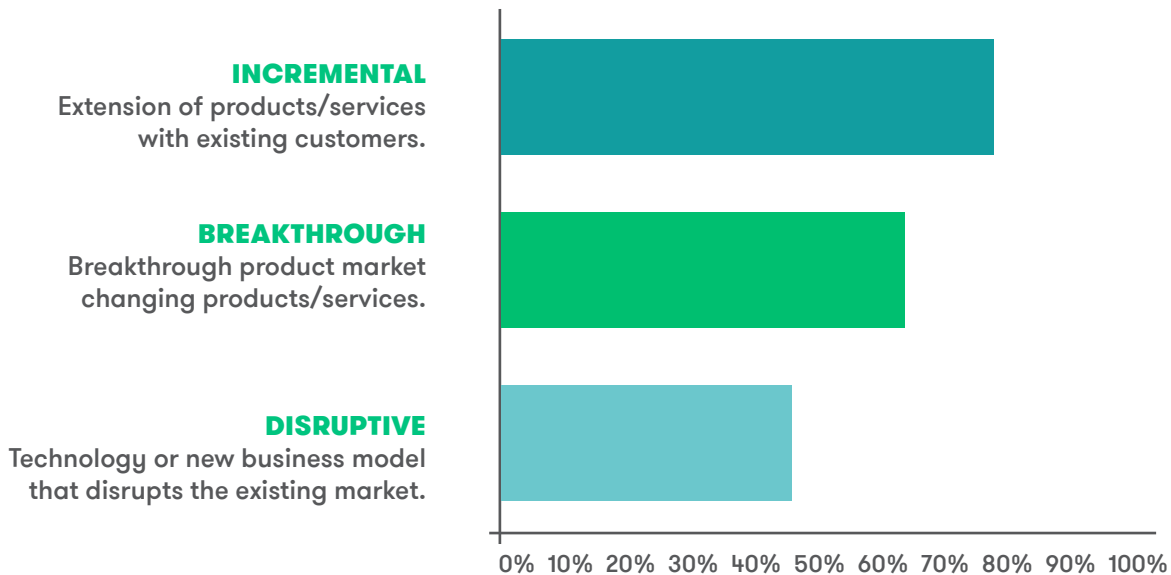


FIG. 7: MAIN CATEGORIES OF RDI ENGAGED IN



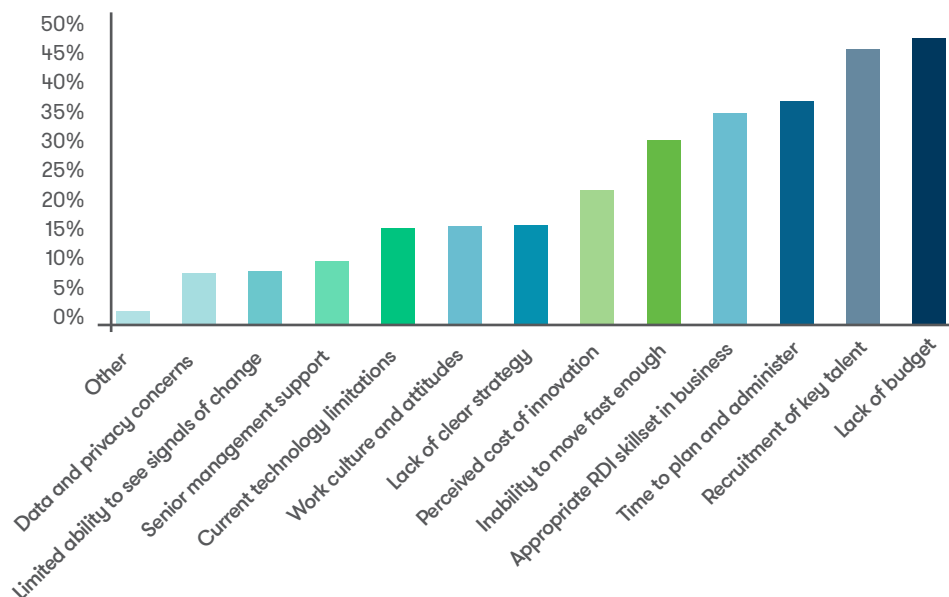
3.2 Innovation Activity & Barriers

FIG. 8: : TYPE OF INNOVATION ENGAGED IN.



Responses to our survey indicate that lack of budget and difficulties recruiting key talent are the biggest factors impacting ability to innovate. Other significant barriers to innovation are; time to plan and administer, inability to move fast enough, lack of appropriate RDI skillset within the business and the perceived high cost of innovation activities.

FIG. 9: FACTORS AFFECTING ABILITY TO INNOVATE.





3.3 Business Innovation Outlook

Our survey respondents were asked about the changes in the level of their Research and Innovation investment over the last 3 years. 68% stated that their Research and Innovation spend increased over the last 3 years. Just 8% indicated that their investment decreased and the balance 24% noted that their Research and Innovation spend remained unchanged over this period.

In relation to innovation outlook, 80% of respondents indicated that they expect their overall Research and Innovation spend to increase over the next 3 financial years. Only 4% expect their investment to decrease over this period with 16% expecting their spend to remain unchanged.

FIG. 10: PROFILE OF RDI SPEND OVER PREVIOUS THREE YEARS



FIG. 11: EXPECTED PROFILE OF RDI SPEND IN COMING THREE YEARS



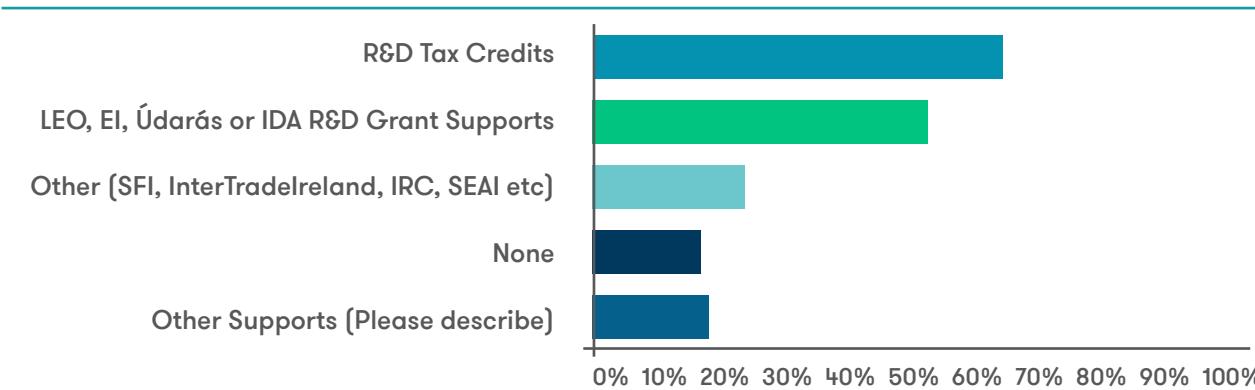
An increase in Research and Innovation activity is, for good reason, one of the key focus areas when it comes to policy and incentives, the sustaining of R&D activities at a particular level is often overlooked or taken for granted. In an increasingly competitive international environment, the ability to retain a level of Innovation activity at an Irish site of an MNC can be a challenging

endeavour and retaining existing levels of R&D is as important as attracting new jobs and investment. The retention of employment in high value R&D jobs can often have an impact on the ability of a company to also retain large numbers of high-skilled manufacturing roles, particularly where R&D is co-located with the manufacturing of the output of the R&D.

3.4 R&D Supports Take Up

According to the survey the R&D Tax Credit is the most used incentive by companies conducting Research and Innovation in Ireland, 64% of companies surveyed have claimed the credit. The most recent figures from the Irish Revenue show that 1,629 availed of the R&D Tax Credit in 2021. Of the other available incentives 53% claimed LEO, EI, Údarás or IDA R&D grant supports, 24% SFI, InterTradelreland, IRC or SEAI grants, less than 1% claimed Horizon Europe grants and 17% of respondents didn't claim any incentives.

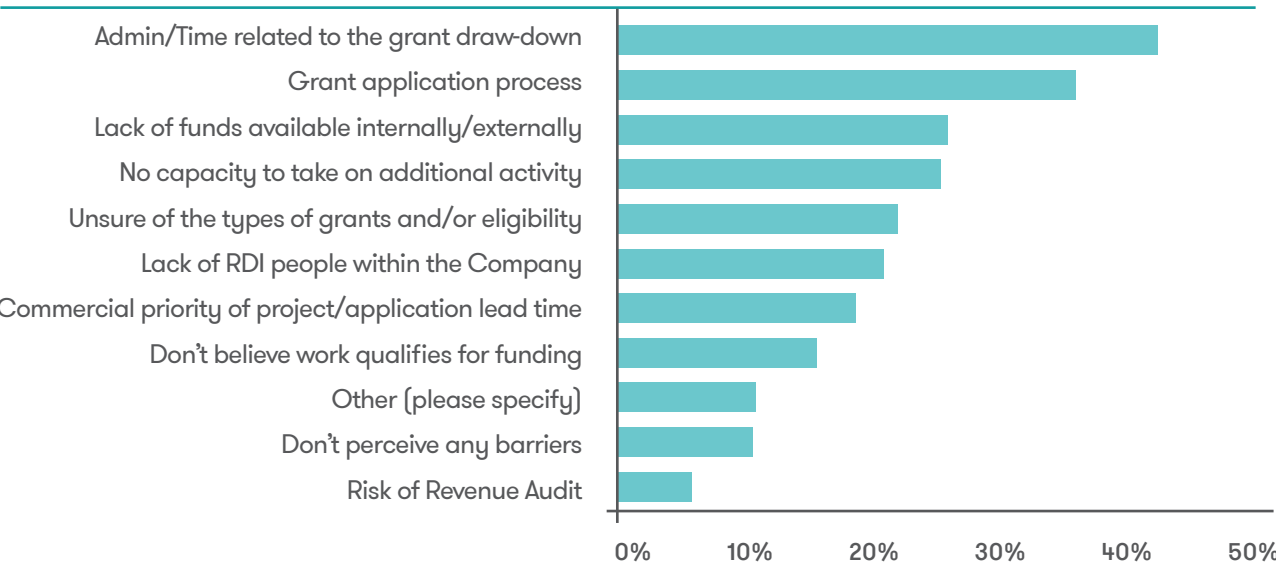
FIG. 12: R&D FUNDING SUPPORTS AVAILED OF



3.5 Barriers to Innovation

According to our survey the biggest barriers preventing companies from applying for R&D state funding, R&D tax credits etc were admin/time related to the grant drawdown, the grant application process and lack of funds available internally/externally. Only 11% of respondents stated that they didn't perceive any barriers to applying for incentives.

FIG. 13: BARRIERS TO ACCESSING STATE SUPPORTS



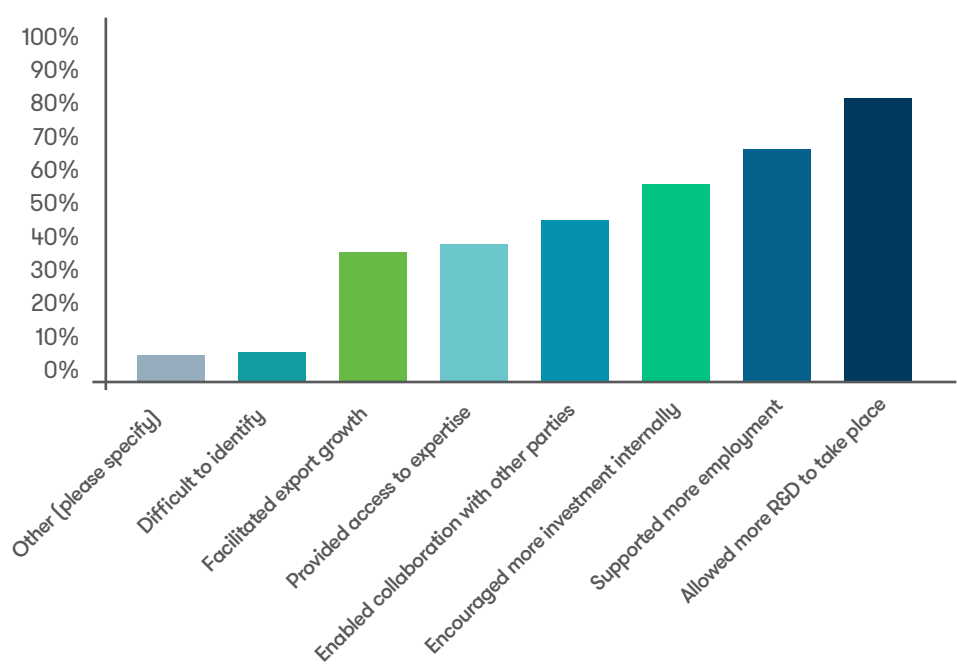


3.6 The Impact of Funding Supports On Business Innovation In Ireland



We asked our survey respondents what impacts funding supports have had on their business. The responses demonstrate the importance of R&D/Innovation incentives. 64% of respondents indicated that these funding supports have allowed more R&D to take place, 52% stated that they supported more employment and 44% noted that the funding supports encouraged more investment internally.

FIG. 14: IMPACT OF STATE SUPPORTS ON THE BUSINESS.



Enhanced R&D Tax Credit Rate for ‘Green and Climate Technologies’

The biggest single issue facing Ireland and all countries over the next decade and beyond is climate change. We strongly support the development of an economy grounded in environmental, economic and social sustainability.

The whole of government Research and Innovation Strategy Impact 2030 states the need to “Develop innovation solutions to enable all sectors, including our agriculture, construction, transport and energy sectors, to embrace and respond to the challenge of climate change” It recognises that “Ireland is committed to transformative action across Government and society to address the climate crisis, to protect our people and the environment and to ensure a sustainable and prosperous future.

“R&I is an important enabler in meeting our goals. ...A decarbonising economy will also bring opportunities. These are clearly emerging in energy efficiency, in renewable energy, in resource recovery, in the circular economy and bioeconomy, and need to be systematically developed through Research and Innovation.”

The twin transition to a green and digital economy represents a huge opportunity for Ireland. Sustainability challenges will provide enormous opportunities and challenges for companies to drive innovation as they seek to re-invent products and services in line with stakeholder demands and climate limitations.

Without a sustained national investment in sustainability Research and Innovation, Ireland will be reliant on technological solutions and expertise from outside the country, reducing our competitiveness both at home and abroad.

The evidence available suggests that there is a low level of this type of R&D being carried out suggesting a distinct market failure which specific supports could address.

To help counter this, we recommend enhancing our existing R&D tax credit regime to allow for a 50% credit on expenditure incurred on R&D activities undertaken in the ‘green technology’ space. This could include R&D with respect to solar, wind, hydro, or biomass energy

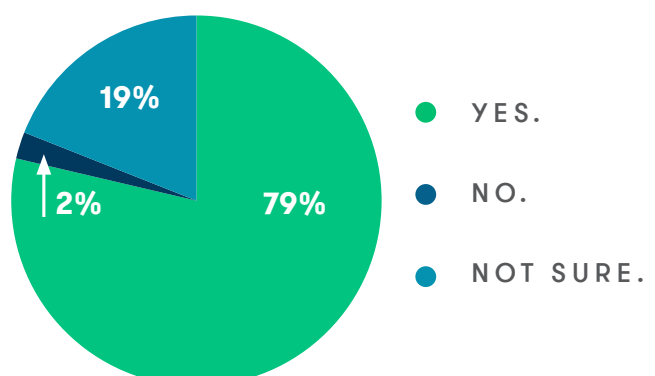
technologies, as well as other green technologies such as soluble or compostable materials for packaging, air filtration methods, ocean cleaning technology, etc.

79% of respondents to our survey stated that they felt this enhanced rate of RDTC (i.e. 50%) would increase R&D investment in these important green technologies. Increased grant supports were also mentioned as an incentive to increase investment in green technologies.

We suggest this higher rate as a bold and substantial step of support to targets at R&D that impacts:

- effective and efficient green decarbonised energy sources
- pollution reduction and promotion of a circular economy
- sustainable agriculture and food production
- energy efficient buildings
- green transport and
- initiatives to foster biodiversity

FIG. 15: LIKELIHOOD OF A 50% R&D TAX CREDIT TO INCENTIVISE INCREASED R&D ON GREEN AND SUSTAINABLE TECHNOLOGIES





3.7 Consultation Questions



We asked MNC's that conduct R&D in other countries how they felt Ireland's Research and Development Tax Credit (RDTTC) regime fared in comparison to those other jurisdictions. While this was a broad question and did not ask about specific elements of Ireland's RDTTC, responses were mixed, with 47% responding that Ireland's R&D grant and tax supports compares favourably to other countries. 31% feel Ireland compares less favourably and 22% stating that Ireland compares equally to other countries.

The UK and France were mentioned as jurisdictions with more generous incentives, with respondents noting that UK rates are becoming more attractive and that there is less admin effort required in both the UK and France.

It's positive that over two-thirds of those involved in RDI in Ireland believe that our support systems compare well to other countries. Continuing to attract RDI activity into Ireland, while retaining our current R&D projects, is critical to Ireland's economic future. We must ensure that our Research and Innovation supports offer a strong incentive to businesses to maintain and develop substantial operations here involving a highly skilled workforce. The need for a best-in-class incentives and support regime is more pronounced in Ireland compared to larger economies. Larger economies have many more resources available, as well as larger universities and deeper talent pools, all of which position them well for R&D activities. Ireland's incentives must therefore be noticeably better to address the inherent disadvantage it faces as a smaller economy. Where successful, we believe Ireland could distinguish and enhance its reputation as a global centre of excellence for Research and Innovation, which would in turn create a positive feedback loop when seeking to attract further such operations here, hence increasing corporate, income and consumption taxes for the Exchequer.





▼ Consultation Questions



How do you think the Irish R&D Tax Credit can remain competitive in the evolving international tax landscape?

In relation to improving Ireland's R&D Tax Credit's competitiveness, 29% of respondents believe that simplifying the claims process and reducing the required admin work, Ireland's tax credit can become much more competitive. Other suggestions were made in relation to benchmarking/comparing to other countries R&D tax credits and ensuring our offering is equal if not better to other jurisdictions and improving accessibility to funding for SMEs.

If you are an MNC, in the absence of the R&D Tax Credit, can you say what proportion of your R&D would take place in Ireland?

As part of the survey, we asked MNCs what proportion of their R&D would take place in Ireland in the absence of the R&D Tax Credit. Of the 131 respondents to this questions, over half (58%) stated that 50% or less of their R&D would take place in Ireland without the credit, with 43% of the total number of respondents stating that 0-25% of their R&D would take place in Ireland without the credit. The majority of MNC respondents to our survey indicated that if the RDTC was not available there would be a marked decrease on the current level of R&D activity that takes place in Ireland. These findings highlight the importance of having a

competitive tax credit to ensure MNCs continue to conduct R&D in Ireland.

In relation to deciding where to conduct R&D activity, the cost of conducting R&D activity is one of the primary factors in the decision matrix. The RDTC is a key lever to help reduce the cost of R&D activity. The consistency of the rate of Ireland's RDTC together with the various legislative enhancements to the credit since its introduction in 2004 have helped companies plan its R&D investment in this respect. We frequently hear that the availability of the RDTC, when combined with IDA R&D related grants, is often the tipping point in investment decisions when Ireland is compared with other jurisdictions. We believe that these results indicate the importance of the RDTC for both maintaining and increasing R&D activity in the State. It is quite clear that the absence of the credit would mean the loss of opportunities to compete effectively for new R&D projects. The volume of R&D activities would reduce over time. The Irish operations would likely become less central to the business with resulting loss of employment and business growth opportunities.

What is your company's most important need around innovation, research or development?

Unsurprisingly, attracting and retaining skilled staff and funding (including government supports) are the most important needs for Irish businesses around innovation, research and development.



If you are a SME, having regard to overall Exchequer cost, what other measures could be taken to improve supports for SMEs carrying out R&D?

We asked SMEs what measures could be taken to improve supports for SMEs carrying out R&D. From the 121 responses to this question, 42 suggested increasing funding/grants available to SMEs, 26 suggested making the application process for grants/tax credits easier and 16 said that improvements could be made on the education/training provided to SMEs.

We agree with the conclusion of the SME Taskforce Report that a more level playing field should be created between indigenous businesses and large multi-national companies in terms

of the measures available to assist with staff mobility and talent retention. In this regard, we strongly support that report's recommendation that the SARP (Special Assignee Relief Programme) regime should be opened to new hires (SME Taskforce Report Action 2.6.4).

In addition to being of immediate benefit to Irish SMEs, it would also open the regime to our universities, allowing them to compete more effectively in attracting global talent to lead research and development here. This represents an opportunity to create a powerful positive feedback loop, driving the carrying on of cutting-edge research in Irish Universities while contributing to the education of highly skilled graduates from these same institutions, thereby further promoting Ireland as a global hub for Irish R&D activities with our universities at its centre.



04. Comparing Ireland & UK Innovation Supports

The R&D tax credit (“RDTC”) is central to Ireland’s goal of becoming a peer recognised innovation leader. Since its introduction in 2004 the RDTC has been successful in attracting foreign direct investment (FDI), and also for nurturing indigenous business, acting as an incentive to increase overall R&D expenditure across all technology sectors. However, the success of the Irish RDTC has not gone unnoticed by other jurisdictions, many of which have significant advantages over Ireland, such as larger internal markets, better transportation infrastructure, geographical proximity to large markets, and a greater spread of well-established industries. As such we must continue to look outward and benchmark ourselves against other jurisdictions, adapting when necessary to ensure that we maintain the competitiveness and attractiveness of the RDTC.

Given our closeness, both geographically and culturally, many companies looking to locate their mobile R&D investment in Europe see the UK as real alternative to Ireland. While the Irish RDTC compares favourably to the two UK regimes, SME (small and medium-sized enterprise) and RDEC (R&D expenditure credit), there are a number of areas where the UK regimes are more advantageous. The main advantages are related to salary, claim timings (both to make the claim and the response period), and support for SMEs (although this may soon end should the UK merge the two existing schemes following their recent public consultation).

In terms of salaries UK claims can include the costs of “qualifying indirect activities” which include clerical administrative activities to write up direct R&D activities, maintenance of R&D equipment, taking on and paying staff, training, etc. For Irish claims employees time claimed must be “in the carrying on” of qualifying activity, which Irish Revenue argues is a stricter definition, with narrower scope. Also, UK claimants can include a greater proportion of their



spend on subcontracted 3rd parties or externally provided workers in some circumstances.

With regards to claim timing, the UK regimes allow claimants to look back over the prior 24 months while making a claim, compared to 12 months in Ireland.. The enquiry window that HMRC has to review a claim is also much shorter, for claims that are filed before the statutory filing deadline the enquiry window typically runs to 2 years from the balance sheet date of the relevant period of accounts for companies in a group that is not small and 1 year from when a claim was filed for other companies thus ensuring claimants have certainty of their claim amount sooner. The Irish Revenue has almost five years to enquire into a claim leaving companies investing in Ireland carrying the risk of a restatement of their credit for a significantly greater time period. This can bring challenges in terms of documentation retention and key R&D staff leaving. There are also timing differences when it comes to payments. In general UK claims are offset against tax liabilities or paid out in the case of loss-making companies as a one-off payment. Recent changes to the Irish regime have resulted in a change to pay-outs, with the window narrowed on companies who can elect to take a tax offset, meaning that more companies are required to have the credit paid out, which takes place in three instalments over three years.

The UK has recently overhauled its R&D schemes, simplifying the claims process and improving the UK's attractiveness as a location for mobile R&D. Following changes announced in the Autumn to reduce the maximum cash credit relief available under the SME scheme from 33.35% to 18.6% from 1 April 2023, in the recent Spring Budget Statement the Chancellor announced an increase to the maximum cash credit to 27% for R&D intensive SMEs that spend at least 40% of their total expenditure on R&D. The Irish Government had attempted to increase the amount claimable by micro and small companies in Ireland to 35%, however it ran into a number of challenges from the European Commission and did not proceed.

Scientific and technological innovation grows economies, and the move towards an innovation fostering knowledge-based economy has been a key goal for Ireland in the 21st century. We need to be more keenly aware of incentives other countries offer and adapt to the changing landscape. R&D is as a key input to innovation, which in turn is a key driver of productivity and long-term economic growth. The recent COVID pandemic has highlighted the need for robust and widespread R&D infrastructure to allow society to adapt in real time to the obstacles it faces. State encouragement of R&D activity is key to the protection of future economic activity and the wider society as a whole.



05. Irelands Global Innovation Performance



Business investment in R&D, particularly in a small open economy like Ireland, takes place in an international context. It's also important to consider the evolving international landscape as we look to ensure the health of the Irish Innovation Ecosystem. The European Innovation Scorecard and the Global Innovation Index are two international benchmarks with which to review Irelands performance.

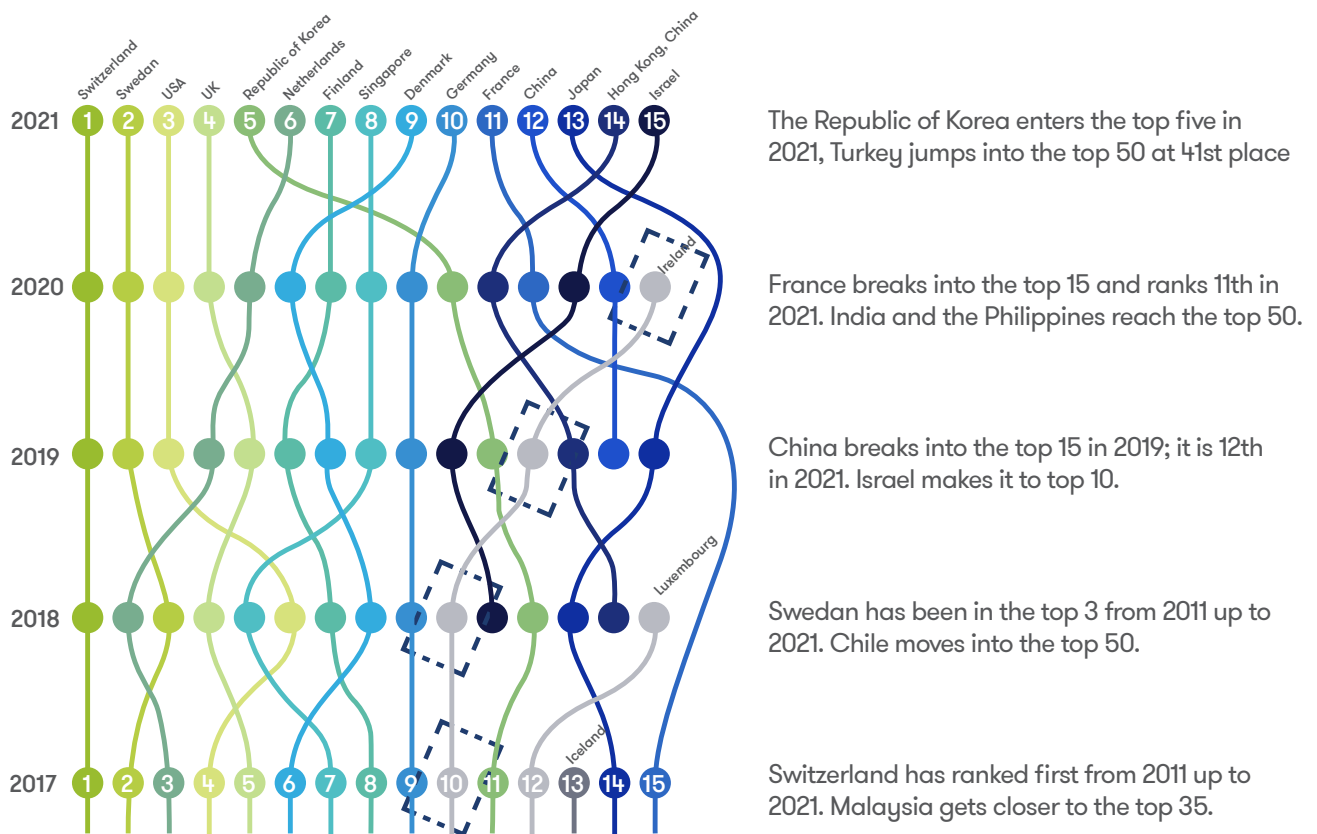
Between 2017 and 2021 Irelands performance declined in both international Indexes with Ireland classified as a "Strong Innovator" by the EU which is a level below the top "Leading Innovator" classification. The challenges posed by this were recognised in the R&D Strategy Impact 2030 which notes "While Ireland's overall investment in R&I has increased in the past decade, our current position as a Strong Innovator on the European Innovation Scoreboard is at risk of being overtaken by other EU Member States, as they improve and invest in their R&I systems. Ireland is no longer one of the ten most innovative Member States, having slipped from sixth place in 2016 to eleventh place in 2021. Likewise, a similar performance can be observed in the Global Innovation Index where Ireland's position has fallen from seventh place in 2016 to nineteenth out of 132 countries in 2021.

This is also reflected at the global level where on the Global Innovation Index Ireland's performance has declined from 10th in 2017 to 19th in 2021 (See Fig 16 below). The relative performance in both indices has broadly tracked each other over the last decade, before diverging in 2022. In 2022 Ireland improved its position in the EU index from 11th to 6th – a large rise which continuing to lag at 19th in the Global Index. Both indices track many similar measures – ranging from the number of patents, to human capital to infrastructure and knowledge and technology outputs. The EU report notes that "For Ireland performance increased strongly in 2022 (7.7%-points) due to improved performance on Government support for business R&D, SMEs with business process innovations, Employment in innovative enterprises and Sales of innovative products" This last point Sales of Innovative Products is the only notable area that the Global Innovation Index does not feature

and it is possible that the 2022 figures relate to 2021 pandemic sales by Irelands strong MedTech and Pharma Sectors.

The European Index notes that the countries ahead of Ireland (Innovation Leaders Sweden, Finland, Denmark, Netherlands and Belgium) are increasing their performance gap over the Strong Innovators while the rest of the EU is improving their performance faster than the Strong Innovators group. Those ahead of us are moving further ahead and those behind us are catching up. Irelands challenge in becoming an Innovation leader is reflected in the underinvestment in R&D at national level. From 2012, government budget allocations for R&D have hovered below 1% of total government expenditure only growing above this in 2019. This falls well below the EU target of 1.34%. In other terms the GBARD (the Government Budget in R&D) whether compared against GDP (Gross Domestic Product), GNP (Gross National Product) or the Governments preferred measure of GNI*1 (modified Gross National Product) in real and %age terms is significantly behind 2010 (a decline from .64% of GNI* to .43% across that decade). The Governments own direct spending on R&D would need to be €500 million a year to match the 2010 %age. To raise ourselves to the Innovation Leaders the Government would need to raise spending from .43% of GNI* to .8% of GNI*, increasing spending from €950 million per year to €1.8 billion a year. To match the Innovation Leaders the total expenditure on R&D in 2021 (including Business and Government spend) would have been €2.2 billion higher at €6.99 billion rather than the reported figure of €4.7 billion.

FIG.16 DECLINING INNOVATION PERFORMANCE. GLOBAL INDEX 2017 10TH. 2021 19TH



Source: Global Innovation Index Database WIPO 2021. Note. Year-on-year comparisons of the GII ranks are influenced by changes in the GII model and data availability

The unanimous view from companies in Ireland over a number of years of survey and discussions is the prioritisation of increased government support for and investment in Research and Innovation. At an EU level Ireland ranks 24th of 28 countries for R&D Expenditure in the Public Sector, while doing better at support for Business R&D raking 8th of 28 countries. Our employment in knowledge intensive industries ranks 2nd in the EU our employment in innovative enterprise only ranks 13th.

At the same time we are facing increasing competition internationally. The UK is committing to the fastest ever increase in domestic public R&D spending, including in basic science research to meet their target of 2.4% of GDP being spent on R&D across the economy. In Section 4 we also outline other recent developments in the UK R&D Tax credit.

Similarly, Germany will spend 3.5% of GDP on research and development by 2025 significantly ahead of Ireland. Ireland R&D spend is currently 1.45% of GNP or 2% of GNI* which not only lags the UK and German plans it lags the EU average figure of 2.2% of

GDP. We are significantly behind the EU's 3% target by any measure and behind countries like Sweden, Austria and Finland that are already spending over 3% of GDP on Research and Innovation and continuing to increase their spend with Finland already one of the leading performances to increase its spend to 4% of GDP.

Addressing this deficit will help narrow the public and private investment gap relative to our competitors. This in turn will help chart Ireland's course to a knowledge- based economy, one that drives Research and Innovation, develops talent, creates high-value jobs and pushes the country forward both socially and economically.

Ireland remains highly dependent on the pipeline of FDI companies whose investments in R&D, along with those of larger indigenous companies are highly mobile. Ensuring Ireland retains its attractiveness as an RDI destination will be of critical importance particularly in comparison to the other countries that are aggressively improving their international positioning.

1 GDP measures the total output of the economy, the total income remaining with Irish residents is the GNP, GNI adjusts domestic incomes for subsidies from and taxes paid to the EU. (DFHERIS, 2021)



06. Irish Government White Paper on Enterprise 2022-2030



Introduction

On the 7th of December 2022 the Irish Government published its White Paper on Enterprise 2022-2030 (White Paper on Enterprise 2022-2030).

The paper was prepared immediately after a very turbulent period in our nation's history – the global Covid pandemic, significant and sustained inflation for the first time in over forty years, and the re-emergence of war in Europe with the resultant dislocation of international supply chains. The importance of the roadmap set out in this paper, cannot be understated. It needs to build on the existing pro-enterprise policy framework and drive our country success embracing sustainability, innovation and increase productivity, as its cornerstones.

Indigenous Irish Enterprises

The paper recognised the tremendous importance of our indigenous sector to our economic wellbeing. The importance of ensuring that appropriate business models are in place so as to allow our local companies benefit from the net zero economy, while addressing digitalisation and cyber security, skills development and innovation are all critical. Building on past successes with respect to providing peer support through clustering, access to their required level resources and national connectivity will remain important.

Foreign Direct Investment (“FDI”)

The paper also recognised the continuing importance of FDI as the central element of our economic model, so that we can continue our success in attracting and retaining significant overseas investment by ensuring that is Ireland’s value proposition – something that is under increasing challenge in recent years.

Some facts

While existing enterprise policy has achieved much, and investment in RDI (GERD (Gross Expenditure in R&D.)) reached €4.6 billion in 2020, it fell short of the Government target of 2.5% GNP and stood at 1.6% GNP – albeit recognising the disruptive impact of the pandemic and Brexit. The potential impact of the evolving movement towards de-globalisation, and the increase in national self-interest represents a real threat to our future economic development. However, Ireland has and will likely remain very attractive to FDI.

It is now estimated that circa 20% of all private sector employment in the State is either directly, or indirectly attributable to FDI – predominantly in ICT, high tech manufacturing (including pharma, biotech and medical devices). Recent stats from the American Chamber of Commerce Ireland show that in 2022, there were 167 new investment announcements from US MNCs in Ireland, accounting for 69% of all new multinational investments in the country. There are now 950 US companies in Ireland, employing 376,000 people directly and indirectly and spending more than €31 billion in the Irish economy annually. Irish based employees of the largest 100 enterprises accounted for €2.7 billion of the €3.3 billion of the total R&D spend in 2019. This investment in R&D is actively supported by the Irish government with a combination of direct government grants made available through the IDA, EI, SFI and other similar agencies, as well as the critically important R&D Tax Credit.

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The White Paper

The paper sets out seven priority future enterprise policy objectives:

1. Integrating Decarbonisation and Net Zero Emissions
2. Placing Digital Transformation at the Heart of Enterprise Policy
3. Advancing Ireland’s FDI and Trade Value Proposition
4. Strengthening the Irish Owned Exporting Sector
5. Enabling Locally Trading Sectors to Thrive
6. Stepping up Enterprise Innovation
7. Building on Strengths and Opportunities

Time will tell whether these are the correct objectives, and whether the strategies and goals out in the paper are achievable and go far enough in terms of ambition.

Be Innovative!

One objective, in particular, that will be critical to our economy’s success is the necessity for innovation – this will drive productivity and allow our small open economy to compete. Ireland is one of the EU’s strong innovators but has lagged on the Global Innovation index. See commentary on in Section 5 for more on this.

Be Ambitious!

This paper is not short on ambition and refers to ‘Impact 2030: Ireland’s Research and Innovation Strategy’ and its goal of achieving a doubling of business expenditure on R&D – for this to happen Government support through direct grants from the likes of IDA and EI, and the value of R&D Tax Credits claimed, each year, will also have to increase significantly. Whether this ambition goes far enough in an increasingly competitive global environment remains to be seen.



07. Conclusions



While the general sentiment regarding Irish R&D grant and tax supports remains positive, Ireland must strive to remain competitive and look for ways to improve our system and increase our attractiveness as a country to conduct mobile RDI and to inspire indigenous companies to innovate. To remain competitive in the evolving international landscape, the key things we believe Irish policy should focus on are:

1. Simplifying the claims process and reducing administrative work associated with accessing grants and tax supports.
2. Increasing funding amounts and expanding eligibility criteria to encourage broader participation in R&D initiatives.
3. Improving access to grants and supports specifically for small and medium-sized enterprises (SMEs).
4. Enhancing supports and incentives for investment in “Green Technologies” to promote sustainable and environmentally friendly innovation.
5. Reducing barriers that hinder companies from applying for RDI supports, streamlining the process to facilitate greater engagement.
6. Significantly increasing spending on R&D to surpass the minimum recommended levels set by the European Union, demonstrating a strong commitment to Research and Innovation.

Improving Global performance/remaining competitive in International Landscape

Although the survey findings show that the majority of MNCs feel that Ireland’s RDTC regime compares favourably or equally with other jurisdictions, there was still a significant number (31%) that felt other countries compared better to our regime. As mentioned above, we believe Ireland needs a best-in-class incentives and support regime more pronounced in Ireland compared to larger economies.

The UK’s increasingly competitive system, coupled with their geographical and cultural closeness make them a competitive threat. The UK was mentioned directly by a number of respondents with one commenting ‘UK rates are becoming more attractive and a less complicated filling process.’

Ireland’s incentives must therefore be noticeably better to address the inherent disadvantage it faces as a smaller economy. Where successful, we believe Ireland could distinguish and enhance its reputation as a global centre of excellence for Research and Innovation, which would in turn create a positive feedback loop when seeking to attract further such operations here, hence increasing corporate, income and consumption taxes for the Exchequer.

While most multinational corporations (MNCs) perceive Ireland’s RDTC regime compares favourably or equally with other jurisdictions, a notable percentage (31%) still believe that other countries offer more advantageous regimes. As mentioned earlier, we strongly believe that Ireland needs to establish a best-in-class incentives and support regime, particularly considering the challenges faced by smaller economies like Ireland when competing against larger economies. The UK, with its increasingly competitive system and close geographical and cultural ties, poses a real challenge. Where successful, we believe Ireland could distinguish and enhance its reputation as a global centre of excellence for Research and Innovation, which would in turn create a positive feedback loop when seeking to attract further such operations here, hence increasing corporate, income and consumption taxes for the Exchequer.

The UK was mentioned directly by a number of respondents with one commenting ‘UK rates are becoming more attractive and a less complicated process.’

The need for Ireland to address these concerns and strengthen its competitive position is evident.

In terms of Ireland’s recent innovation performance, Section 5 provides an overview. While there has been a positive rise in the 2022 European Innovation Scoreboard we continued to decline in Global Rankings. It is important for Ireland to aim higher and narrow the gap with the European and Global “Innovation Leaders.” By doing so, Ireland can chart a path towards becoming a knowledge-based economy that fosters Research and Innovation, nurtures talent, creates high-value jobs, and propels the country forward socially and economically. Closing this gap will not only bring about tangible benefits for Ireland but also establish it as a formidable player in the global innovation landscape.

Increasing funding amounts/expanding eligibility criteria

Lack of budget was the biggest single factor identified that is impacting companies’ ability to innovate, with 48% of businesses stating that more funding would allow them to conduct more RDI. One respondent stated, ‘We have a highly skilled and motivated team with a clear direction in innovation. Current needs are to raise the funds required to execute in a limited timeline’. To reach the Government’s ambitious goal of doubling BERD (Business Expenditure in R&D) by 2030 which was outlined in the White Paper on Enterprise 2022, more funding will need to be made available to businesses. An expansion of the eligible criteria for the RDTC and RDI grants will also increase uptake of these supports which our survey findings suggest inspire more innovation investment (64% of respondents indicated that these funding supports have allowed more RDI to take place).

Improving access for SMEs

Responses to the survey show that SMEs feel that it is very difficult for them to avail of funding supports, with one respondent commenting:

‘It is not a level playing field between the SME’s and the larger organisations as the SME’s do not have

the same financial resources. There should be a higher level of support for the SME’s’.

Administrative time related to grant drawdowns was cited by almost half (48%) as the most significant barrier stopping their companies from applying for RDI supports, with the grant application process itself cited by 39% as a barrier. In relation to improving supports for SMEs conducting RDI, over a third (35%) of SMEs feel that increasing grants and funding will significantly enhance supports for SMEs, while over one in five (21%) indicated that making the application/claims process easier would support them better. 13% also feel that increasing education and training will improve supports.

Enhanced supports for investment in green technologies.

As outlined in section 3.6, without a sustained national investment in Sustainability Research and Innovation Ireland will be reliant on technological solutions and expertise from outside the country, reducing our competitiveness both at home and abroad. 79% of respondents stated an enhanced rate of RDTC (i.e. 50%) would increase R&D investment in these important green technologies. Increased grant supports were also mentioned as an incentive to increase investment in green technologies.

Reduce barriers to applying for RDI supports

RDI supports are a significant contributor to Ireland’s economy, with over half of respondents (52%) saying R&D funding has supported more employment, while almost two-thirds (64%) say it has allowed them to conduct more R&D activity. However, some companies find it quite difficult to access these funding supports, one survey respondent remarked

‘We haven’t used it because it has felt too difficult’.

Administrative time related to grant drawdowns was cited by almost half (48%) as the most significant barrier stopping their companies from applying for RDI supports, with the grant application process itself cited by 39% as a barrier.

These barriers need to be eliminated or reduced to allow more companies access to these supports and



Our Recommendations



1. Increase Government spend on R&D to .8% of GNI* to match Innovation Leaders and set an explicit target of Business and Government spend (GERD) to reach 3% of GNI* over the next three years.
2. Amending the wording of section 766(1) (a) TCA 1997 to “wholly and exclusively for the purposes of R&D activities”, rather than “wholly and exclusively in the carrying on by it of R&D activities”, in order to align the definition of “expenditure on R&D” with the original policy intention. This amendment would also provide greater clarity and certainty to claimants of the relief with respect to qualifying costs.
3. An increase in the limits on the amount of allowable expenditure on outsourced activities to third parties to the greater of 25% of a company’s non- outsourced R&D expenditure or €250,000.
4. An increase in the rate of the relief to at least 35% for the first €1 million of qualifying R&D expenditure.
5. An increase in the R&D tax credit rate to 50% with respect to R&D carried out on green technologies to establish Ireland as a hub for green technology.
6. Introduce a grant to encourage innovation into green technology.
7. Introduce a super-deduction (e.g. 150%) for green technology.

We believe that introducing these changes will help with:

1. Simplifying the claims process/reducing admin work.
2. Increasing funding amounts/expanding eligibility criteria.
3. Improving access for SMEs.
4. Enhancing supports for investment in ‘Green Technologies’.
5. Reducing barriers to applying for RDI supports.
6. Significantly increasing spending on R&D to surpass the minimum recommended levels set by the European Union, demonstrating a strong commitment to Research and Innovation.

Delivering these 6 recommendations will make the goal of doubling BERD much more achievable. It will help us remain competitive with the UK and other European countries and can help us challenge the European and Global ‘Innovation Leaders’.

Survey Methodology

The survey was carried out online between the 27th of April and the 19th of May 2023. A total of 394 responses from Innovation leaders across the country were received, of which 365 responses were fully completed.

Respondents could reply anonymously to the survey or submit their email address to receive a copy of the completed Index – 253 submitted their email addresses.







Additional Data Sources

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Contact Details



Dermot Casey

CEO

Industry Research and
Development Group

dermot.casey@irdg.ie

Ken Hardy

Partner

KPMG Ireland

Ken.hardy@kpmg.ie