Seirbhís Leabharlainne 7 Taighde Library & Research Service

Bill Digest

Research and Innovation Bill 2024

Bill No. 1 of 2024

Niall Watters, Senior Researcher (Public Administration/Social Policy)

26 January 2024

Abstract

The Research and Innovation Bill 2024 provides for the establishment of a new Statutory Agency, Taighde Éireann (Research Ireland), which effectively merges the functions of Science Foundation Ireland and the Irish Research Council into one body. In doing so, and in view of Impact 2030 (Ireland's Research and Innovation Strategy), the Bill seeks, through the establishment of Taighde Éireann, to provide for the funding of research and innovation across fields of activity and disciplines.



Contents

Summary	2
Introduction	6
Background: Policy and legislative context	7
Programme for Government	7
Establishment and role of the Department of Further and Higher Education, Research, Innovation and Science	9
Impact 2030: Ireland's Research and Innovation Strategy	9
Science Foundation Ireland	13
Irish Research Council	15
National research and innovation initiatives	17
HEA and research	18
Financing and expenditure of research and innovation in Ireland	19
Policy issues relevant to the Bill	28
Pre-legislative scrutiny of the General Scheme of the Bill	40
Principal provisions of the Bill	63

This L&RS Bill Digest may be cited as:

Oireachtas Library & Research Service, 2024. L&RS Bill Digest: Research and Innovation Bill 2024. Bill No. 1 of 2024.

Legal Disclaimer

No liability is accepted to any person arising out of any reliance on the contents of this paper. Nothing herein constitutes professional advice of any kind. This document contains a general summary of developments and is not complete or definitive. It has been prepared for distribution to Members to aid them in their parliamentary duties. Some papers, such as a Bill Digest, are prepared at very short notice. They are produced in the time available between the publication of a Bill and its scheduling for second stage debate. Authors are available to discuss the contents of these papers with Members and their staff but not with members of the general public.

© Houses of the Oireachtas 2024

Summary

The <u>Research and Innovation Bill 2024</u> provides for the dissolution of Science Foundation Ireland (SFI) and the merging of its functions with those of the currently non-statutory Irish Research Council (IRC).¹ This is to be achieved through the establishment of new statutory agency, **Taighde Éireann** (Research Ireland). Taighde Éireann is being established therefore to lead and manage research and innovation funding in the State. Taighde Éireann will operate under the aegis of Department of Further and Higher Education, Research, Innovation and Science.

Among the objectives set out in the Bill for Taighde Éireann are the following:2

- to promote the attainment and maintenance of excellence in the standard and quality of research and innovation;
- to support the undertaking of research and innovation in all fields of activity and disciplines by researchers with different levels of knowledge, experience and specialist skills in such fields or disciplines;
- to promote and support the contribution made by research and innovation to economic, social, cultural and environmental development and sustainability in the State;
- to strengthen the engagement of the research and innovation system with (i) the Government and public bodies, and (ii) enterprise, non-governmental organisations, and cultural institutions

The functions of Taighde Éireann as set out in the Bill include the following:3

- promote and develop research and innovation in the State by designing and administering funding schemes, in accordance with international good practice, for the award and disbursement of funding for research and innovation,
- support the development and maintenance of a national system of research and innovation, in co-operation and collaboration with the HEA, Enterprise Ireland and the other bodies
- promote research and innovation which supports the development and competitiveness of enterprise and employment in the State, nationally and regionally, and to so do, in cooperation and collaboration with Enterprise Ireland and the other bodies

There are a number of key policy developments that provide the background for the *Research and Innovation Bill 2024*. The first of which is the current Programme for Government, 'A Shared Future', which makes multiple references to research and / or innovation. In particular, it commits to ensuring "that Ireland is a global leader in research and innovation across the arts, humanities, social sciences, and STEM" and endeavouring "to make Ireland a more attractive location as a base for academic research and researchers". A second policy context for the Bill is the establishment in 2020 of a Government Department with specific responsibility for further and higher education, research, innovation and science. The third key policy context for the Bill and thus the establishment of Taighde Éireann is the publication in March 2022 of Impact 2030 – *Ireland's Research and Innovation Strategy*. The overarching purpose of the <u>strategy</u> is to

² It should be noted that the bullet points are summaries of key parts of the Bill. The full set of Objects are set in the Research and Innovation Bill 2024 (oireachtas.ie).

¹ IRC is currently situated within the Higher Education Authority.

³ It should be noted that the bullet points are summaries of key parts of the Bill. The full set of Functions are set in the Research and Innovation Bill 2024 (oireachtas.ie).

⁴ Department of the Taoiseach (2020) Programme for Government – Our Shared Future, Dublin: Government publications.

maximise the impact of research and innovation on multiple national priorities.⁵ Impact 2030 states that a "landmark Research Bill will be brought to Government to create a new competitive research and innovation funding agency, combining and building on the missions of the Irish Research Council and Science Foundation Ireland."

The body of the Digest below provides an overview of Science Foundation Ireland, the Irish Research Council, the various national research and innovation initiatives as well as the level of public and private expenditure on research and development seen in recent times.

In terms of expenditure on research and development in Ireland, the highest expenditure was in business sector where an estimated €3,887m was invested in research and development in 2022. It should be noted this expenditure is not government expenditure and the businesses responsible for the vast majority of the expenditure are not Irish owned business. The most recent survey of research and development expenditure in the higher education sector puts the expenditure at €742.1m for 2020.⁶ The Government sector is the smallest sector with €179m of research being carried out in government institutions such as Teagasc and the Marine Institute in 2022. (Government sector figures also include an estimate for government funded and hospital performed R&D of €35 million).

A number of policy issues of relevant to the Bill are discussed in detail in the body of the Digest. These include:

- The importance of definitions and interpretation of key concepts such 'research,' 'innovation', 'excellence' etc.
- Differences between public/private investment in research and innovation, and Ireland's level of public investment when compared internationally
- Governance of, and representation of stakeholders in the Irish research system in, Taighde Éireann
- Attracting researchers and issues with precarious research employment
- Parity of esteem between research disciplines and types of research

The Digest also presents the key debates and recommendations made on the part of the Joint Committee (on Education, Further and Higher Education, Research, Innovation and Science) in respect of the pre-legislative scrutiny (PLS) on the General Scheme of the Research and Innovation Bill. In this regard, it finds that 53.4%, or 11, of the 21 recommendations made by the Joint Committee as part of the PLS of the Bill have been either fully or partially included in the Bill.

The final part of the Digest provides a summary overview of the principal provisions of the Bill, which are also set out in Table 1 below.

⁵ The following information on the strategy has been reproduced almost *verbatim* from Department of Further and Higher Education, Research, Innovation and Science (2022) *Minister Harris launches Impact 2030: Ireland's Research and Innovation Strategy.* Press release 18 May 2022. Available at https://www.gov.ie/en/press-release/18f45-minister-harris-launches-impact-2030-irelands-newresearch-and-innovation-strategy/

⁶ It should be noted here that there was a change in the methodology used in 2019,

Table of provisions

Table 1 Table of provisions of the Research and Innovation Bill 2024

Section(s)	ction(s) Title Effect					
Part 1: Prel	Part 1: Preliminary and General					
1-5 Preliminary and general		The provisions here are for the most part standard provisions. Section 2 sets out the interpretation of terms used in the Bill, including 'research', 'innovation' 'outcomes and, where appropriate, the impact, and 'standard and quality', among others.				
Part 2: Taig	ıhde Éireann					
6-10	Establishment and functions of Agency	These sections provide for the establishment, objectives and functions of Taighde Éireann.				
11-14 Ministerial powers and information provides that the Minister may direction and guidance in writin		These sections, among other things, provides that the Minister may give a direction and guidance in writing to Taighde Éireann in respect of the Act and related matters.				
15-21	Board of Agency	In these sections, provision is made for the Board, Membership, Chairperson, operation and sub-committees of the Board etc.				
Funding and accountability of Agency be made to the agency, its Annual Plans, audit proced annual reports etc. of Taight Sections 28-31 provides for appointment of the Chief Exby the Board with the consequence of the Board with the consequence of the Executive Officer.		These sections provide for the funding to be made to the agency, its Corporate and Annual Plans, audit procedures, accounts, annual reports etc. of Taighde Éireann.				
		Sections 28-31 provides for the appointment of the Chief Executive Officer by the Board with the consent of the Minister, as well as the functions and accountability of the Chief Executive Officer.				
32-33 Staff of Agency		These sections provide for the staff of the agency as well superannuation of staff.				
34	Unauthorised disclosure of confidential information	This section provides that a staff member of, or an advisor/consultant, to Taighde Éireann shall not disclose confidential information related to the agency.				
Part 3: Arra	Part 3: Arrangements for the Funding of Research and Innovation					

Section(s)	Title	Effect	
35-48	Arrangements for the Funding of Research and Innovation	These sections provide for the Taighde Éireann to put in place funding schemes for research and innovation that are in keeping with its objective and functions. The sections also provide the operation and promotion of such funding schemes, as well as cross-departmental and international co-operation in respect of funding, among other things.	
Part 4: Data	a Protection		
49-50	Data protection	These sections provide for the data protection standards to be applied by Taighde Éireann.	
Part 5: Tran	nsitional, Consequential and Miscellan	eous Provisions	
51-68	Transitional, Consequential and Miscellaneous Provisions	These sections of the Bill provide, among other things, for the dissolution of SFI and transfer of its staff, operations and undertakings to Taighde Éireann. The sections also provide for the staff of the HEA working under the Irish Research Council to be transferred to Taighde Éireann as well matters related.	

Source: Derived from Research and Innovation Bill 2024

Introduction

The <u>Research and Innovation Bill 2024</u> was published on the Oireachtas site on 8 January 2024, following its initiation to the legislative stages. The Bill provides for the dissolution of Science Foundation Ireland (SFI) and the merging of its functions with those of the currently non-statutory Irish Research Council (IRC) through the establishment of new statutory agency, Taighde Éireann (Research Ireland). Taighde Éireann is being established therefore to lead and manage research and innovation funding in the State. Taighde Éireann will operate under the aegis of Department of Further and Higher Education, Research, Innovation and Science.

The purpose of the Bill, among other things, is therefore the following:

- to make further provision for the funding of research and innovation in all fields of activity and disciplines and, for that purpose, to provide for the establishment and functions of a body to be known as Taighde Éireann;
- to provide for the dissolution of SFI, the transfer of its staff, records, assets and liabilities to Taighde Éireann;
- to amend the Higher Education Authority Act 2022 and to provide for the transfer of certain members of staff and records, assets and liabilities relating to research of An tÚdarás um Ard-Oideachas to Taighde Éireann; to provide for the repeal of certain provisions of the Industrial Development (Science Foundation Ireland) Act 2003 and the Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 and the Industrial Development (Forfás Dissolution) Act 2014.8

The Department of Further and Higher Education, Research, Innovation and Science has stated that the main objectives of the *Research and Innovation Bill* are the following:

- to promote the attainment and maintenance of excellence in the standard and quality of research and innovation undertaken;
- to support the undertaking of research and innovation in all fields of activity and disciplines by researchers with different levels of knowledge, experience and specialist skills in such fields or disciplines;
- to promote and support the contribution made by research and innovation to economic, social, cultural and environmental development and sustainability in the State;
- to strengthen the engagement of the research and innovation system with— (i) the Government, Ministers of the Government and bodies (whether statutory or otherwise) which are funded wholly or partly by public moneys, and (ii) enterprise, non-governmental organisations, cultural institutions and society generally;
- to promote and develop the reputation of the State internationally as a place that is favourable for undertaking research and innovation;
- to advance the principles of equality, diversity and inclusion with regard to opportunities to undertake research and innovation and in the undertaking of that research and innovation.⁹

⁷ The General Scheme of the Bill was approved by Government on 5 April 2023 and was subject to pre-legislative scrutiny by the Joint Committee on Education, Further and Higher Education, Research, Innovation and Science on 9 and 15 of May 2023, resulting in the publication of the Committee's PLS Report on 15 July 2023.

⁸ gov.ie - Research and Innovation Bill 2024 (www.gov.ie).

⁹ gov.ie - Minister Harris welcomes Government approval to publish Research and Innovation Bill 2023 (www.gov.ie).

Following approval of the Bill by Cabinet on 20 December 2023, Simon Harris TD, Minister for Further and Higher Education, Research, Innovation and Science stated the following in respect of the Bill:

"The new agency will build on the recognised and important strengths of the Irish Research Council and Science Foundation Ireland, in driving research and innovation excellence. For the first time, we are putting arts, humanities and social sciences research on a statutory footing, ensuring parity of esteem and supporting researchers in all disciplines, and at all career stages." ¹⁰

Minister Harris continued that:

"As part of the wider research and innovation system, the agency will help build the capacity we need for research and innovation excellence into the future. The role of research has expanded, as we face into the green and digital transitions. The agency will support research, innovation, skills development, education, and cooperation across Government, across the country, and out into the wider worldwide research community, to support our country in responding to our national challenges, and in embracing new opportunities."

The Bill is comprised of six Parts accounting between them for 68 sections. 12

Structure of Bill Digest

Given the extent of the Bill, this Bill Digest does not seek to treat each provision but focuses on the main policy issues that the Bill proposes to provide for. As such, the Bill Digest begins by outlining the policy background and context for the Bill and then proceeds in turn to explore number of themes relevant to the Bill's content. An overview of the principal themes of the Bill's provisions is also set out along with the outcome of the pre-legislative scrutiny process of the General Scheme of the Bill.

Background: Policy and legislative context

As noted in the introduction, the *Research and Innovation Bill 2024* seeks to establish a new statutory body, Taighde Éireann, which will amalgamate the functions and activities of the Irish Research Council (IRC), currently working under the aegis of the Higher Education Authority, and Science Foundation Ireland (SFI), which is established under statute.¹³

This section provides an overview of some of the key policy developments that comprise the context for the <u>Research and Innovation Bill 2024</u>.

Programme for Government

To begin with, there are multiple references to research and / or innovation in the current Programme for Government, 'A Shared Future'. These are seen across the various thematic "Missions" which structure the Programme, namely:

¹⁰ gov.ie - Minister Harris welcomes Government approval to publish Research and Innovation Bill 2023 (www.gov.ie).

¹¹ gov.ie - Minister Harris welcomes Government approval to publish Research and Innovation Bill 2023 (www.gov.ie).

¹² It should be noted that Part 2 of the Bill, entitled "Taighde Éireann", is comprised of seven chapters.

¹³ Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 (irishstatutebook.ie).

- "A better quality of life for all" (research);
- "Reigniting and renewing the economy" (research, and, innovation);
- "A green new deal" (research, and, innovation);
- "Universal health care" (research);
- "Housing for all" (research);
- "Balanced regional development" (research, and, innovation);
- "A new social contract" (research, and, innovation);
- "Building opportunities through education and research" (research, and, innovation);
- "A shared island" (research, and, innovation); and,
- "Reforming and reimagining our public life" (research, and, innovation).

References in the Programme for Government of note that refer to both research and innovation include the following, which appears under the section entitled "Research", under "Mission: Better Opportunities through Education and Research": 14

"We understand the vital part played by research as the basis of sound policymaking across Government. We will ensure that Ireland is a global leader in research and innovation across the arts, humanities, social sciences, and STEM.

We will endeavour to make Ireland a more attractive location as a base for academic research and researchers. We want research based in Ireland to be at the forefront of the next phase of disruptive technologies, leading rather than following the technological revolution, while also being a centre for foundational research. We will strive to create an atmosphere in which research in Ireland is mindful of an ever-changing society, while also being agile and responsive to the need for innovation in business and industry."

In this section, the Programme for Government also makes the following specific commitments:15

- Recognise the high-quality research emerging through national funding agencies and programmes, such as SFI, IRC, Health Research Board (HRB) and the Programme for Research in Third Level Institutions (PRTLI) and continue to support them in engaging in research that addresses societal challenges and advances the UN's Sustainable Development Goals.
- Develop challenges-based research funding approaches for all disciplines so that Irish researchers directly address the major issues facing society in the years ahead.
- Ensure support for foundational and discovery research.
- Increase the number of SFI Research Centres and seek to establish a cross-border research centre, to bring together universities and industry, north and south.
- Examine the need for specialist research institutions outside the Higher Education system.
- Develop career pathways for early-career researchers, with Starting Grant funding rounds being issued on an annual basis from each of our funding institutions.
- Expand the linkages between research and enterprise, with a particular focus on encouraging collaboration with domestic SMEs.
- Work across third-level and research sectors, to ensure that the work and contribution of PhD candidates is recognised appropriately.

¹⁴ Department of the Taoiseach (2020) <u>Programme for Government – Our Shared Future</u>, Dublin: Government publications, P. 100.

¹⁵ Ibid: 100-101.

- Propose the simplification of the application processes for grant funding from EU-funded research and innovation projects.
- Work at EU level to promote greater SME take-up of research and innovation funding.

Impact 2030 (Ireland's Research and Innovation Strategy) (discussed below) states that it reflects the Programme for Government and, in particular, where it identifies the need to "Develop challenges-based research funding approaches for all disciplines, so that Irish researchers directly address the major issues facing society in the years ahead". 16

Establishment and role of the Department of Further and Higher Education, Research, Innovation and Science

The Department of Further and Higher Education, Research, Innovation and Science was established on August 2 2020 under the <u>Ministers and Secretaries and Ministerial</u>, <u>Parliamentary</u>, <u>Judicial and Court Offices (Amendment) Act 2020</u>, followed, on 21 October 2020, by the transfer of functions to the Department of Further and Higher Education, Research and Science from the <u>Department of Education</u> under SI no <u>451/2020 - Further and Higher Education</u>, <u>Research</u>, <u>Innovation and Science (Transfer of Departmental Administration and Ministerial Functions) Order 2020.</u>

One of core roles of the Department of Further and Higher Education, Research, Innovation and Science (DFEHRIS) is to fund and create policies for the higher and further education and research sectors. The Department is also responsible for overseeing the work of the state agencies and public institutions operating in these areas.

The Department's role is to ensure that these sectors support and encourage Ireland's social and economic development. A list of the Programme for Government commitments of relevance to the DFEHRIS is available here.

In the *Research and Innovation Bill 2024*, the DFHERIS is responsible for funding and creating policy for the higher and further education and research sectors. It also oversees the work of the state agencies and public institutions operating in these areas. Related Government policy has recently been set out in Impact 2030, Ireland's Research and Innovation Strategy, which is discussed below.

Impact 2030: Ireland's Research and Innovation Strategy

Impact 2030 - Ireland's Research and Innovation Strategy was published in March 2022.

The overarching purpose of the <u>strategy</u> is to maximise the impact of research and innovation on multiple national priorities.¹⁸ Impact 2030 is the result of wide-ranging consultation and analysis, and it seeks to progress objectives that are shared across the Irish research and innovation system, including, for example, ensuring that research expertise is more accessible to policymakers and the public, and nurturing and attracting 'top talent'.

¹⁶ Department of Further and Higher Education, Research, Innovation and Science (2022) Impact 2030 - Ireland's Research and Innovation Strategy, P. 4.

¹⁷ Further and Higher Education, Research, Innovation and Science (Transfer of Departmental Administration and Ministerial Functions) Order 2020.

¹⁸ The following information on the strategy has been reproduced almost *verbatim* from Department of Further and Higher Education, Research, Innovation and Science (2022) *Minister Harris launches Impact 2030: Ireland's Research and Innovation Strategy.* Press release 18 May 2022. Available at https://www.gov.ie/en/press-release/18f45-minister-harris-launches-impact-2030-irelands-newresearch-and-innovation-strategy/

The vision of Impact 2030 is the following:

- For research and innovation to make a real and positive impact across society, the economy and the environment, both domestically and internationally.
- To enable research excellence by creating a world-class, accessible environment supported by a clear strategy architecture and institutional landscape.
- For enterprises, particularly SMEs, to start, succeed and transform through innovation, knowledge exchange, research commercialisation and access to highly skilled people.
- Research talent is supported at all career stages, and excellence and impact are rewarded.
- Research and innovation contribute to a shared island and an innovative Europe through strong North-South, European and global R&I collaborations.
- Investment in research and innovation is increasing, with investment rising to at least 2.5% of the domestic economy before the end of 2030.¹⁹

In respect of the final part of the vision, Ireland's domestic economy, as measured by GNI*,²⁰ at current prices for 2021 was €234bn. This represented an increase of 15.4% on 2020. 2.5% of €234bn is €5.85bn (additional material on the expenditure related to research and development in Ireland is set out in the relevant sections below).²¹

The Impact 2030 strategy is composed of the following five pillars on the impact of:²²

- Pillar 1: Maximising research and innovation's impact on the economy, society and the environment.
- Pillar 2: (Maximising the) impact of research and innovation structures on excellence and outcomes.
- Pillar 3: (Maximising the) impact of innovation driving enterprise success.
- Pillar 4: Talent at the centre of the research and innovation ecosystem.
- Pillar 5: Research and innovation contributes to a shared island and innovative Europe through strong all-island, European and global R&I collaborations.

Execution of the <u>strategy</u> is by way of three three-year work programmes, the first of which accompanied its publication.

According to the <u>strategy</u>, the DFHERIS will drive coordination and cohesion of the national Research and Innovation (R&I) agenda, working with all stakeholders. Ireland's public R&I system²³ is illustrated in Figure 1 below, which shows the relationship between various government departments and research agencies, including those involved in sectoral research.

²² Government of Ireland (2022) Impact 2030 – Ireland's Research and Innovation Strategy

¹⁹ Impact 2030: Ireland's Research and Innovation Strategy. Press release 18 May 2022. Available at https://www.gov.ie/en/press-release/18f45-minister-harris-launches-impact-2030-irelands-newresearch-and-innovation-strategy/

²⁰ Modified GNI (GNI*) is an indicator that was recommended by the <u>Economic Statistics Review Group</u> and is designed to exclude globalisation effects that are disproportionally impacting the measurement of the size of the Irish economy.

²¹ GNI* and De-Globalised Results - CSO - Central Statistics Office

²³ The term R&I in the <u>strategy</u> is used to refer to the full spectrum of basic and applied research, experimental development and innovation.

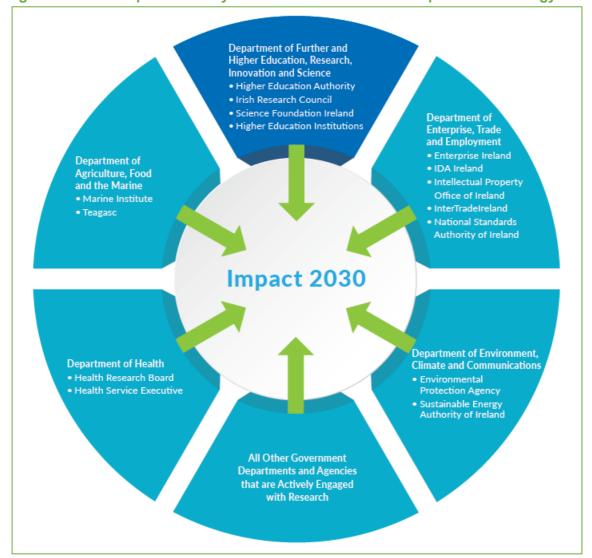


Figure 1: Ireland's public R&I system in the context of the Impact 2030 strategy

Source: Government of Ireland (2022) Impact 2030, Ireland's Research and Innovation Strategy.

In the opening pages of the Impact 2030, Minister for FHERIS, Simon Harris TD, states the following:

"A landmark Research Bill will be brought to Government to create a new competitive research and innovation funding agency, combining and building on the missions of the Irish Research Council and Science Foundation Ireland. This is an exciting opportunity to place all research areas on an equal and statutory footing and to drive a step-change in interdisciplinary research activity."

Furthermore, Impact 2030 states:²⁴

"The new agency will preserve and further advance the progress made in building Ireland's Internationally recognised brand and reputation in research excellence across many disciplines."

²⁴ Impact 2030, 2022:15

This new agency, which in line with the Bill is to be named Taighde Éireann, will be mandated to drive interdisciplinary research engagement, as well as to support continued "research excellence" within the Arts, Humanities and Social Sciences and Science, Technology, Engineering and Mathematics disciplines and enhance collaboration with the enterprise and public sectors. Impact 2030 further states that the creation of the new R&I agency represents an opportunity to place Arts, Humanities and Social Sciences research on an equal and statutory footing to Science, Technology, Engineering and Mathematics research ensuring parity of esteem, access to research funding and greater consistency across the research community. In addition, it will strengthen the role of the Arts, Humanities and Social Sciences in contributing to challenge-based research, which is essential to addressing complex problems.

Impact 2030 states that the structure of the new research and innovation agency:

"will be designed to incorporate sub-committees or councils to ensure a comprehensive and appropriate range of expertise is available to inform best practice across all research areas. This new agency will also deliver administrative efficiencies and a simplified suite of supports for researchers across all disciplines."

And, it is suggested that what it terms the "Research Bill" will:

"leverage the significant opportunity brought about by the establishment of the Department of Further and Higher Education, Research, Innovation and Science. In addition to benefitting from existing staff expertise, this new agency will have a combined budget of €270 million (i.e. circa three quarters of total national competitive research awards)."

Moreover, Impact 2030 states the establishment of the new R&I agency will be based on extensive consultation and what it terms a 'due diligence' process that will seek to identify the best structure to the proposed role and functions of the agency. Impact 2030 continues in this regard that:²⁵

"[t]his process will also present the opportunity to consider its future engagement with other research funders and performers. The agency will collaborate with the sectoral funding agencies under other key R&I-funding Departments to drive efficiencies and impact across the system.

Pending enactment of new legislation and following the above mapping exercise, consideration will be given to establishing the new agency on an administrative basis in order to increase collaboration on existing activities and drive efficiencies as soon as possible."

Appendix A of Impact 2030 sets out the work programme for the years 2022 to 2024. As well as having a central leadership role for DFHERIS, including enacting the "Research Bill", the work programme also names lead roles under the various pillars, to different extents, for the Departments of: Environment, Climate and Communications; Public Expenditure and Reform; Enterprise, Trade and Employment; Taoiseach; Health; Agriculture, Food and the Marine; and Finance.

²⁵ Ibid: 15

Science Foundation Ireland

<u>Science Foundation Ireland</u> (SFI) is the national foundation for investment in scientific and engineering research in Ireland.²⁶ SFI is currently the largest Irish competitive funding agency, funding research in Ireland's higher education institutions, which is often done in partnership with industry or other national and international research funders.²⁷ Through this funding, SFI addresses social challenges and ensures Ireland has the skills, ideas, and technologies needed to be a true global knowledge economy.²⁸

SFI describes its remit as follows:

"Our research promotes and assists the development and competitiveness of industry, enterprise and employment in Ireland. <u>Oriented basic research</u> is research that is carried out with the expectation that it will produce a broad base of knowledge that is likely to form the background to the solution of recognised, or expected, current or future problems or possibilities.

Applied research is an original investigation undertaken to acquire new knowledge and is directed primarily towards a specific practical aim or objective. The results of applied research are intended primarily to be valid for a single or limited number of products, operations, methods, or systems.

SFI also promotes and supports the study of, education in, and engagement with STEM and promotes an awareness and understanding of the value of STEM to society and, in particular, to the growth of the economy. The definition of STEM employed by SFI does not extend to the Humanities and Social Sciences, except where it may pertain to the specific mission of the Foundation – for example, through the use of targeted instruments, SFI may support the development, assessment and publication of research to assess the impact of funded research activities, STEM teaching, etc." ²⁹

Legal remit of SFI

SFI was initially established in 2000, as a sub-board of Forfás³⁰, to administer Ireland's Technology Foresight Fund. SFI was subsequently established as a separate legal entity under the *Industrial Development (Science Foundation Ireland) Act 2003*. Its aim is "to promote, develop and assist the carrying out of oriented basic research in strategic areas of scientific endeavour that concerns the future development and competitiveness of industry and enterprise in the State".³¹

²⁶ A 2019 Department of Public Expenditure and Reform <u>report</u> describes the role of SFI as follows: "Science Foundation Ireland (SFI) is a national foundation for investment in oriented basic and applied research in the areas of science, technology, engineering, and mathematics (STEM) to assist the development and competitiveness of industry, enterprise, and employment in Ireland. SFI also has a role in promoting STEM engagement and education".

²⁷ Department of Further and Higher Education, Research, Innovation and Science (2022) *Policy information - Competitive research funding agencies*. Available at https://www.gov.ie/en/policyinformation/a355a-competitive-research-funding-agencies/

²⁸ Department of Further and Higher Education, Research, Innovation and Science (2022) *Policy information - Competitive research funding agencies*. Available at https://www.gov.ie/en/policy-information/a355a-competitive-research-funding-agencies/

²⁹ Science Foundation Ireland (SFI) webpage, What we do. Available at https://www.sfi.ie/aboutus/about-sfi/what-we-do/

³⁰ Forfás was Ireland's national policy advisory body for enterprise and science before being dissolved and its functions transferred to a government department.

³¹ Industrial Development (Science Foundation Ireland) Act 2003, section 7.

The formal definition of SFI's legal remit is detailed within the Act of 2003, and as Amended in 2013, and Statutory Instruments (2008 & 2013) listed below.³² In 2014, Ministerial approval was granted to permit SFI to enter into strategic partnerships with major international funding bodies and in these situations to permit the funding of areas outside the prescribed strategic areas of opportunity.

Box 1: Links to legislation regarding SFI's legal remit

- 1. Industrial Development (Science Foundation Ireland) Act 2003. Available at http://www.irishstatutebook.ie/2003/en/act/pub/0030/index.html (Section 7)
- S.I. No. 134/2008 Industrial Development (Science Foundation Ireland) Act 2003 (Strategic Areas of Scientific Endeavour) Regulations 2008. Available at http://www.irishstatutebook.ie/2008/en/si/0134.html (Energy)
- 3. Industrial Development (Science Foundation Ireland) (Amendment) Act 2013. Available at http://www.irishstatutebook.ie/pdf/2013/en.act.2013.0036.pdf (Amendment)
- S.I. No. 476 Of 2013 Industrial Development (Science Foundation Ireland) (Strategic Areas of Opportunity) Regulations 2013. Available at http://www.irishstatutebook.ie/eli/2013/si/476/made/en/pdf (Strategic Areas of Opportunity)

Organisation of SFI – the Board and the Executive Committee³³

In line with primary legislation, the SFI Board is responsible for setting the broad strategy and policies of SFI, its system of internal financial control and oversight responsibility for the activities of the organisation. The Board delegates to its executive management and sub-committees the responsibility for the implementation of these policies. Board Members are appointed by the Minister for Further and Higher Education, Research, Innovation and Science.

SFI's Executive Committee is chaired by the Director General and is made up of the senior management team. The purpose of the Executive Committee is to assist the Director General in carrying out responsibilities in managing and controlling the administration and business of SFI.

Sources of income for SFI

A 2019 Spending Review of SFI's Research Grants found that the majority of SFI's income over the period 2007-2017 typically came from the Exchequer, either directly through the annual Exchequer allocation to SFI, or indirectly, through co-funding from other publicly funded Research Agencies. Other income sources for SFI, beyond the direct Exchequer allocation and co-funding from other Exchequer-funded Agencies, during these years included EU funding, grant refunds, profit on the disposal of fixed assets, and interest. These do not account for substantial shares of income. SFI does not generate revenue from its investment.³⁴

SFI's annual report for 2021 shows that, in that year, SFI leveraged €234 million in external funding and €164.5 million in non-exchequer funding, from an initial base investment of €222 million. SFI-funded researchers secured over €80 million from the EU, more than €63 million from

³² Information in this paragraph has been sourced almost *verbatim* from the SFI webpage, *What we do.* Available at https://www.sfi.ie/about-us/about-sfi/what-we-do/

³³ Information in this paragraph has been sourced almost *verbatim* from the SFI webpage, *Organisation*. Available at https://www.sfi.ie/about-us/about-sfi/organisation/

³⁴ Information in this paragraph has been sourced almost verbatim from the Department of Public Expenditure and Reform (2019) Spending Review 2019, Analysis of Science Foundation. Available at https://assets.gov.ie/25647/b041ef6d714c4414ac0cbe0eaf329795.pdf

private enterprise, and over €30 million from Enterprise Ireland. Table 1 below provides information on SFI's income for 2021.

Table 1: Extract from SFI Statement of Income and Expenditure and Retained Revenue Reserves. For the year ended 31 December 2021

Income	2021	2020
	(€,000)	(€,000)
Oireachtas Grant	237,429	211,295
Other income	5,488	3,408
Net deferred Retirement Benefit funding	2,076	1,649

Source: SFI Annual Report and Accounts 2021. Available at https://www.sfi.ie/annual-report2021/SFI-Annual-Report-2021.pdf

Provision of funding by SFI

SFI provides grants for researchers from around the world who wish to relocate to Ireland and those already based in Ireland, for outstanding investigators, for conferences and symposia, and for collaboration with industry.³⁵

SFI, as the largest public funder of research, development and innovation activities in the State, is a large expenditure component in the delivery of the Government's strategy for driving innovation in Ireland.³⁶ Details of funding by SFI are available on its website at https://www.sfi.ie/funding/

Responsibility of the Board in relation to accounts³⁷

Section 24 of the Industrial Development (Science Foundation Ireland) Act 2003 (the Act) requires the Board of SFI to keep, in such form as may be approved by the Minister with consent of the Minister for Public Expenditure and Reform, all proper and usual accounts of money received and expended by it. The Director General and senior management of the Foundation are responsible for keeping adequate accounting records which disclose, with reasonable accuracy at any time, its financial position and enable it to ensure that the financial statements comply with section 24 of the Act.

These accounts are approved by the Board and submitted to the <u>Comptroller and Auditor General</u> for audit as soon as possible after the year-end¹⁵. The maintenance and integrity of the corporate and financial information on the Foundation's website is the responsibility of the Director General and senior management. The Board is responsible for approving the annual plan and budget.

Irish Research Council

The <u>Irish Research Council</u> (IRC) is the national funder of "excellent research" across all disciplines, investing in discovery research and in ground-breaking ideas that seek to solve major

³⁵ SFI webpage, Funding. Available at https://www.sfi.ie/funding/

³⁶ Department of Public Expenditure and Reform (2019) <u>Spending Review 2019</u>, <u>Analysis of Science Foundation</u>.

³⁷ Information in this paragraph has been sourced almost *verbatim* from *SFI Annual Report and Accounts 2021*. Available at https://www.sfi.ie/annual-report-2021/SFI-Annual-Report-2021.pdf ¹⁵ The Comptroller and Auditor General (C&AG) is responsible for the audit of accounts across a wide range of State activities in Ireland.

societal challenges and funding a diverse range of "excellent" individual researchers across all career stages.³⁸

The IRC is an associate agency of the Department of Further and Higher Education, Research, Innovation and Science, under the direct aegis of the Higher Education Authority (HEA).³⁹

It should be noted that the IRC was established in mid-2012 following the merger of the Irish Research Council for Humanities and Social Sciences (IRCHSS) and the Irish Research Council for Science, Engineering and Technology (IRCSET). As such its remit at present extends beyond Arts, Humanities and Social Sciences to include Science, Technology and Engineering.

The IRC has the following mandate:40

- To fund excellent research within, and between, all disciplines, and in doing so to enhance Ireland's international reputation as a centre for research and learning.
- To support the education and skills development of excellent individual early-stage researchers and to cultivate agile independent researchers and thinkers, while offering a range of opportunities which support diverse career paths.
- To enrich the pool of knowledge and expertise available for addressing Ireland's current and future needs, whether societal, cultural or economic, and to deliver for citizens through collaboration and enabling knowledge exchange with Government departments and agencies, enterprise and civic society.
- To provide policy advice on postgraduate education, and on more general research matters, to the HEA and other national and international bodies. In giving us this role, Government requested that particular attention be given to the Arts, Humanities and Social Sciences.

The mandate and unique role of the IRC is described as generating a strong value-added dimension in the Irish research and innovation landscape.

The <u>IRC Strategic Plan 2020–2024</u> is intended to underpin the continued delivery of its mandate within the Irish higher education and research system. This plan seeks to consolidate the unique role of the IRC in supporting all disciplines within the Irish research funding landscape and the suite of programmes that underpin this role. Furthermore, the plan articulates how the IRC will maximise its contribution to national progress and ambitions over the coming years.

Provision of funding by IRC

The IRC operates within the policy framework of the Department of Education and Skills and the Higher Education Authority but are independent in its funding decisions. It manages a suite of interlinked programmes funding researchers across all career stages and disciplines, details of which can be found here. The value of IRC's award portfolio was €161.4m portfolio in 2020, with €5.1m leveraged funding from other sources (this includes €1.4 million received from EU funding in relation to CAROLINE and GENDERNET).⁴¹

³⁸ Department of Further and Higher Education, Research, Innovation and Science (2022) *Policy information - Competitive research funding agencies*. Available at https://www.gov.ie/en/policy-information/a355a-competitive-research-funding-agencies/

³⁹ Our strategy | About us | Irish Research Council

⁴⁰ The following information is sourced almost *verbatim* from Irish Research Council webpage, Irish Research Council Strategic Plan 2020-2024. Available at https://research.ie/about-us/our-strategy/

⁴¹ IRC 2020 Annual Report (research.ie)

National research and innovation initiatives

Set out below are some of the main research and innovation initiatives in the State, as reported by DFHERIS.⁴²

Creating Our Future

'<u>Creating Our Future</u>' was a government-led national *brainstorm* that asked the public what role research should play in addressing opportunities, challenges and hopes for the future. Over 18,000 ideas were received in the course of the campaign. The Creating Our Future reports are available here.

Research Classification Ireland (RCI)

RCI is Ireland's first national classification system for public investment in research and experimental development. It is a set of three classifications that will underpin the further development of Ireland's research and innovation system. In terms of type of activity, the RCI proposes to enable research and development (R&D) activities to be categorised according to the type of research effort:⁴³

- basic research,
- · applied research,
- · experimental development.

Research and development expenditure surveys

The DFHERIS is responsible for two surveys assessing the spending on research and development in the government and higher-education sectors. They are:

- Research and Development (R&D) Budget,
- <u>Higher Education Research and Development Survey</u> (HERD).

The results of these surveys are submitted to Eurostat and the OECD through the Central Statistics Office. The data is used to develop various national policies and strategies. The most recent reports of the surveys were published by the DFHERIS in April 2023.⁴⁴ The Research and Development Budget 2022, a report compiled from a survey of government departments and agencies that are active in R&D, showed that Gross Expenditure on R&D (GERD) increased to an estimated €4.7 billion in 2021. This represents an estimated increase of 83% over the 2011 figure of €2.6 billion.

National Challenges Programme

The National Challenges Programme is a €71 million all-of-Government undertaking. It is included in Ireland's 'National Recovery and Resilience Plan' (funded under the EU Recovery and Resilience Facility). The first calls for projects to support the green transition and digital transformation took place during the summer of 2022.⁴⁵

⁴² gov.ie - National research and innovation initiatives (www.gov.ie)

⁴³ gov.ie - National Research Classification System - public consultation (www.gov.ie)

⁴⁴ gov.ie - Minister Harris welcomes the publication of two surveys which reveal record investment in research and development in Ireland (www.gov.ie)

⁴⁵ National Challenge Fund (sfi.ie)

Innovate for Ireland

Innovate for Ireland is a collaboration between industry and the Government. The programme is due to begin in 2023 and will be open to Irish and international students. It is intended that the first phase will attract up to 400 high-quality PhD students to carry out research in Ireland. This research will deal with national and global challenges, including the following:

- · climate change and climate adaptation
- global health and pandemics
- water poverty
- digital society
- cyber security

The Innovate for Ireland programme will include all relevant disciplines, from science, technology, engineering and mathematics to arts, humanities and social sciences.

The programme will also:

- support excellent curiosity-driven research
- include training in innovation, entrepreneurship and leadership
- form relationships between the students and the company sponsors

HEA and research

The HEA provides policy advice to DFHERIS across various aspects of the mission of higher education and supports the performance of the Irish higher education research system. The core funding provided by the HEA to the designated higher education institutions includes, among other things, the following of relevance to research:

- Pays for the salaries of the academics who are therefore in a position to apply for competitive funding from national agencies and international programmes such as Horizon Europe;
- Supports supervision of Masters and PhD students, i.e. Ireland's *pipeline* of future researchers:
- Provides the research support environment which facilitates the development of high quality research funding proposals and the effective management of competitive funding obtained;
- Enables each institution to advance the higher interconnected activities of education and research within a higher education environment.

The HEA's policy advice on higher education research activity in Ireland is grounded in the National Strategy for Higher Education to 2030. 46 Building on this Strategy, the Framework is currently being updated to Higher Education System Performance Framework (2023-2027). The new framework is being developed in the context of the *Higher Education Authority Act 2022*, which sets out the role of the Framework, and associated Performance Agreements with institutions, in assessing and strengthening the performance and accountability of the higher education system. Delivery of this strategic objective links in strongly with the implementation of Impact 2030 Ireland's national strategy for Research and Innovation.

The Irish Research Council, as noted above, provides competitive research funding to support excellent frontiers research across all disciplines and career stages. The IRC, therefore, has an emphasis on early-stage career researchers and promotes diverse career opportunities for

⁴⁶ National-Strategy-for-Higher-Education-2030.pdf (hea.ie)

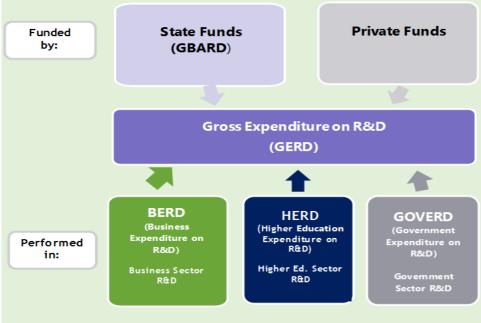
researchers by partnering with employers. The IRC also has an explicit role in supporting research with a societal focus and has established partnerships across Government and civic society.

Financing and expenditure of research and innovation in Ireland

It was noted above that one of the vision statements of Impact 2030 is to have research and innovation expenditure in Ireland reach 2.5% of the domestic economy before end 2030. This section provides some background on the recent quantum of expenditure on research (development) and innovation in Ireland, originating from the government, higher education and business sectors.

Figure 2 below shows the way in which government and private funds combine to allow for a calculation of Gross Expenditure on Research and Development (GERD).

Figure 2: Composition of GERD



Government Budget Allocation for R&D (GBARD)

Government Budget Allocation for R&D (GBARD) in 2022 was 963.7m, an increase of 1.2% expenditure compared with 2021. As a percentage of GDP/GNP/GNI*1 (the GBARD intensity rate), GBARD dipped in 2022 to 0.19% / 0.27% / 0.35%. Figures for 2023 are estimated to rise slightly at 0.20% / 0.28% / 0.37%.47

Figure 3 below provides an overview of these measures for Ireland alongside other members of the OECD. Figure 4 below also provides the Irish totals alongside other members of the EU.

⁴⁷ Department of Further and Higher Education, Research, Innovation and Science (2024) The Research and Development Budget 2022-2023: Government Budget Allocations for Research and Development.

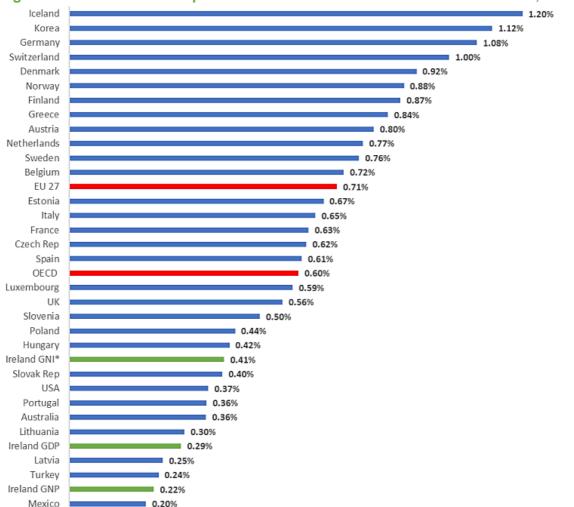


Figure 3: International comparison of Civil GBARD as a % of GDP/ GNP/GNI*, 2021 48

Source: OECD, Main Science and Technology Indicators. Note Civil GBARD excludes Military R&D. 49

Because the modified GNI aggregate is a better approximation of the *size* of the Irish economy, it is an important indicator for fiscal purposes, especially for 'ratio analysis' where it provides significant added value. The Department of Finance has highlighted the shortcomings of the debt-to-GDP ratio as a measure of the debt burden. Now that the modified measure is available, the Department of Finance supplements the Government's European budgetary requirements with debt-to-GNI* figures. Similarly, in the Government's R&D expenditures report, expenditure as a percentage of GNI* are calculated to see the trend over time and to provide a more reliable benchmark against other countries. This is in addition to the calculations as a percentage of GDP and GNP. Modified Gross National Income (GNI*) at current market prices increased from €200bn in 2020, to €234bn in 2021, or expressed as a share of GDP, from 53.6% to 54.9% of GDP. In constant prices, real GNI* has increased by 15.4% in the year 2021. Source: GNI* and De-Globalised Results - CSO - Central Statistics Office

⁴⁸ *GDP* measures the total output of the economy in a period i.e. the value of work done by employees, companies and self-employed persons. This work generates incomes - the total income remaining with Irish residents is the GNP and it differs from GDP by the net amount of incomes sent to or received from abroad. In Ireland's case, the amount belonging to persons abroad has exceeded the amount received from abroad, due mainly to the profits of foreignowned companies, and therefore, GNP is less than GDP.

Gross National Income (GNI) is a very similar concept to that of GNP – the main difference between the two aggregates is that GNI adjusts domestic incomes for subsidies from and taxes paid to the EU.

Modified GNI (or GNI*) 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.

⁴⁹ Department of Further and Higher Education, Research, Innovation and Science (2024) <u>The Research and Development Budget 2022-2023</u>: <u>Government Budget Allocations for Research and Development</u>.

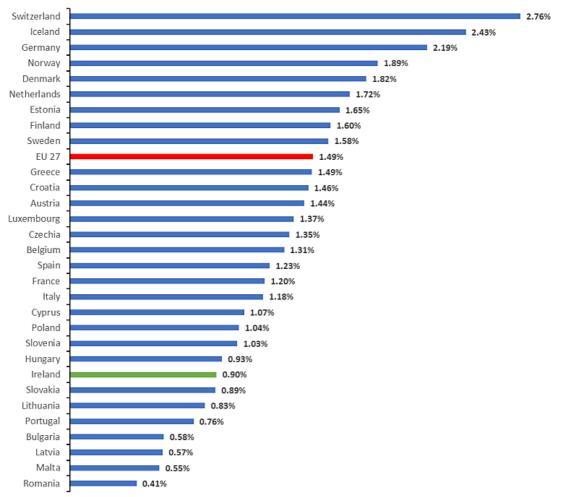


Figure 4: International comparison - Civil GBARD as a % of Total Govt. Expenditure, 2021

Source: Eurostat. Note Civil GBARD excludes Military R&D.

As Figure 4 above shows, at 0.9%, Ireland was below the EU 27 average of 1.49% for GBARD as a percentage of Total Government Expenditure in 2021.

Table 2: GBARD using new Research Classification methodology for 2022.

Table 2. OBARD using new research oldssmouther methodology for 2022.				
RCI – Field of Research	GBARD (€m)	% GBARD		
RCF10 – Natural sciences	193.4	20.1%		
RCF20 – Engineering and technology	139.9	14.5%		
RCF30 – Medial, Health and life sciences	153.8	16%		
RCF40 – Agricultural, veterinary and food sciences	104.5	10.8%		
RCF50 – Social sciences	74	7.7%		
RCF60 – Humanities and the arts	6.3	0.7%		
Various	291.8	30.3%		
Total 2022	963.7	100%		

Source: DFHERIS (2024) The Research and Development Budget 2022-2023: Government Budget Allocations for Research and Development.⁵⁰

This table indicates the GBARD amount broken down using Ireland's research classification system (RCI) which was announced by Minister Simon Harris, TD, in July 2023. See more at gov.ie - Research Classification Ireland (www.gov.ie)

Table 2 above shows the breakdown of investment/expenditure across various disciplines. It is worth noting in the context of debates about 'parity of esteem' and treatment between Science, Technology, Engineering and Maths (STEM) and Arts, Humanities and Social Sciences (AHSS), that AHSS accounts for 8.4% of total expenditure on research and development in 2022. STEM accounts for 61.4%. It should be kept in mind that it is not clear what disciplines are covered by 'various' in the Table above.

Table 3 below shows expenditure across Government departments and agencies on research and development for 2021 and 2022.

Table 3: Government Departments/Agencies expenditure on R&D, 2021-2022

0000 0/ -fT-t-1 0000 0/ -fT-t-1 0/ 0h-		% Change			
Departments and Agencies	2022 Outturn	% of Total 2022	2023 Estimate	% of Total 2023	% Change 2022 -2023
Science Foundation Ireland	217.6	22.6%	225.6	21.0%	3.7%
Higher Education Authority	194.8	20.2%	213.3	19.8%	9.5%
Enterprise Ireland	94.6	9.8%	112.4	10.5%	18.8%
IDA Ireland	73.9	7.7%	75.0	7.0%	1.5%
Teagasc	60.1	6.2%	68.2	6.3%	13.4%
Department of Enterprise, Trade and Employment	56.1	5.8%	84.2	7.8%	50.0%
Department Further and Higher Education, Research, Innovation and Science	49.0	5.1%	50.2	4.7%	2.6%
Health Research Board	48.5	5.0%	51.4	4.8%	5.9%
Irish Research Council	48.1	5.0%	47.7	4.4%	-0.8%
Department of Agriculture, Food and the Marine	20.1	2.1%	24.3	2.3%	21.0%
Marine Institute	13.7	1.4%	14.6	1.4%	6.0%
Environmental Protection Agency	9.6	1.0%	11.3	1.1%	18.1%
Department of Health	8.1	0.8%	9.6	0.9%	17.9%
Department of Foreign Affairs	8.0	0.8%	5.1	0.5%	-36.3%
Sustainable Energy Authority of Ireland	8.0	0.8%	26.3	2.4%	229.0%
Department Environment, Climate & Communications	7.6	0.8%	8.9	0.8%	17.5%
Others	46	4.8%	47	4.4%	3.4%
Total	963.7	100%	1,075	100%	11.6%

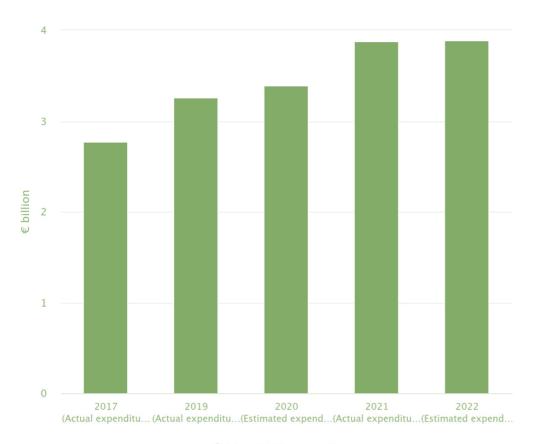
Source: DFHERIS (2024) The Research and Development Budget 2022-2023: Government Budget Allocations for Research and Development.

Business Sector: (BERD – Business Expenditure on R&D)

Moving on from government expenditure on research and development, this section focuses on the results of the Business Expenditure on Research and Development (BERD) Survey. The BERD Survey is a survey of the research and development activities of enterprises in Ireland and other EU Member States. Data are collected every two years by the Central Statistics Office (CSO)

Results from the 2021-2022 Business Expenditure on Research and Development (BERD) survey show that €3.88bn was spent on R&D activities by enterprises in Ireland in 2021. Figure 5 below shows total expenditure by business on R&D in 2017, and from 2019 to 2020.⁵¹

Figure 5: Total Business expenditure R&D (BERD) 2017, 2019-2022



Total R&D expenditure

Source: Business Expenditure on Research and Development 2021-2022 - CSO - Central Statistics Office

Table 4 below shows the expenditure of business on R&D in 2017, and from 2019 to 2020. It also breaks the overall totals down to expenditure by small, medium and large enterprises.

Table 4: Total R&D expenditure by enterprise size class, 2017, 2019 and 2021 (€'000)

Year	All enterprises	Small (<50 persons)	Medium (50-249 persons)	Large (250+ persons)
2017	2,770,214	424,726	594,613	1,750,876
2018	3,256,295	465,143	637,811	2,153,341
2019	3,879,007	635,829	814,696	2,428,481

Source: Business Expenditure on Research and Development 2021-2022 - CSO - Central Statistics Office

⁵¹ It should be noted that Business Expenditure on Research and Development (BERD) is not set out in the 2022 in the detail presented in the 2021 report.

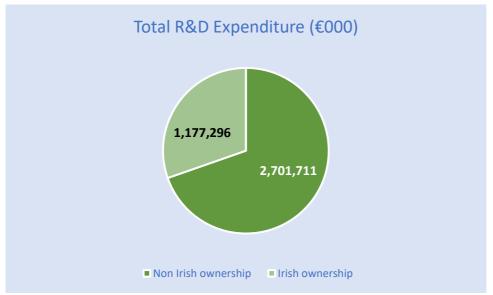
Table 5 below provides a breakdown of expenditure by enterprises according to whether they were Irish or Non-Irish owned. Figure 6 provides a graphical illustration of the data contained in Table 4.

Table 5: Nationality of ownership of total research and development expenditure 2021

Nationality of ownership	Actual Total R&D Expenditure
Non-Irish ownership	2,701,711
Irish ownership	1,177,296
All nationalities of ownership	

Source: Business Expenditure on Research and Development 2021-2022 - CSO - Central Statistics Office

Figure 6 Graphical illustration of proportion of Irish and non-Irish owned expenditure on R&D



Source: Business Expenditure on Research and Development 2021-2022 - CSO - Central Statistics Office

To put this expenditure into perspective, the following figure shows the proportion of business expenditure in Ireland as a share of Gross Expenditure on Research and Development (GERD) in 2021 relative to international comparisons.

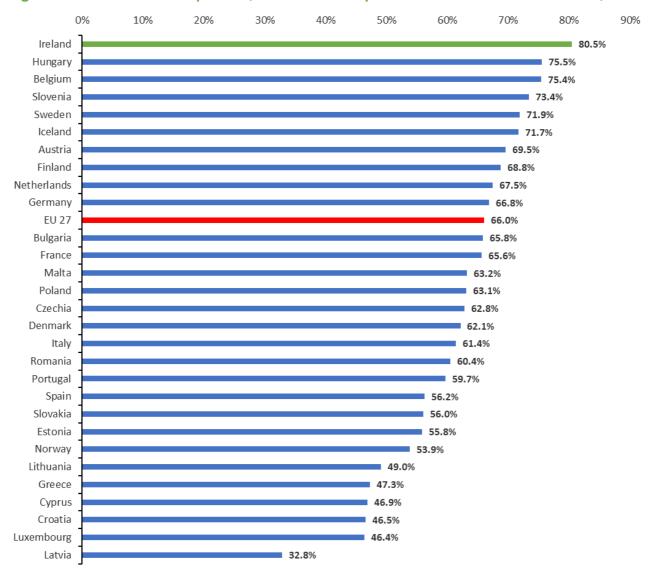


Figure 7: International comparison, share of GERD performed in the Business Sector, 2021

Source: Eurostat, cited in DFHERIS (2024) <u>The Research and Development Budget 2022-2023: Government Budget Allocations for Research and Development.</u>

Higher Education Sector: (HERD - Higher Education R&D)

The Higher Education Research and Development (HERD) Survey is a survey of the research and development activities of third level institutions in Ireland and other EU Member States. Until 2020, this biennial survey was led by the Department of Enterprise, Trade and Employment. From 2020, the HERD Survey is being undertaken by the Department of Further and Higher Education, Research, Innovation and Science and its most recent publication was in April 2023.

Table 5 below shows a summary of the main results from the survey over the period 2018 to 2020.

Table 6: Summary of key results of HERD survey, 2018-2020

	2018	2020
Higher education expenditure on R&D (HERD)	688.4m	742.1m
HERD as a % of GNP	0.27%	0.27%
Ireland's rank out of 37 countries	30	30
Total researchers in HE Sector (FTE)	9,393	11,821

Researchers per 1000 labour force - Ireland's rank out of 32 countries	7	10
Percentage of HERD financed by industry	7.0%	6.2%

Source: DFHERIS HERD Data 2023 and OECD, Main Science and Technology Indicators, December 2022⁵²

From the HERD survey also, Figure 7 below shows expenditure on higher education expenditure on research and development for the period 2010 to 2020 in Ireland and the EU27 and that Ireland's expenditure, whatever measure is used, is less than that seen across the EU27.

Figure 8: HERD as a percentage of GNP/GDP/GNI*, 2010-2020, Ireland and EU27



Source: CSO, OECD, Main Science and Technology Indicators and DETE calculations, December 2022

⁵² gov.ie - Higher Education Research and Development Survey: 2020 to 2021 (www.gov.ie)

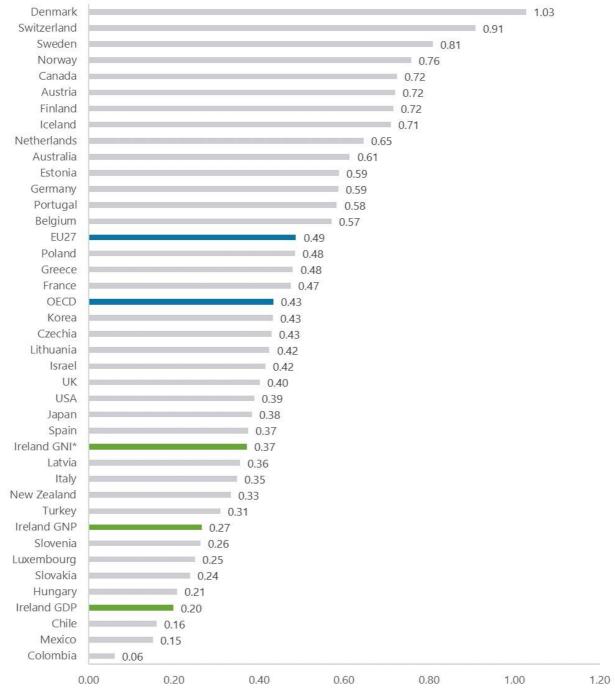


Figure 9: HERD as a percentage of GDP (& Ireland GNP/GNI*) - 2020 or latest available data

Source: OECD, Main Science and Technology Indicators and DETE calculations, December 2022

Figure 8 provides an illustration of Ireland's higher education expenditure on R&D relative to member states of the OECD. It again shows that regardless of measure Ireland's expenditure is behind the proportions seen in the EU27 and also OECD member States.

Finally, Figure 9 below shows the increasing trend of Irish expenditure (gross, government, business and higher education) on R&D from 2010 to 2020, with estimates for 2021.

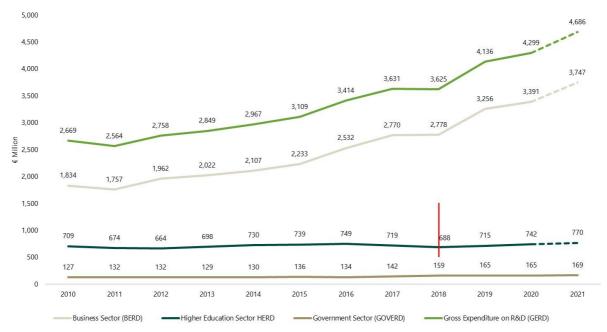


Figure 9: GERD (Government + Business + Higher Education Sectors)

Source: CSO and DFHERIS (Note: BERD figures for 2020 and 2021 are estimates. The HERD figure for 2021 is estimated.)

In summary then, GERD is the sum of R&D expenditure in the business, higher education and government sectors. The details for 2022 are the following:

- The highest expenditure on R&D is, like previous years, in the business sector where an estimated €3,887m was invested in research and development in 2022. There has been an upward trend in R&D expenditure in the business sector since 2012. It should be noted this expenditure is not government expenditure and the businesses responsible for the vast majority of the expenditure are not Irish owned business.
- The most survey of research and development expenditure in the higher education sector puts the expenditure at €742.1m for 2020.⁵³
- The Government sector is the smallest sector with €179m of research being conducted in government institutions such as Teagasc and the Marine Institute in 2022. (Government sector figures also include an estimate for government funded and hospital performed R&D of €35 million).

Policy issues relevant to the Bill

The upcoming will discuss the outcome of the pre-legislative scrutiny (PLS) of the Bill and examines the extent to which the PLS impacted on the published Bill before the Houses. Before that, this section looks at some of the policy issues of relevant to the Bill that were discussed during the hearings and submissions made by stakeholders to the Joint Committee on Education, Further and Higher Education, Research, Innovation and Science (EFHERIS) as part of its PLS. The rationale for approaching the policy analysis of the Bill this way is that most if not all of the stakeholders who participated in the PLS were particularly well placed, professionally and/or personally, to highlight the key policy issues that inform the broader policy context in which the Bill

⁵³ It should be noted here that there was a change in the methodology used in 2019,

is situated.⁵⁴ This section is structured around the main policy relevant themes arising in the PLS hearings.

Definitions and interpretation of terms

In the *General Scheme of the Research and Innovation Bill*, the following definitions of research were set out:

- "applied research" means original investigation undertaken in order to acquire new knowledge directed primarily towards a specific practical aim or objective
- "interdisciplinary research" means a mode of research which combines the knowledge and methods of different disciplines
- "research" means creative and systematic work undertaken in order to increase the stock of knowledge (including knowledge of humankind, culture and society) and to devise new applications of available knowledge.⁵⁵

In terms of defining 'research', it should be noted that in the <u>Industrial Development (Science Foundation Ireland) Act 2003</u> (as amended in <u>2013</u>), the primary legislation for SFI, the following definition is provided:

""oriented basic research" means research that is carried out with the expectation that it will produce a broad base of knowledge that is likely to form the background to the solution of recognised or expected current or future problems or possibilities"

"'applied research' means original investigation undertaken in order to acquire new knowledge directed primarily towards a specific practical aim or objective"

In view of the above, it is worth looking briefly at the definitions used for different forms of research by a sample of reputable international bodies. To begin with, the OECD Frascati Manual has the following definitions:⁵⁶

"Applied research is original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective."

"Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view."

"Oriented basic research is basic research carried out with the expectation that it will produce a broad base of knowledge likely to form the basis of the solution to recognised or expected current or future problems or possibilities."

⁵⁴ For instance the stakeholders appearing at and making submission to Joint Committee during PLS included Science Foundation Ireland, the Irish Research Council, the Higher Education Authority, the DHERIS, senior officials working in higher education involved in management of institution wide research and innovation, Teachers Union of Ireland, Irish Federation of University Teachers, Irish Research Staff Association, Technological Higher Education Association, Irish Universities Association, Higher Education Colleges Association, Irish Congress of Trade Unions and Postgraduate section of Union of Students of Ireland.

⁵⁵ In addition to definitions of research, allied terms used in the body of the General Scheme are not defined as to their meaning in the context of the General Scheme's provisions. These include: "research excellence", "fundamental research", "applied research", "excellent research", "basic research". The explanatory notes accompanying the General Scheme state the definition for "research" is that used in the <u>Higher Education Authority Act 2022</u>. It was not clear where the other definitions of research used in the General Scheme originated from.

⁵⁶ Frascati-2015-Glossary.pdf (oecd.org)

"Pure basic research is basic research carried out for the advancement of knowledge, without seeking long-term economic or social benefits or making any effort to apply the results to practical problems or to transfer the results to sectors responsible for their application."

The US National Institute for Health uses the following definition of basic research:

"a systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards processes or products in mind." ⁵⁷

Eurostat state that basic research is:

"experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view." ⁵⁸

Moreover, Eurostat adds the following:

"Basic research [analyses] properties, structures, and relationships with a view to formulating and testing hypotheses, theories or laws.

"The results of basic research have no direct or immediate commercial benefits, but are usually published in scientific journals or circulated to interested parties. Occasionally, basic research may be "classified" for security reasons.

Basic research can be split into two categories:

- pure basic research is carried out for the advancement of knowledge, without seeking long-term economic or social benefits or making any effort to apply the results to practical problems or to transfer the results to sectors responsible for their application;
- oriented basic research is carried out with the expectation that it will produce a
 broad base of knowledge likely to form the basis of the solution to recognized or
 expected, current or future problems or possibilities."

Thus, at the hearings and in the submissions in the PLS process on the General Scheme of the Bill, a number of stakeholders questioned the use of definitions in the draft Bill. In this regard, Professor Helen Kelly-Holmes, a professor of applied language at the school of modern languages and applied linguistics at the University of Limerick, stated in evidence to the Committee on 16 May 2023:⁵⁹

"Some of the definitions in the Bill did give rise to a little bit of concern but I think they can be easily fixed. The message has definitely gotten across that some of these are problematic. The definition of research is very important but it is about excellence and contributions to knowledge, and these apply to all of the disciplines. That kind of inclusive language is very important. As my colleagues said, the recognition of different types of

⁵⁷ "What does basic research mean?" | NIH: National Institute of Allergy and Infectious Diseases

⁵⁸ Glossary: Basic research - Statistics Explained (europa.eu)

⁵⁹ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

research is also important in that not all research needs to be applied or the application may not be immediately seen."

At the same meeting of the Committee, Professor of Cellular physiology, Conway Institute, University College Dublin, Cormac Taylor stated that:⁶⁰

"There is no question that researchers at the coalface have felt like they are in silos and very much separated from each other according to very strict definitions of what constitutes research and applied orientated research. Even the strange phrases like "orientated basic research" started to appear. There is a real need for clear language in the Bill. If anything else, there should be a glossary at the start which very much defines what we mean by these topics."

Dr. Lisa Keating, director of research and innovation at the Irish Universities Association stated the following in this regard in her evidence to the Committee on 9 May 2023:⁶¹

"If the definitions are ambiguous, they can be interpreted differently as the agency is operationalised. I am not supposing that would happen but we need that clarity. We need to be clear that it is across all disciplines, that it is fundamentally about curiosity-driven research as well as the priority areas we might need.

At the same hearing, Professor Willie Donnelly, director of research, development and innovation at the Technological Higher Education Association (THEA) made the following contribution:⁶²

"My concern is that these definitions are really out of date. The rate at which knowledge is created and impacts upon society is such that the discussion about whether something is fundamental, applied or strategically oriented does not add any value to the discussion. The focus has to be on supporting quality research that has some impact on society."

Professor Donnelly added further the following:

"The second key point relates to the definitions of excellence. The problem is not really with that definition. It is with the idea of how excellence is defined. If there is a narrow definition, then a narrow set of projects will be funded and its value for Ireland will be limited. Even within the scientific community, the idea that everything is defined in terms of peer-reviewed journals is gone. None of us consider that anymore. It is important that this legislation takes time to define what it means by excellence and impact and how we support the broad church for the benefit of society."

In the Bill as initiated, the following is provided as the definition/interpretation of research solely – specific categories of research (applied, fundamental basis etc.) are not now referred to:

"research" means creative and systematic work in any discipline that is undertaken in order to increase the stock of knowledge (including knowledge of humankind, culture and society) and to devise new applications of available knowledge"

⁶⁰ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

⁶¹ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the *Research and Innovation Bill* 2023, 09/05/2023

⁶² Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the *Research and Innovation Bill* 2023, 09/05/2023

The concept of excellence when referred to research is not defined in the General Scheme or in the Bill itself. Where excellence or excellent is referred to in the Bill, it is typically placed alongside 'standard' or 'quality', which is a development when compared to the General Scheme. In this regard, the Bill provides the following interpretation:⁶³

"standard and quality", in respect of research and innovation, means the standard and quality of the research and innovation assessed and evaluated by reference to international good practices in the relevant field of activity or discipline of research and innovation, including adherence to policies and good practices regarding ethics, integrity and the conduct of research and innovation in that field or discipline;"

Most of the key research related interpretations, except that for 'innovation', set out in the Bill have been either newly inserted or amended to some extent from those previously provided in the General Scheme. The definition in the Bill for 'innovation' remains however as follows:

"innovation" means the development and use of new ideas, methods, products, processes, policies and services where they have not been used before

Investment and funding of research (and innovation).

Impact 2030 is the major policy framework in which the *Research and Innovation Bill 2024* and thus Taighde Éireann is situated.⁶⁴ As noted above, Impact 2030 stated that Government investment was €867 million in research and innovation in 2020. Impact 2030 states as part of its vision that investment in research and innovation will rise to 2.5% of the domestic economy by 2030. The 2.5% of the domestic economy here (as measure by GNI*) would include not only government investment but also expenditure on research and innovation in Higher Education and private business expenditure.

The Bill does not reference this point directly. However, it does provide, in section 22, a standard provision for advances to Taighde Éireann by the Minister for FHERIS of moneys provided by the Oireachtas, with the consent of the Minister for Public Expenditure, National Development Plan Delivery and Reform, "for the purposes of expenditure by the Agency in the performance of its functions". ⁶⁵ Part 3 of the Bill thereafter provides for, among other things, Taighde Éireann's arrangements in respect of its funding of research and innovation.

A number of witnesses at the PLS hearings of the Committee noted that the funding of Taighde Éireann is a key element if the new agency is to fulfil its remit. The context of the comments on funding for the agency and for research and innovation more broadly related to the comparatively low level of public funding for research and innovation in Ireland compared with our European counterparts. In this respect, some of the secondary material outlined above has shown how Ireland ranks in expenditure terms relative to other European States across as a proportion of GDP, GNI or modified GNI. It also shows that Ireland shows the highest proportion of its pooled research and development expenditure coming from the business sector, the majority of which is not Irish owned, when compared to other jurisdictions. Some of the statements by committee

⁶³ Research and Innovation Bill 2024 (oireachtas.ie)

⁶⁴ According to the <u>Explanatory Memorandum</u> for the Bill, "The creation of a new statutory research funding agency forms part of *Impact 2030, Ireland's Research and Innovation Strategy*, which was approved by Government in April 2022 (S180/20/10/1566H)."

⁶⁵ Research and Innovation Bill 2024

witnesses were made in the context of the aim set out in Impact 2030, that 2.5% of the domestic economy would be 2030 spent on research and development.

At the Joint Committee's PLS hearings, Lisa Keating, director of research and innovation at the Irish Universities Association made this point in her evidence on 9 May 2023:⁶⁶

"The total Government spend, which is how much public funding is put into research out of all public funding, is just about half of the European average. Looking at it as GDP, GNP, or GNI*, it is about half the average of what everybody else is doing. The higher education research and development, HERD, survey shows investment is at the bottom of the table. It will be impossible to realise the ambitions that we have for this new agency and research in Ireland if we do not invest"

Similar views were expressed by a number of other stakeholders at the PLS hearings. In this regard, Professor Philip Nolan, Director General of SFI and Chief Executive Officer (designate) of Taighde Éireann made the following statement to the Joint Committee:⁶⁷⁶⁸

"...if the ambitious objectives of the Government as outlined in Impact 2030 are to be met, we highlight the following issues. The establishment of the new agency must be accompanied by the required step change in investment in research and innovation towards the strategic target of 2.5% of the domestic economy as outlined in Impact 2030. If we do not do that, we will leave ourselves fundamentally unprepared for the digital and green transitions we must deal with in the next two decades."

In its explanatory note published on 30 May 2023, following the Committee's PLS hearings, DFHERIS stated that research funding commitments are not suitable for inclusion in legislation given that resourcing is a matter for the annual estimates process. Nevertheless, it notes that the establishment of the Department itself is "a clear signal of the importance attached by the Government to skills, knowledge, research and innovation as drivers of national and regional economic recovery and development". ⁶⁹ The Department's explanatory note adds that as the national research and innovation strategy, Impact 2030, set out: ⁷⁰

"both core and competitive public research play a critical role in interdisciplinary research and in strengthening Ireland's fundamental research and knowledge base. Investment in public research leverages very significant investment from external sources including the enterprise sector".

Governance and representation

A range of issues were raised under the broad theme of governance and representation in respect of the operations and structures of Taighde Éireann.

⁶⁶ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁶⁷ Minister Harris appoints Professor Philip Nolan as CEO Designate of the Research and Innovation funding agency -MerrionStreet

⁶⁸ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the *Research and Innovation Bill* 2023, 16/05/2023

⁶⁹ gov.ie - General Scheme of the Research and Innovation Bill – Explanatory note (www.gov.ie)

⁷⁰ gov.ie - General Scheme of the Research and Innovation Bill – Explanatory note (www.gov.ie)

In the Bill, Part 2's Chapter 3 provides for composition and operations of the Board of Taighde Éireann. Among other things, Chapter 3, in section 16(2), provides that the Board will have 12 members (a chairperson and 11 ordinary members) and that all appointments will be made by the Minister for FHERIS. In this regard, it provides that members of the Board will "have sufficient experience and expertise relating to matters connected with the functions of the Agency to enable them to make a substantial contribution to the effective and efficient performance of those functions"⁷¹. Specifically, in section 16(3), the bill also provides that one of the members to be appointed to the Board will be required to have experience and expertise relating to enterprise, and will be nominated for by the Minister for Enterprise, Trade and Employment.

In the PLS hearings, the issue of **representation** on the Board of Taighde Éireann was specifically raised by a number of the stakeholders. Two key issues emerged. The first relates to, as suggested above, what the General Scheme (and now the Bill) states in respect of the Minister appointing Board members and the use of the public appointments service as reported by the Department in the PLS hearings and by the Department in its May 2023 explanatory note on the proposed legislation.⁷² The second relates to the requirement that one member have experience in enterprise and not specifying similar requirements for but not naming of other stakeholder sectors. On this point, Dr. Lisa Keating made the following comments at the Committee hearing of 9 May 2023:⁷³

"The provisions in the Bill that outline the governance structures set a good framework for the agency but it is essential that there is sufficient diversity in the governance model to be fully reflective of Ireland's research ecosystem and to include a broad spectrum of individuals with expertise reflecting the national and international research and innovation systems. We propose that a competency-based approach is used, in line with best governance practice, to ensure that the agency has the capacity to fund research excellence across all disciplines and career stages, and for that research to "make as big a difference as possible to as many people as possible", as recently stated by the Minister, Deputy Harris.

The Bill explicitly provides for enterprise interests to be included on the board. We welcome this but it does not sufficiently address the broader societal and environmental scope of the agency. We suggest that the committee recommends that other research end-users are also represented on the board to ensure that the wider objectives of the Bill are fully reflected in the governance structure".

As well as representing higher education, Professor Willie Donnelly made the case for also representing the diversity among higher education institutions in the State: ⁷⁴

"it is important that the voices of the recipients are heard in the make-up of the board as well. If they are not there and are not heard, it would be very easy to ignore the needs of that sector to the detriment of society. The problem is that you cannot have every discipline on the board because it would become too weighty but you can have people who have an

72 gov.ie - General Scheme of the Research and Innovation Bill - Explanatory note (www.gov.ie)

⁷¹ Research and Innovation Bill 2024

⁷³ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁷⁴ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

appreciation and understanding of the various disciplines. In terms of what we call the traditional universities, the new universities need a presence on the board to give a perspective."

At that Committee hearing, Mr. Frank Jones made the case for the inclusion of ICTU on the Board, Mr. Tim Conlon cited the importance of the HEA being represented on the Board, while Dr. John Walsh underlined the importance that "that the majority of members of the board should be involved in research at various levels". This point, including reflecting the principle of parity of esteem and competencies of board members, was also echoed in evidence to the Committee given by Mr. Waqar Ahmed, Dr. Richard Vance, Ms. Annette Dolan, Professor Daniel Carey, Professor Philip Nolan among others.

In response to Committee questions, Dr. Deirdre Lillis of DFHERIS stated:⁷⁶

"We are listening very carefully to these deliberations in respect of the make-up of the board. We have to strike a balance between that sort of governance piece, which one would expect in any State agency, and ensuring the right voices from the research and innovation sector are also in the room."

Consultation

In keeping with the notion of representation and participation by members of and stakeholders in the research and innovation system in the State, a number of contributions at the PLS hearings advocated for more robust or clearer system of consultation.

It should be noted that DFHERIS has stated that it oversaw a "programme of stakeholder consultation...since the development of Impact 2030" and moreover that such consultation "was integral to the development of that whole-of-government strategy on Irish research and innovation."⁷⁷ This issues is also reported

In the Bill, specific provision for a consultation in relation to a broad range of matters concerning the Agency and research/innovation is not made. However, sub-section 23(3) makes specific provision that Taighde Éireann in the preparation of its Corporate plan will consult with the Minister for FHERIS, the HEA, Enterprise Ireland and the IDA. This sub-section also states, in s23(3)(b), that Taighde Eireann, in preparing its Corporate Plan, "may consult with such other persons or bodies it considers appropriate".

Professor Kelly-Holmes, at the Committee hearing of 16 May 2023, suggested that a broader list of named stakeholders beyond those in enterprise should be considered.⁷⁸ Annette Dolan noted that the Bill:

"should specifically include a reference to consultation with higher education institutions...researchers and citizens. It should also explicitly have regard to EU research

⁷⁵ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁷⁶ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

⁷⁷ gov.ie - Minister Harris welcomes Government approval to publish Research and Innovation Bill 2023 (www.gov.ie)

⁷⁸ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the *Research and Innovation Bill* 2023, <u>16/05/2023</u>

policy and priorities. We recommend that a reference to the requirement for broader consultation with HEIs, researchers and citizens be included...."⁷⁹

Mr. Waqar Ahmed in his evidence to the Committee stated the following:80

"It is necessary to include researchers from all areas and to create an equal system. There is no need to create a two-tier system for researchers funded by European research foundations and those funded by our research foundations. As there is no representation, we fear that the corporate plan will be reviewed after five years. Again, there is no mention of consultation with stakeholders and there is not even an independent review provided for in the current legislation. We are concerned about how we are defined, the lack of representation we have in these agencies and the absence of the engagement we have sought. I reiterate that this Bill was a complete surprise to us. There was no public or structured consultation as to what we need or why we need this Bill. We then have to respond to it. We are always catching up."

The need for more structured consultation on and by Taighde Éireann was also made over the course of the Committee meetings by Dr. John Walsh and Dr. Richard Vance.⁸¹

Dr. Deirdre Lillis of DFHERIS made the following comments about future consultation in respect of the forthcoming Bill:82

"Further structured public consultation is planned. It will be led by the CEO designate of the new agency once appointed."

And Dr. Lillis added later in the meeting the following:

"We will be doing a structured public consultation as well to get the views of people. It is really about the overall mix and how the information feeds in."

Researchers and research careers

One of the objectives for Impact 2030 and by inference, of Taighde Éireann, is to make Ireland attractive to top research talent. Impact 2030's Chapter 4 is entitled "Talent at the Heart of the Research and Innovation Ecosystem". 83 84 This Chapter, among other things, states:

"The availability of R&I talent will be a key component in addressing the disruptive impacts of digitalisation, adopting climate-friendly business practices, driving new scalable start-ups, and winning FDI in the future. As is the case globally, a minority of early-career researchers will remain in academia. A diversity of attractive career paths is crucial, both for the

⁷⁹ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, <u>09/05/2023</u>

⁸⁰ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁸¹ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁸² Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

⁸³ Impact 2030- Ireland's Research and Innovation Strategy (www.gov.ie)

⁸⁴ As noted above, the development of career pathway for researchers is cited in the current Programme for Government.

organisation and the individual, in order to address career precarity and to maximise the impact that researchers can make on so many organisations in so many ways"85

In the Bill, section 9 sets out the Functions of Taighde Éireann. Therein sub-section 9(f)(1) states the following as one of the functions of the agency:

"(f) promote the attracting to the State of research and innovation teams of an excellent standard, and individuals with an interest in research and innovation of an excellent standard, with a view to their carrying out research and innovation in the State" 86

The rhetoric of Impact 2030 and the aims of the Taighde Éireann' functions in respect of attracting 'talented' researchers was questioned in the PLS hearings for the General Scheme of the Bill by a broad range of the stakeholders who attended hearings and or made submissions. The issue of precarious employment among researchers was a key theme raised during the Committee's hearings. They contrasted this rhetoric with the current practice and also the experience of researchers, especially those associated with Higher Education Institutions.

In this context, Dr. Richard Vance, representing the Irish Research Staff Association, stated the following:

"One of the key interventions needs to be setting targets specifically to reduce the precarious employment the sector relies on. If people are in precarious employment, they cannot build sustainable research portfolios and then there is a loss of return on investment in the sector. Thus, the first priority is to set a target and monitor it using open data to see if it is met. That should also be linked to career progression streams with parity, that is to say, not just the traditional academic stream but also the research-focused stream and a teaching-focused stream so researchers can filter up through the system and retain all the expertise within that system. That avoids a system of the kind Mr. Jones mentioned where a person might spend ten, 15 or many more years languishing on various contracts without reaching his or her potential or bringing his or her expertise into the system and on upwards. The priority should be linking that to a specific instrument that sets a target for reducing precarity."⁸⁷

Anette Dolan of the TUI outlined her sense of the role of R&I in responding to the issues of precariousness among researchers:⁸⁸

"The proposed new agency...should support research from the bottom up, supporting researchers from all disciplines and at all stages of their careers. Research simply cannot happen without researchers. However, in the sector TUI represents, there is an unacceptable level of precarious contracts with inferior terms and conditions of employment. Our longstanding claim for pensions for researchers has not yet been sanctioned."

⁸⁵ Research and Innovation Bill 2024 (oireachtas.ie)

⁸⁶ Research and Innovation Bill 2024 (oireachtas.ie)

⁸⁷ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the *Research and Innovation Bill* 2023, 09/05/2023

⁸⁸ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

In addition Dr. John Walsh, representing the Irish Federation of University Teachers, pointed in particularly to the situation of early career researchers (post-doctoral researchers typically):⁸⁹

"There is real anxiety and concern about unintended consequences of the Bill among our members. Early career researchers, particularly those on precarious contracts or working in precarious conditions, are particularly vulnerable to any change in research funding practices."

Parity of esteem between disciplines

The issue of parity of esteem between disciplines (and it should be added researchers at different stages of their career) was a prominent feature of the PLS hearings on the General Scheme of the Bill and was addressed by most of the witnesses presenting evidence.

In a submission to the Committee of 23 May 2023 from Professor Jane Ohlmeyer of TCD on behalf of a large group of academics, following the Open Letter of 24 April 2023 to the Minister for FHERIS, the following text expands on this issue:⁹⁰

"[A] stand-alone AHSS Council would create an imbalanced structure and clearly begs the question as to whether there should also be a Science Technology Engineering and Mathematics (STEM) council in order to ensure balance and fairness of representation across disciplines."... "Rather than replicating the past, we should look towards the future and, drawing inspiration from EU funding agencies, build a Federated Agency with a 'bottom up' council for all disciplines. The focus should be on frontier research and AHSS should have a ringfenced, healthy, minimum budget. A 'top down' council could focus on oriented research and innovation across all disciplines, within an overarching body that has a strong overarching policy and infrastructure function. We would welcome an opportunity to present a more detailed proposal of this Federated Agency, which draws on best international practice."

By means of context, as noted in respect of Impact 2030, parity of esteem is explicitly noted in the text of the strategy:⁹¹

"[T]o place Arts, Humanities and Social Sciences research on an equal and statutory footing to Science, Technology, Engineering and Mathematics research ensuring parity of esteem, access to research funding and greater consistency across the research community. In addition, it will strengthen the role of the Arts, Humanities and Social Sciences in contributing to challenge-based research, which is essential to addressing complex problems"

In addition, the announcement by Minister Harris in respect of the appointment of Chief Executive Office Designate of Taighde Éireann states that the "establishment of the agency also ensure parity of esteem for the IRC's critical mission of supporting researchers at all career stages". 92

⁸⁹ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁹⁰ submission to the Committee of 23 May 2023 from Professor Jane Ohlmeyer of TCD on behalf of a large group of academics, following Open Letter of 24 April 2023 to the Minister for FHERIS

⁹¹ Government of Ireland, 2022, Impact 2030: Ireland's Research and Innovation Strategy, p.15

⁹² gov.ie - Minister Harris appoints Professor Philip Nolan as CEO Designate of the Research and Innovation funding agency (www.gov.ie)

The Press Release accompanying the announcement giving Taighde Éireann its proposed name also make reference to the issue:93

"Taighde Éireann - Research Ireland will capitalise on the recognised strengths of the Irish Research Council and Science Foundation Ireland in driving world class research and innovation in Ireland.

The new agency will fund research and innovation excellence in all disciplines across the spectrum of Arts, Engineering, Humanities, Mathematics, Science, Social Sciences, Technology and others.

The Research and Innovation Bill 2023 will place Arts, Humanities and Social Sciences research on a statutory footing for the first time."

However, despite the above, there is no direct statement or language in respect of parity of esteem in the text of the Bill.

During the Committee's hearings, parity of esteem was the subject of questions on the part of Committee Members' and was raised in part or in total by the following witnesses: Dr. Lisa Keating; Mr. Frank Jones; Dr. John Walsh; Dr. Richard Vance; Mr. Waqar Ahmed; Ms. Annette Dolan; Professor Philp Nolan, Profession Helen Kelly-Holmes; and Professor Cormac Taylor.

In these contributions, parity of esteem not only refers to Arts, Humanities and Social Sciences and Science, Technology, Engineering and Mathematics but also to types of research (fundamental versus applied) and researchers at different stages of their careers.⁹⁴

In comments at Committee hearing on 16 May 2023, Dr. Lillis of DFHERIS stated the following:95

"It is clear from the consultations, however, that we need to do more to ensure parity of esteem between research areas, to promote equality, diversity and inclusion, to ensure that the voice of our early-career researchers, in particular, is heard, and to promote interdisciplinary and challenge-based research."

At the same hearing Professor Philip Nolan made the following comment:96

"It is probably timely to remind people that scientists are human beings and citizens first. We place equal value on the humanities and social sciences as we do on science and engineering. Professor Carey's point is really material. Who defines the big questions that we are going to address as a society? Who imagines what the future might hold and who teaches us the lessons of the past? I would be emphatic that in shaping a research agenda for the future we do so as citizens. In a professional sense, that requires that we sit with our colleagues in the social sciences and humanities and discuss what to do about the climate crisis. That is a collective question rather than a simple, scientific, linear progression. We

⁹³ Minister Harris announces Taighde Éireann-Research Ireland as the official name of the new Research and Innovation funding agency - MerrionStreet

⁹⁴ See for instance summing up comments by An Cathaoirleach Gníomhach, Deputy Marc Ó Cathasaigh at the Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 09/05/2023

⁹⁵ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

⁹⁶ Oireachtas Joint Committee on EFHERIS, Pre-legislative scrutiny of the General Scheme of the Research and Innovation Bill 2023, 16/05/2023

have to imagine different ways of being and working so absolute parity of esteem is essential."

The issue of parity of esteem is also addressed in the Explanatory Note on the General Scheme published by DFHERIS on 30 May and states, among other things, that:⁹⁷

"the creation of the agency itself, which will include all disciplines in its statutory basis, embeds the notion of parity of esteem in the legislation. The establishment of the agency in statute also ensures parity of esteem for the IRC's critical mission of supporting researchers at all career stages. It will make competitive funding awards across all disciplines and of varying sizes in a way that complements the Higher Education Authority's core investment in the higher education institutions. This is the optimum way of ensuring true parity of esteem of for research in the Arts, Humanities and Social Sciences and significantly broadening the access to researchers in these areas to an improved range of research funding programmes."

Pre-legislative scrutiny of the General Scheme of the Bill

The Government approved the drafting of the *Research and Innovation Bill* on 5 April 2023. The General Scheme of the *Research and Innovation Bill 2023* was published by the Minister for FHERIS, Simon Harris, T.D., on 6 April 2023. The <u>General Scheme of the Bill</u> was subsequently referred to the Oireachtas Joint Committee on Education, Further and Higher Education, Research, Innovation and Science (EFHERIS) for the purpose of Pre-legislative scrutiny (PLS), in line with Dáil Standing Order 174A. The General Scheme of the *Research and Innovation Bill* was comprised of 9 parts, which in turn account for 56 Heads (of Bill).

⁹⁷ gov.ie - General Scheme of the Research and Innovation Bill - Explanatory note (www.gov.ie)

⁹⁸ It should be noted that the General Scheme of the Research and Innovation Bill was not included in the <u>Government's</u> Legislative Programme for the Spring Session 2023.

⁹⁹ gov.ie - Minister Harris welcomes Government approval to publish Research and Innovation Bill (www.gov.ie)

¹⁰⁰ The previous Standing Order 173 dealing with Pre-legislative consideration of Government Bills on foot of Government motions in each House has been deleted and replaced in September 2022 with Standing Order 174A which states: "(1) A member of the Government or a Minister of State shall give the draft heads or general scheme of a proposed Bill (in this Standing Order referred to as the "heads/scheme") to the Committee empowered under Standing Order 95 to consider Bills published by that Minister (the "relevant Committee") for the purposes of pre-legislative scrutiny ("scrutiny"). (2) Where the heads/scheme are not provided pursuant to paragraph (1), and the Minister wishes to initiate the proposed Bill pursuant to Standing Order 174, they shall table a motion on notice in the following terms, and the proposed Bill may be initiated where the Dáil agrees the motion: "That initiation of the [insert short title of Bill] may proceed pursuant to Standing Order 174 notwithstanding that the draft heads or general scheme of the Bill have not been given to the Committee empowered under Standing Order 95 to consider Bills published by the [insert title of Minister]." Among other things Standing Order 174A also states that "Where a Minister gives the heads/scheme to a relevant Committee pursuant to paragraph (1), the proposed Bill may not be initiated pursuant to Standing Order 174 until eight weeks have elapsed from the date the heads/scheme were given, save where— (a) the relevant Committee has completed scrutiny and has reported on the outcome, (b) the relevant Committee has decided that it does not wish to conduct scrutiny, and has advised the Minister accordingly, or (c) the Minister has received a waiver pursuant to paragraph (4)" of Standing Order 174A.

Houses of the Oireachtas (2022) (Consolidated) Dáil Standing Order relative to public business 2020, Dublin: Houses of the Oireachtas. Available here. Note: This consolidation has been produced for ease of reference, and is not an official edition of Standing Orders. Any subsequent modifications agreed may be added or incorporated into this document at the discretion of the (Houses of the Oireachtas) Journal Office. The corresponding order for the Seanad is Standing Order 143, available here.

The Joint Committee on EFHERIS agreed to undertake PLS in May 2023 The Committee invited representative bodies, relevant unions, statutory bodies, Department officials, and academic experts to give oral evidence before the Committee at public meetings on 9 and 16 of May 2023.

The Committee published their Report on Pre-legislative Scrutiny of the General Scheme of the Research and Innovation Bill on 15 July 2023 which made 21 recommendations.

L&RS traffic light analysis of PLS recommendations versus published Bill

This section seeks to assess the extent to which the Committee's recommendations have been addressed in the Bill, as presented for Second Stage. To do this, a traffic light system is used by the L&RS (Table 4 below), indicating whether a key issue is accepted and reflected in the Bill, whether a consistent or unclear approach is used, and whether the recommendation has not been accepted or is not reflected in the Bill. This traffic light approach represents the L&RS's own, independent analysis of the Bill, and a key to this dashboard is shown in Table 7 below.

Table 7 Key to traffic light dashboard comparing the Bill as published with Committee PLS recommendations.

L&RS categorisation of the Department's response in the Bill to the Committee's key issue	Traffic light dashboard used in Table 8 to highlight impact of the Committee's PLS conclusion
Key issue has clearly been accepted and is reflected in the Bill.	
The Bill may be described as adopting an approach consistent with the key issue or the impact of the key issue is unclear.	
Key issue has not been accepted or implemented in the Bill.	1

Table 8 Traffic light dashboard comparing the Bill as published with Committee PLS recommendations.

Commentary/recommendation as per Committee report	Whether addres	sed (either in whole or in part) in the Bill
Recommendation 1 To ensure absolute clarity, the Bill should clearly define all Research Terms that will be covered by the legislation.	101	All Research Terms that will be covered by the legislation are clearly defined in the Bill. The definition of "research" has been amended to encompass a broad understanding of the term which negates the need for unnecessary distinctions to be made between 'fundamental' and 'applied' research. This is in response to PLS and stakeholder feedback which

¹⁰¹ It should be noted that it is not clear the basis for the definition of 'innovation' in the interpretations set out in the Bill.

Whether addressed (either in whole or in part) in the Bill

raised concerns about narrow definitions potentially causing confusion about the remit of the new agency, and having the unintended consequence of creating divisions between disciplines and different kinds of research or career stages. It should now be very clear that the agency will fund all types of research, in all disciplines, at all career stages, and that the legislation in no way seeks to impose restrictions on this. Careful thought will be given to the optimal operational approach to how research funding is competitively distributed.

The definition of "research" used in the Bill is the same definition as provided in the Higher Education Authority Act 2022. The intention is to provide a broad definition which is regarded as allencompassing and provides for consistency with the HEA Act. It reads as follows:

"research" means creative and systematic work undertaken in order to increase the stock of knowledge (including knowledge of humankind, culture and society) and to devise new applications of available knowledge.

This is a slight variation on the OECD Frascati definition of "research", which is: "Research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge."

Further definitions of research terms have been added to ensure absolute clarity of intention.

Whether addressed (either in whole or in part) in the Bill

Recommendation 2

The Principles of the Bill should be clearly outlined in the legislation. These principles should reflect the different types of research cited in the Bill.



102

The work undertaken in relation to Recommendation 1 has brought further clarity in this regard. The approach to the Objects section on the Bill has been altered on the advice of the drafters to concisely capture the overarching high level principles of the Bill, and the intention of ensuring 'parity of esteem' across all disciplines and career stages. The Functions of the agency have been carefully considered and refined in the drafting process and the Department is confident that they now accurately and comprehensively convey the remit and fundamental purpose of the agency.

Objects have been considered as a set of overall principles applying to the research and innovation system. The updated terms used in Section 8 have been carefully considered, as part of drafting, in the context of the use of definitions in the Bill. The agency will fund all types of research, in all disciplines, at all career stages, and the legislation in no way seeks to impose restrictions on this.

Recommendation 3

The legislation should provide a mechanism to support how the Impact 2030 target, to increase expenditure on research and development to 2.5% of the domestic economy by 2030, can be met by Research and Innovation Ireland (RII). To this end, more detailed information should be provided in the



It is noted that stakeholders have been calling for increased investment in research and innovation. Research funding commitments constitute a policy matter which is not suitable for inclusion in the legislation, with resourcing being a matter for the annual Estimates process. Nevertheless, it is worth pointing out that the commitment to increase investment to at least 2.5% of the domestic economy included in Impact 2030 refers to both public and private expenditure on

¹⁰² There has been changes between the General Scheme and the Bill in the definition provided for 'research'. It should be noted however that is not clear in the Bill where definition provided for innovation originated from or if it used in previous Acts. Impact 2030 does state however that where the term 'Research and Innovation' is used in this Strategy, "it refers to the full spectrum of basic and applied research, experimental development and innovation", Source: 5f34f71e-e13e-404b-8685-4113428b3390.pdf (www.gov.ie)

Whether addressed (either in whole or in part) in the Bill

legislation on the specific strategies and plans to achieve this target.

research and innovation. 2021 saw the highest level of overall expenditure on research ever, with an 81% increase on spending since 2010 when taking into account public and private expenditure, and 2022 saw the highest ever Government expenditure in R&D, estimated at €990 million. Higher Education R&D expenditure has also increased by 8% since 2018.

The level of the Department's research investment is fixed under the National Development Plan (NDP) until 2025, but the Department's case for the next round of the NDP is currently being worked on, including demonstrating the wider impact of investment in research. Work is also ongoing on finding ways to use Government investment to leverage private investment, for example through the SFI Research Centres. Similarly, alternative funding streams for research talent development are being investigated, for example the National Training Fund; the Department's success to date in the Shared Island Funding for Research Programmes; and European sources such as ERDF.

It is the intention that the agency will have enhanced functions in terms of the ability to run funding calls for other Government Departments, under Section 48, and more proactive engagement with the European funding arena. As set out in Impact 2030, the impact of the public research system on policymaking is being strengthened by the dedicated Evidence for Policy function established in the Department. This connects researchers with policy makers across all 18 Government Departments and will also support institutions in providing

Whether addressed (either in whole or in part) in the Bill

research and evidence to support policy making and implementation.

The agency will support the Department in realising the Impact 2030 target, to increase expenditure on research and development to 2.5% of the domestic economy by 2030, through Corporate planning, cross-government cooperation, and cooperation on Government and Department strategies going forwards.

Recommendation 4

The legislation should specify how it is envisaged that the Technological Universities will benefit from the transformed research and innovation system. To this end, it is recommended that the Bill specifies the precise mechanism, funding sources, and key targets for *Research and Innovation Ireland (RII)* in terms of developing the capacity of research in the Technological Universities (TUs).



While this recommendation is outside of the scope of the Bill per se, the creation of Taighde Éireann, the new research and innovation agency, as underpinned by the Research and Innovation Bill 2023, is set against an ambitious programme of reform in the tertiary sector. This comprises the establishment of the Department of Further and Higher Education, Research, Innovation and Science itself, including the development of a unified tertiary system, its remit for the national research and innovation system and other key policy developments. The development of Technological Universities and their differentiated research and innovation missions is also significant in this space. Historically, the Institutes of Technology have accounted for approximately 12% of research and innovation activity in the higher education sector (in terms of expenditure as reported in the Higher Education R&D (HERD) Surveys). The new agency will be positioned so as to make a key contribution to the wider research and innovation system.

The research and innovation capacity of the TUs lies at the heart of their transformation from Institutes of Technology into Technological Universities and this is clearly reflected in

Commentary/recommendation Whether addressed (either in whole or in part) in the Bill as per Committee report Impact 2030. Strengthening institutional R&I capability will be key to their future impact, whether that comes through the enterprise with which they collaborate on research and innovation, or the students who graduate from the institutions, with a more research-intensive (for example, through the quality of the curricula and the calibre of the educators) educational experience. The ERDF funding with which the Department will support the strengthening of the TU research and innovation offices should, ultimately, translate into a step-up in their knowledge transfer to enterprise, be that through technology licences, new spinout companies and/ or the mobility of people between these institutions and those organisations. Work undertaken in relation to **Recommendation 5** Recommendation 1 has helped to clarify The legislation should specify this matter, as has the revised approach how to achieve a balance to the Objects. between "fundamental" and "orientated basic" research in the context of potential conflicts between the current Head 8(a) and Head 8(f). This recommendation should take into consideration recommendation 1 above and the need for clear definitions of research. The importance of these concepts is well **Recommendation 6** understood by the Minister, the The legislation should clearly Department and those who will lead and specify the parameters of staff the agency. Careful consideration academic freedom, research has been given to upholding academic integrity, and ethics under an freedom, research integrity and ethics in existing, or an additional object. the operationalisation of the Functions of the agency. The definitions relating to assessment now specify 'adherence to policies and good practices regarding

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report ethics, integrity and the conduct of research and innovation' as a core consideration. The concept of academic freedom is a core value of the Irish higher education sector, as reflected in the Universities Act 1997, the Technological Universities Act 2018, and the Higher Education Authority Act 2022. The Minister is fully committed to this principle. The agency will primarily fund researchers in the university and technological university sectors and, the legislation covering these sectors already offers sound protection for the principle of academic freedom. For the avoidance of doubt, it should also be noted that neither the Minister nor Government will have any power to direct or interfere with the agency's allocation of competitive research funding awards, and this is provided for in the Bill. The importance of promoting balanced **Recommendation 7** regional development in Ireland is fully The legislation should clearly accepted and the Bill now explicitly demonstrate an outward addresses this in the Functions of the international perspective as well agency. as defining the role to be played by Research and Innovation Clarity has also been provided in relation Ireland (RII) in promoting to the distribution of funding in Northern balanced regional development in Ireland. Ireland. As well as nationally fostering new research and innovation partnerships and collaborations between enterprise, community, government and the wider research and innovation sector, the new agency will also have a key role in

enhancing engagement with the Horizon Europe Framework Programme, Shared Island initiatives, US and global research and innovation partnerships. Overall, it will contribute to the deeper integration

Whether addressed (either in whole or in part) in the Bill

and coordination of funders and programmes.

Section 46 of the Bill provides that the new agency may receive funding for the purposes of co-funding competitive calls. It is not the intention for the legislation to provide for the agency to fund bodies directly outside of Ireland. However, funding provided to HEIs and Research Performing Organisations, in accordance with section 45, could be used internationally via contracts entered into between the funded bodies and others.

It is noted also that section 5 of the Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 provides for SFI to disburse funds to an institution in Northern Ireland, in accordance with certain conditions, as well as to participate in and contribute to the funding of international collaborative projects relating to strategic areas of opportunity for the State and to enter into an agreement with any person having a function relating to science or technology outside the State for the purposes of participating/ contributing to the funding of such international projects. In the context of drafting, care was taken in incorporating provisions to ensure that the new agency retains the current abilities of SFI in this regard.

Recommendation 8

The legislation should explicitly provide that the development of research advances climate action, biodiversity protection, enhancement and restoration, and the implementation of the United Nations' Sustainable Development Goals as an object



The PLS Report references the Programme for Government: A Shared Future commitments to supporting research and innovation, including the Programme for Government's commitment to recognise the high-quality research emerging through national funding agencies and programmes, such as SFI, IRC, HRB and PRTLI, and ensuring that the new agency will

Commentary/recommendation Whether addressed (either in whole or in part) in the Bill as per Committee report of Research and Innovation continue to support them in engaging in Ireland (RII). research that addresses societal challenges and advances the UN's Sustainable Development Goals. The new agency will highlight the importance of challenge-based funding in realising shared goals such as the twin green and digital transitions. In order to achieve this, the new agency must drive research and innovation excellence in all disciplines across the spectrum of Arts, Engineering, Humanities, Mathematics, Science, Social Sciences, Technology and others. The Bill provides for this by adding specific reference to research impact in terms of economic, social, cultural and environmental development and sustainability impact in the definitions, meaning that these are the primary considerations in both the planning and assessment of research undertaken. The agency must develop capacity to respond to challenges using integrated approaches from scientific, behavioural, economic and cultural perspectives. Such support for all disciplines is essential in order to ensure that Ireland has a resilient and agile research base that can make a substantive impact on national challenges and opportunities. In Section 9, the policy intention of planning research funding calls and assessing the impact of research and innovation in terms of environmental development and sustainability has been made explicit: "9.*I.* (to) ... assess and evaluate the outcomes and,

where appropriate, the impact on

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report economic, social, cultural and environmental development and sustainability grounds of research and innovation undertaken for which funding is awarded by the Agency" Talent forms one of the Impact 2030 **Recommendation 9** strategy's five pillars, articulating the The issues of Academic vision agreed across Government that, Contracts in both the by 2030, "We will be a global leader in Technological Universities (TUs) nurturing, attracting and retaining talent and traditional Universities needs to drive research and innovation in our to be reviewed as a matter of higher education and research system. urgency by the Minister for enterprises, communities and public Further and Higher Education, services". Within this, the Strategy seeks Research, Innovation and a consistency of research student Science, in liaison with experience across providers, funders and Universities. The review should research disciplines. However, include an examination of researcher contracts constitute a matter **Precarious Employment Practices** which is not wholly suitable for inclusion and include hourly paid Academic in the legislation. Contracts, the needs of Researchers, Postgraduate Looking at the research talent pipeline Workers, and the outsourcing of more widely, both Science Foundation Support Staff. The Committee Ireland and the Irish Research Council recommends that legislation be offer supports to researchers at different amended to place such a review stages of career development and this on a time-bound statutory basis. will continue under the new agency, as is explicitly provided for in its functions, specifically to: 9 (e) "promote the engagement, retention and development of the skills and capacity of researchers of an excellent standard in the national system of research and innovation and, as may be appropriate, to so do in co-operation with An tÚdarás and the other bodies to which section 48 applies" The creation of the new agency will also enable a more cohesive and streamlined spectrum of supports for the researcher

community.

Commentary/recommendation Whether addressed (either in whole or in part) in the Bill as per Committee report The provision for a structure of councils within the Bill will ensure that the researcher voice is heard and given priority within the agency, and the exact structure of these councils will be given careful consideration in the establishment phase of the new agency. The current independent National Review of State Supports for PhD Researchers is central to the realisation of this objective. The Co-Chairs appointed to conduct this review are considering a range of critical issues such as stipend levels and the consistency of supports for PhD students across the system and have conducted a very comprehensive round of stakeholder consultations. The first report in this process was published on 26th June and focuses on the pressing challenges facing PhD researchers in terms of stipend levels and the particular issues being encountered by PhD researchers coming to Ireland from outside the EU or EEA. The Co-Chairs leading the review are now focussing on how best to progress making recommendations on outstanding elements of the Terms of Reference of the review in their concluding report. Any decision the Minister makes on measures to support PhD researchers will be informed by the outcome of this review. **Recommendation 10** While this is a highly important issue, and The Committee recommends that a priority for the department, it is not Head 9 [Functions]¹⁰³ of the wholly appropriate for inclusion in the General Scheme be amended to legislation. Looking at the research talent include supporting researchers

¹⁰³ "Functions" is inserted for clarification by L&RS.

¹⁰⁴ This issue is not included in the Bill as initiated.

Whether addressed (either in whole or in part) in the Bill

throughout their career and implementing policies to end precarious employment in higher education as a function of Research and Innovation Ireland (RII).

pipeline more widely, both Science
Foundation Ireland and the Irish
Research Council offer supports to
researchers at different stages of career
development and this will continue under
the new agency, as is explicitly provided
for in its functions, specifically to:

9 (e) "promote the engagement, retention and development of the skills and capacity of researchers of an excellent standard in the national system of research and innovation and, as may be appropriate, to so do in co-operation with An tÚdarás and the other bodies to which section 49 applies,"

Recommendation 11

The legislation should include a clear blueprint on how Parity of Esteem can be achieved between academic disciplines, forms of research, and researchers themselves.



105

The importance of this concept is well understood by the Minister, the Department and those who will lead and staff the agency. Therefore, the Minister can assure stakeholders that careful consideration will be given to ensuring parity of esteem in the operationalisation of the Functions of the agency.

The Research and Innovation Bill 2023 forms a key part of the *Impact 2030: Ireland's Research and Innovation Strategy.* The Impact 2030 strategy clearly sets out the Government's ambition to be research and innovation leaders. The objectives of that strategy include the promotion and support of excellence in research and innovation across all disciplines, spanning fundamental research to applied research activity.

The Research Bill will place AHSS research on a statutory footing for the first time. The IRC currently only exists as

¹⁰⁵ It is not clear how the Bill, as initiated, will have the effect of placing AHSS research on a 'statutory footing'.

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report a division within the HEA. Therefore. despite being the largest competitive funder of research in the Arts, Humanities and Social Sciences, as well as excellent research in other disciplines, the IRC does not have its own statutory basis and identity. This context could be perceived as less effective from corporate governance perspective and poses difficulties in terms of growth opportunities and resourcing, particularly considering the extensive revisions to the operation of the HEA as set out in the recently passed legislation. Therefore, the creation of the agency itself, which will include all disciplines in its statutory basis, embeds the concept of 'parity of esteem' in the legislation. The establishment of the agency in statute also ensures parity of esteem for the IRC's critical mission of supporting researchers at all career stages. It will make competitive funding awards across all disciplines and of varying sizes in a way that complements the Higher Education Authority's core investment in the higher education institutions. This is the optimum means of ensuring true parity of esteem for research in the Arts. Humanities and Social Sciences and significantly broadening the access to researchers in these areas to an improved range of research funding programmes. This recommendation is related to **Recommendation 12** Recommendation 1, which seeks clarity The functions specified in Head 9 around the definition of research terms should be amended to include the used in the legislation. Further work has promotion and development of

¹⁰⁶ 'Frontier research' is not mentioned in the Bill. It is defined by the European Commission as research that reaches beyond horizons of existing knowledge by being intrinsically risky endeavours without regard for established disciplinary boundaries. SFI has frontier research as a main aim. Thus, frontier research has not been included as an explicit function of the Taighde Éireann.

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report been undertaken in this regard, in terms frontier research as an explicit of consideration of the definitions of function of Research and Innovation Ireland (RII). terms, and of the wording of the objects and functions of the agency. It is noted that Science Foundation Ireland, which was established under the Industrial Development (Science Foundation Ireland) Act 2003 (as amended), is the largest competitive funder of frontier research in science and technology in Ireland. It is the intention of the legislation to transfer all of the current activities of SFI and IRC to the new agency, to continue to develop on this excellent work. The Objects of the Agency now include: 8(b) "to support the undertaking of research and innovation in all fields of activity and disciplines by researchers with different levels of knowledge, experience and specialist skills in such fields or disciplines" The Research and Innovation Bill forms **Recommendation 13** part of Impact 2030: Ireland's Research The functions specified in Head 9 and Innovation Strategy. Impact 2030's should be amended to include the objectives include the promotion and promotion and development of support of excellence in research and public-private partnerships for innovation across all disciplines, research as an explicit function of spanning fundamental research to Research and Innovation Ireland applied research activity. It also seeks to (RII). promote and support the contribution of all such research and innovation to Ireland's economic, social, cultural and environmental development and sustainability, as well as strengthen the engagement between the research and innovation system and enterprise, Government and public bodies, the voluntary sector and society.

¹⁰⁷ Public-private partnerships are not mentioned in the Bill as a function of the agency. Section 9(d) and section 48 do not explicitly provide for public-private partnerships. Section 46 (Funding partnerships) does however state that Taighde Éireann may enter into agreements with a private body. This is not however a 'function' of Taighde Éireann.

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report It should be noted that the Bill strongly recognises the importance of enterprise through the inclusion of provisions relating to formal consultation taking place with Enterprise Ireland and the Industrial Development Authority Ireland, as well as the provision allowing for the Minister of Enterprise, Trade and Employment to nominate a board member. In general, the significance of enterprise and the relationships with the relevant authorities in this regard are underscored in Impact 2030 by the inclusion of the "Impact of Innovation on Enterprise Success" as one of the five pillars of Impact 2030: Irelands Research and Innovation Strategy, which was launched in May 2022. Objectives have been set for increasing and deepening enterprise research and innovation activity, industryacademic collaboration, digital transformation, realising climate action goals and smart specialisation. The new agency will have a key role to play in maintaining and building on SFI's key role in terms of facilitating enterprise engagement in national research and innovation objectives and also incorporate the valuable work of the IRC in this regard, and is now laid out in the Functions of the agency: 9 (d) 'promote research and innovation which supports the development and competitiveness of enterprise and employment in the State, nationally and regionally, and to so do, in co-operation and collaboration with Enterprise Ireland and the other bodies to which section 49 applies,' **Recommendation 14** The PLS Report references the The functions specified in Head 9 Programme for Government: A Shared should be amended to include Future commitments to supporting

Whether addressed (either in whole or in part) in the Bill

promoting, supporting, and developing research which assists in the implementation of the United Nations' Sustainable Development Goals as an explicit function of Research and Innovation Ireland (RII).

research and innovation, including the Programme for Government's commitment to recognise the high-quality research emerging through national funding agencies and programmes, such as SFI, IRC, HRB and PRTLI, and to continue to support them in engaging in research that addresses societal challenges and advances the UN's Sustainable Development Goals.

The Functions of the Bill provide specific reference to research impact in terms of economic, social, cultural and environmental development and sustainability impact in the definitions, meaning that these are primary considerations in both the planning and assessment of research undertaken. The new agency will highlight the importance of challenge-based funding in realising shared goals such as the twin green and digital transitions. In order to achieve this, the new research and innovation agency must drive research and innovation excellence in all disciplines across the spectrum of Arts, Engineering, Humanities, Mathematics, Science, Social Sciences, Technology and others. The draft legislation already provides for this. The agency must develop capacity to respond to challenges using integrated approaches from scientific, behavioural, economic and cultural perspectives. Such support for all disciplines is essential in order to ensure that Ireland has a resilient and agile research base that can make a substantive impact on national challenges and opportunities. Enhancing the role of Arts, Humanities and Social Sciences in contributing to challengebased research is essential in order to make progress on complex problems, such as climate change.

Whether addressed (either in whole or in part) in the Bill

Recommendation 15

The legislation needs to specify the scope and limits of the power of the relevant Minister to provide directions to Research and Innovation Ireland (RII). The specifications need to be cognisant of Research and Innovation Ireland's independence regarding making funding awards, ensuring peer input, displaying transparency, and providing for the sustainability of Research and Innovation Ireland (RII) to fulfil its remit regardless of government and departmental change.



This is an important point and has been carefully considered in the drafting of the Bill. While it was never the intention that the Minister should have any power in directing the awarding of competitive research funding, absolute clarity is now provided in section 11(5):

'The Minister shall not give a direction under this section concerning the terms of a funding scheme or the making of an award of funding in a particular case.'

The Bill provides for the Minister to give directions to the agency and obliges the agency to comply with enactments or the implementation of policy or objectives of the Minister or the Government as appropriate.

Recommendation 16

Head 11 should be amended to remove the provision that the related Minister may give direction in writing to Research and Innovation Ireland (RII) for any purpose relating to this legislation and concerning the implementation of any policy or objective of the related Minister or the Government.



108

This is an important point and has been carefully considered in the drafting of the Bill. While it was never the intention that the Minister should have any power in directing the awarding of competitive research funding, the wording in the Bill has made this very clear in section 11(5) Power of Minister to give directions to the agency: The Minister shall not give a direction under this section relating to a decision concerning the content of a funding programme or scheme for research or innovation or the making of an award or grant of funding in a particular case under such a programme or scheme.

¹⁰⁸ Section 11(1) of the Bill retains the provision that the Minister may give a direction in writing to the Agency for any purpose relating to this Act and concerning—

⁽a) any matter or thing referred to in this Act or any other enactment, and

⁽b) the implementation of any policy or objective of the Minister or the Government.

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report The Bill provides for the Minister to give directions to the agency and obliges the agency to comply with enactments or the implementation of policy or objectives of the Minister or the Government. It is fully accepted that the Minister should have no power to direct the awarding of competitive research funding. The Bill now makes the Minister's role and the boundaries between the agency's power to make decisions in relation to funding programmes and the Minister's powers to give direction in terms of strategy and policy guidance absolutely clear. Research and Innovation Ireland will be **Recommendation 17** compliant with the Code of Practice for The legislation should clearly the Governance of State Bodies and the specify the representation on the Guidelines for Appointment to State Board of Research and Boards. Members of the board will Innovation Ireland (RII). The ultimately be selected through a representation should include the transparent Public Appointments Service following: process, thereby ensuring the board will consist of persons who have sufficient Active researchers, at experience and expertise relating to various career stages. matters connected with the functions of A diverse range of higher the new agency to enable them to make education institutions. a substantial contribution to the effective An expanded list of and efficient performance of those relevant stakeholders functions. including higher education institution staff, The Heads of Bill provided that the new representative bodies, agency will have a board consisting of 12 relevant Unions, and other members, including a chair, and that all relevant organisations and appointments will be made by the individuals. Minister for Further and Higher Education, Research, Innovation and

Science. Careful consideration was given

to the competencies needed for the

Board.

¹⁰⁹ The recommendation of the Joint Committee sought the specification of membership on the Board of Taighde Éireann. This is not addressed directly in the Bill.

Commentary/recommendation as per Committee report Recommendation 18

Whether addressed (either in whole or in part) in the Bill

The PAS process commenced in October, and it is anticipated that, subject to the legislative process, the Board designate and Chairperson Designate will be in place in advance of the establishment day.

The Minister for Enterprise, Trade and Employment shall nominate one member to the board.

The Board may also establish committees/Councils to assist and advise it in relation to the performance of any of its functions.

Additional clarity and consideration should be provided on how the committee or council structures of Research and Innovation Ireland (RII) will be structured and function. In this context, it is recommended that the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) examines the structures of analogous bodies internationally that have a particular focus on ensuring that a parity of esteem exists between academic disciplines and types of research.



Additional clarity and consideration has been provided in relation to the inclusion of a Research Council structure in the agency.

On approving the General Scheme of the Bill, the Government noted the Minister's intention to instruct the agency to include a Council for AHSS in its structures with the aim of recognising the distinctive nature of AHSS research and its importance in Irish society. On foot of feedback received from stakeholders and the PLS process, the Minister has decided not to include an AHSS Council, but to opt instead for the inclusion of a broader Research Council structure. This is analogous to bodies internationally that have a particular focus on ensuring that parity of esteem exists between academic disciplines and types of research.

Section 19 provides that the Board may establish committees to assist and advise it in relation to the performance of any of its functions. This may include an audit and risk committee, which is accepted good practice as per the Code of Practice

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report for the Governance of State Bodies. Furthermore, where committees are established to provide specific research expertise, they should be known as "Councils." which will provide the Board with a mechanism to ensure that it continues to have access to a wide range of research advice. **Recommendation 19** Section 23(3) of the Bill provides that the The legislation needs to specify agency shall consult with the Minister, the the sectors and/or groupings that HEA, Enterprise Ireland and IDA Ireland ought to be consulted by in preparing its corporate plan. It also Research and Innovation Ireland includes that the agency may consult with (RII) for the purpose of its 5- year such other persons or bodies as it Corporate Plans as well as its considers appropriate. The Department Annual Plan. It is recommended regards this as the appropriate balance in that higher education institutions, terms of specifying particular bodies the researchers, representative and agency should be obliged to consult with, advocacy groupings, and while still giving the power for others to international experts should be be consulted. included. **Recommendation 20** This is similar to Recommendations 15 The scope of the relevant Minister and 16 with regard to the administration in the framing of Research and of funding awards. The Bill gives the Innovation Ireland's (RII) Minister certain powers of providing Corporate and Annual Plans, and direction in terms of Department and in respect of Funding Awards Government strategy and policy in needs to be reviewed. relation to the agency's Corporate Plan and Annual Plan. These are standard provisions with precedents for State Agencies created in recent legislation, including the *Higher Education Authority* Act 2022, and the Domestic, Sexual and Gender-Based Violence Agency Act 2023. While it was never the intention that the Minister should have any power in directing the awarding of competitive

Whether addressed (either in whole or in part) in the Bill

research funding, the wording in the Bill has made this clear in section 11(5).

The Bill provides for the Minister to give directions to the agency and obliges the agency to comply with enactments or the implementation of policy or objectives of the Minister or the Government.

It is fully accepted that the Minister should have no power to direct the awarding of competitive research funding. The Bill now makes the Minister's role and the boundaries between the agency's power to make decisions in relation to funding programmes and the Minister's powers to give direction in terms of strategy and policy guidance absolutely clear.

Recommendation 21

The legislation should clearly specify how the Department of Further and Higher Education, Research, Innovation and Science proposes to conduct the Consultation Processes that will be used to inform it in the drafting of the legislation.



The consultation processes used to inform the drafting of the legislation are not pertinent for inclusion in the Bill itself. The Department engaged in wide scale consultation in the development of the Impact 2030 Strategy, with the Creating Our Future campaign. The High Level Group on the Research and Innovation Bill has provided a forum for active stakeholder engagement during the development of the Bill. The Impact 2030 Forum has also provided an opportunity for Departments and stakeholders to give their input. Consultation with wider stakeholders, with particular regard to the research and innovation community, is also underway in order to seek feedback on the operationalisation of the functions of the new agency. This is being led by the CEO Designate of the agency, Professor Philip Nolan, who the Minister appointed in May to assist the Department in undertaking the significant transitional and operational programme of work required to establish the new

Whether addressed (either in whole or in part) in the Bill Commentary/recommendation as per Committee report agency. This will also not be included in the Bill itself, as it is not pertinent for inclusion in the Bill itself. At a broader level, the Department is prioritising the development of stakeholder engagement structures as a priority objective from Impact 2030, and these are playing an important role in supporting the establishment of the new agency. This includes: The Minister's announcement that a new Government Science Advisor will be appointed and a National Science Advice Forum will be established; The establishment of an Evidence for Policy Unit in the Department, which is working to strengthen connections between Government Departments and the public research system. A Civil Service Research Network Forum has also been established, with Higher Education Structures to follow, which will connect researchers with policy makers; The launch of an expression of interest process for members of a Research and Innovation Policy Advisory Forum, which is currently under development and which the Minister will chair

Source: Joint Committee's PLS report recommendations; responses from the Department of Further and Higher Education, Research, Innovation and Science in respect of the extent to which each Committee recommendation has been fully, partially or not included in the Bill; and, independent assessment of responses into the 'traffic light' system by L&RS, based on the text of the relevant recommendation.

The PLS table above shows that 53.4%, or 11, of the 21 recommendations made by the Joint Committee as part of the PLS of the Bill have been either fully (green) or partially (orange) included in the Bill.¹¹⁰

¹¹⁰ It should be noted in this regard that not all recommendations were fully applicable to legislation and in this case the *Research and Innovation Bill* itself.

Principal provisions of the Bill

This section of the Bill Digest examines the principal themes in the provisions of the Bill. The Bill is 47 pages long and contains 5 Parts and comprising across them 68 Sections.

The main aim of the Bill is to make provision in legislation for the funding of research and innovation in all fields of activity and disciplines and, for that purpose, to provide for the establishment and functions of Taighde Éireann. Therein, the Bill seeks to provide for the dissolution of Science Foundation Ireland, the transfer of its staff, records, assets and liabilities to Taighde Éireann; to amend the Higher Education Authority Act 2022 and to provide for the transfer of certain members of staff and records, assets and liabilities relating to research of HEA to Taighde Éireann.¹¹¹

Table 9: Principal provisions and structure of Research and Innovation Bill 2024

Section(s)	Title	Effect		
Part 1: Preliminary and General				
1-5	Preliminary and general	The provisions here are for the most part standard provisions. Section 2 sets out the interpretation of terms used in the Bill, including 'research', 'innovation' 'outcomes and, where appropriate, the impact, and 'standard and quality', among others.		
Part 2: Taighde Éireann				
6-10	Establishment and functions of Agency	These sections provide for the establishment, objectives and functions of Taighde Éireann.		
11-14	Ministerial powers and information	These sections, among other things, provides that the Minister may give a direction and guidance in writing to Taighde Éireann in respect of the Act and related matters.		
15-21	Board of Agency	In these sections, provision is made for the Board, Membership, Chairperson, operation of the Board and subcommittees of the Board etc.		
22-27	Funding and accountability of Agency	These sections provide for the funding to be made to the agency, its Corporate and Annual Plans, audit procedures, accounts, annual reports etc. of Taighde Éireann.		
28-31	Chief Executive Officer	Sections 28-31 provides for the appointment of the Chief Executive Officer by the Board with the consent of the		

¹¹¹ Paraphrased from the *Research and Innovation Bill 2024* (oireachtas.ie)

Section(s)	Title	Effect			
		Minister, as well as the functions and accountability of the Chief Executive Officer,			
32-33	Staff of Agency	These sections provide for the staff of the agency as well superannuation of staff.			
34	Unauthorised disclosure of confidential information	This section provides that a staff member of, or an advisor/consultant, to Taighde Éireann shall not disclose confidential information related to the agency.			
Part 3: Arra	Part 3: Arrangements for the Funding of Research and Innovation				
35-48	Arrangements for the Funding of Research and Innovation	These sections provide for the Taighde Éireann to put in place funding scheme for research and innovation that are in keeping with its objective and functions. The sections also provide the operation and promotion of such funding schemes, as well as cross-departmental and international co-operation in respect of funding, among other things.			
Part 4: Data	a Protection				
49-50	Data protection	These sections provide for the data protection standards to be applied by Taighde Éireann.			
Part 5: Tran	Part 5: Transitional, Consequential and Miscellaneous Provisions				
51-68	Transitional, Consequential and Miscellaneous Provisions	These sections of the Bill provide, among other things, for dissolution of SFI and transfer of its staff, operations and undertakings to Taighde Éireann. The sections also provide for the staff of the HEA working under the Irish Research Council to be transferred to Taighde Éireann as well matters related.			

As such, it does seek to elaborate on each and every provision set out across the Bill's sections but rather focus on a number of key, principal themes that give an overview of the main effects of the Bill if passed into legislation. The themes discussed in respect of the Bill below are the following:

- Interpretation
- Objects and functions
- Powers of the Minister
- Board
- Arrangements for funding

Transitional provisions

Interpretation

Some of the concerns of stakeholders in respect of the definitions set out in the General Scheme of the Bill were discussed above. Section 2 of the Bill provides for the 'interpretation' to be used for a list of terms. Key among these are the interpretations provided for the following:

- "innovation" means the development and use of new ideas, methods, products, processes, policies and services where they have not been used previously;
- "outcomes and, where appropriate, the impact," in relation to research and innovation, means -
 - (a) the likely or achieved changes and effects of a research and innovation activity, and (b) the extent to which that activity is expected to generate or has generated significant effects (which may be positive or negative, intended or unintended) on economic, social, cultural and environmental development and sustainability, and such changes and effects may become apparent in the short term, medium term or long term and may vary in different fields of activity and disciplines of research and innovation;
- "research" means creative and systematic work in any discipline that is undertaken in order to increase the stock of knowledge (including knowledge of humankind, culture and society) and to devise new applications of available knowledge;
- "standard and quality," in respect of research and innovation, means the standard and
 quality of the research and innovation assessed and evaluated by reference to international
 good practices in the relevant field of activity or discipline of research and innovation,
 including adherence to policies and good practices regarding ethics, integrity and the
 conduct of research and innovation in that field or discipline;

Most of the interpretations, except that for 'innovation', set out, in the Bill have been newly inserted or amended to some extent from those previously provided in the General Scheme. In the General Scheme, there was no interpretation provided for 'excellence' in respect of research, while the Bill has an interpretation for 'standard and quality'. The General Scheme also included a definition of 'development' which is absent from the Bill.

Objects and functions of Taighde Éireann

Part 2 of the Bill, containing seven chapters, provides among other things for the establishment of Taighde Éireann. The two key sections of Part 2 are those that provide for the Objects and Functions of Taighde Eireann. Due to their centrality to the Bill and Taighde Éireann, it is worth quoting each in full in turn below.

Objects of Agency

- 8. The Agency shall have regard to the following objects in performing its functions:
- (a) to promote the attainment and maintenance of excellence in the standard and quality of research and innovation undertaken;
- to support the undertaking of research and innovation in all fields of activity and disciplines by researchers with different levels of knowledge, experience and specialist skills in such fields or disciplines;
- (c) to promote and support the contribution made by research and innovation to economic, social, cultural and environmental development and sustainability in the State;

- (d) to strengthen the engagement of the research and innovation system with
 - (i) the Government, Ministers of the Government and bodies (whether statutory or otherwise) which are funded wholly or partly by public moneys, and
 - (ii) enterprise, non-governmental organisations, cultural institutions and society generally;
- (e) to promote and develop the reputation of the State internationally as a location that is favourable for undertaking research and innovation;
- (f) to advance the principles of equality, diversity and inclusion with regard to opportunities to undertake research and innovation and in the undertaking of that research and innovation.

Source: Research and Innovation Bill 2024 (oireachtas.ie)

Functions of Agency

- 9. (1) The functions of the Agency shall be to—
- (a) promote the objects of the Agency,
- (b) promote and develop research and innovation in the State by designing and administering funding schemes, in accordance with international good practice, for the award and disbursement of funding for research and innovation in accordance with Part 3,
- (c) support the development and maintenance of a national system of research and innovation, in co-operation and collaboration with An tÚdarás, Enterprise Ireland and the other bodies to which section 48 applies and such other persons and bodies in the higher education and research system or the research and innovation system as the Agency considers appropriate,
- (d) promote research and innovation which supports the development and competitiveness of enterprise and employment in the State, nationally and regionally, and to so do, in co-operation and collaboration with Enterprise Ireland and the other bodies to which section 48 applies,
- (e) promote the engagement, retention and development of the skills and capacity of researchers of an excellent standard in the national system of research and innovation and, as may be appropriate, to so do in co-operation with An tÚdarás and the other bodies to which section 48 applies,
- (f) promote the attracting to the State of research and innovation teams of an excellent standard, and individuals with an interest in research and innovation of an excellent standard, with a view to their carrying out research and innovation in the State,
- (g) in co-operation with An tÚdarás, promote and support the undertaking of research and innovation in the higher education and research system and in the research and innovation system,
- (h) in co-operation with An tÚdarás, contribute to the development, assessment and evaluation of research and innovation to ensure that a standard and quality of excellence are consistently adhered to by those in the research and innovation system,
- (i) in co-operation with An tÚdarás, to promote the links and mutual benefits between research and innovation undertaken and teaching and learning activities in the higher education system,
- (j) promote the success of research and innovation undertaken in the State which is supported by awards of funding made by an international or European Union body, institution or organisation,

- (k) promote co-operation and collaboration with regard to research and innovation between those who fund or undertake research and innovation in the State and those who do so in Northern Ireland.
- (I) assess and evaluate the outcomes and, where appropriate, the impact on economic, social, cultural and environmental development and sustainability grounds of research and innovation undertaken for which funding is awarded by the Agency,
- (m) promote and support an awareness and understanding of the value of research and innovation to society and facilitate engagement of members of the public with those engaged in research and innovation activities,
- (n) support the undertaking of research and innovation that informs the development of public policy and encourages and facilitates the collation and sharing of findings of research and innovation for that purpose,
- (o) enter into funding partnerships in accordance with section 46, and
- (p) advise the Minister in relation to national policy on research and innovation in

accordance with section

Source: Research and Innovation Bill 2024 (oireachtas.ie)

Section 8 in sub-sections 2, 3 and 4 collectively provide that Taighde Éireann will all the power necessary to perform its functions, including delegation of such functions to authorised staff of the agency.

Powers of the Minister

It was discussed above how concerns were raised in the PLS hearings on what were considered overall extensive powers reserved for the Minister under the General Scheme of the Bill. One of the key areas of note here was the extent of direction the Minister could make to Taighde Éireann, including in theory around the awarding of research and innovation funding. This latter aspect is not in the Bill. The Bill does provide extensive powers to the Minister.

Section 11 provides that the Minister may give a direction to Taighde Éireann requiring it to comply with any matter referred to in the Act, including any other enactment or the implementation of any policy or objective of the Minister or the Government. Section 12 provides that the Minister may issue guidelines to Taighde Éireann under the Act, which may relate to codes of practice for governance, other codes, additional policy guidance or changes in policy and changes in prioritisation of the corporate plan commitments of Taighde Éireann. Section 13 and 14 respectively provide for reporting and the provision of advice by Taighde Éireann to the Minister.

Board of Taighde Éireann

In line with most statutory bodies, the Bill, in section 15, provides for the establishment of a Board of Taighde Éireann which will oversee the preparation and adoption of the corporate plan and the annual plan for Taighde Éireann and their submission to the Minister. The Board will also have responsibility that that appropriate systems, procedures and practices are in place in Taighde Éireann. It will also establish and implement arrangements for the management of the performance of the Chief Executive Officer of the Agency. Section 16 provides for the Board to have 12 Members one of whom will be the Chairperson. This section also provides that all appointments will be made by the Minister. Section 19 provides for the Board to establish committees.

Arrangements for funding

Section 35 of the Bill provides that Taighde Éireann, having regard to the objects and the functions, will put in place a range of schemes for the funding of research and innovation to be undertaken in the State and, to a limited extent whereby the funded body is based within the State or in Northern Ireland, outside the State. The Agency's Chief Executive will prepare draft schemes of funding for approval by the Board.

A scheme for the funding of research and innovation will detail, among other things, the following: 112

- the purpose of the scheme;
- the area or topic of the research and innovation to which the scheme will apply;
- the criteria for eligibility of persons to undertake the research and innovation to which the scheme applies;
- the criteria for the selection of successful applicants and the criteria for the award of funding under the scheme and, the conditions to be complied with by a person/body to awarded funding under the scheme;
- the arrangements for the assessment of applications for funding under the scheme;
- the arrangements for monitoring compliance with the conditions of funding under the scheme;
- the arrangements for monitoring the standard and quality of the research and innovation undertaken for which funding is awarded
- the arrangements for the assessment and evaluation of the outcomes and, where appropriate, the impact of the research and innovation undertaken for which funding is awarded under the scheme;

Further sections in this Part of the Bill provide for assessment of applications for funding, disbursement of funding, compliance with conditions for funding awards, and so forth.

Transitional provisions

Part 4 of the Bill provides for the transitional and consequential provisions related to the establishment of Taighde Éireann. It includes provisions for the dissolution of SFI and the transfer of its staff, property, rights and liabilities, contracts, records and so forth to the new agency. Part 4's section 61 provides for the transfer of the IRC staff of the HEA to the new agency. In all cases of staff transferring to Taighde Eireann from SFI and IRC (HEA), they will be subject to such terms and conditions of service, including terms and conditions relating to tenure of office or remuneration not less favourable than the terms and conditions of service immediately before the effective date. Part 4 also provides therefore for the transfer of certain records, functions of the HEA to Taighde Éireann.

¹¹² Paraphrased from Explanatory Memorandum, Research and Innovation Bill 2024.

Contact:

Houses of the Oireachtas Leinster House Kildare Street Dublin 2 D02 XR20

www.oireachtas.ie

Tel: +353 (0)1 6183000 Twitter: @OireachtasNews

Library & Research Service Tel: +353 (0)1 6184701

Email: <u>library.and.research@oireachtas.ie</u>