



Department for the  
**Economy**  
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An Roinn  
**Geilleagair**

# **Public Consultation - Review of the Northern Ireland Postgraduate Award (PGA) Scheme**

**AUGUST 2024**

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## Foreword

### MINISTER FOR THE ECONOMY

Investment and support for research and innovation is fundamental to growing a strong, regionally balanced economy that attracts investment, invites collaboration and builds sustainability - to deliver better jobs, higher productivity and improved living standards for all of our community.



Talented people with the right skills are key to our research and innovation performance, and postgraduate researchers represent that critical early stage of the research talent pipeline. They are the research leaders and innovators of the future who we will depend on to explore and disseminate new knowledge, make discoveries and create solutions for the economic and societal challenges faced by our community, not only here, but also worldwide.

Evidence suggests that countries producing a higher proportion of PhDs and postgraduates, especially in science and engineering, see larger increases in productivity. Our research community has a key role to play in the achievement of the objectives set out in my Economic Mission - raising productivity through improving work-relevant skills and supporting R&D activities, and driving innovation collaboration across government, academia and the private sector. Researchers will also contribute to the critical objective of reducing carbon emissions as they explore new ideas and develop new technologies to help build a greener and more sustainable economy.

Since 2002, annual funding has been provided to our local universities for postgraduate research studentships under the Postgraduate Award (PGA) Scheme. It's right that we take regular opportunities to consider whether our support is fit-for-purpose or if change is required to improve outcomes. This consultation paper sets out a number of potential options for reform, and I invite your views on these.

Postgraduate research study requires a significant investment of time and effort and I want to ensure that students are being supported appropriately and that their experience of postgraduate research is as beneficial and as impactful as possible for the individual, the university and the wider economy. Therefore, changes are also being proposed to the existing PGA Scheme terms and conditions.

I am grateful to all respondents for their time and input into this consultation, which will be used to develop and refine my Department's approach to the PGA Scheme in the future. I look forward to hearing your views over the coming weeks.

A handwritten signature in black ink, reading "Conor Murphy".

**Conor Murphy MLA**  
**Minister for the Economy**

## Executive Summary Postgraduate Award Scheme (PGA) Consultation

The Postgraduate Award (PGA) Scheme, established by the then Department for Education and Learning (DEL), has been in operation since 2002 and currently provides funding (tuition fees and stipend) for the equivalent of 729 full time PhD students at a cost of £19.0m p.a. (AY 24-25). 'Studentships' are based in NI universities with c.80% being general research PhD places and c.20% being funded collaboratively by universities and industry (known as CAST PhDs). The PGA scheme currently constitutes c.30% of all university PhD studentships in NI.

Funding supporting the Scheme (while contingent on budget availability each year) can be considered as a ringfenced element of the annual wider block grant that is provided to universities to promote the financial sustainability of research and innovation (R&I). This institutional block grant funding includes core Quality-related Research (QR) funding and Higher Education Innovation Fund (HEIF) streams to support R&I capacity and capability and to help meet the full economic cost of externally secured R&I funding.

The PGA Scheme is unique among UK national research funding bodies, in that it is annual R&I funding specifically targeted at supporting PhD studentships, rather than provided as part of the un-hypothecated (non-directive) research and innovation block grant, over which universities can exercise flexibility to utilise funding in whichever way best suits their strategic R&I priorities.

In October 2022, the Department for the Economy (DfE) commissioned independent consultants to conduct a review of DfE's PGA Scheme. The purpose of the review included:

- To assess the effectiveness of the PGA Scheme in meeting the research and innovation skills needs of the Northern Ireland economy; and
- To identify issues and make recommendations to inform future DfE decisions in relation to policy, funding, and monitoring in respect of support for PGAs.

The review, which concluded in September 2023, highlighted the need for further engagement with stakeholders to address key information gaps to inform a robust assessment of the Value for Money (VFM) and impact of the PGA Scheme. Accordingly, the Department held a number of workshops with key stakeholders including industry representatives and the NI universities and conducted a survey with R&I active NI businesses to better understand the demand for PhDs and their contribution to R&I objectives. Shaped by evidence collated during this additional engagement with key stakeholders, a number of potential future policy options have been proposed.

This consultation seeks your views on potential options for the way forward for the PGA Scheme. It should be noted that given the lead in time for implementation, it would not be feasible to introduce any major policy changes before the 2025/26 academic year.

## Section 1 – Purpose of Consultation

### BACKGROUND

- 1.1 The Postgraduate Award (PGA) Scheme, established by the then Department for Education and Learning (DEL), has been in operation since 2002 and currently provides funding (tuition fees and stipend) for the equivalent of 729 full time PhD students at NI Higher Education Institutions (universities) at a cost of £19.0m p.a. (AY 24-25). The PGA Scheme currently constitutes c.30% of all PhD studentships offered by universities in NI. There are three main types of award:
- **PhD Research Studentships** – cover a maximum period of 3 years subject to annual renewal. PhD Research studentships can also include a research training support grant and work experience opportunities (up to 3 months) depending on circumstance.
  - **CAST Studentships** – run for 3 years and are designed to encourage collaboration between academic institutions and industry, whilst also providing opportunities for graduates to gain experience outside of an economic environment. Industry collaborators must make an annual contribution in cash covering at least 60% of the student maintenance grant per annum for the duration of the award and support in areas such as facility provision and expenditure related to the project.
  - **Master's in Research (MRes) Studentships** – run for 1 year and are considered a foundation year for a subsequent 3 year PhD.
- 1.2 Funding supporting the Scheme (while contingent on budget availability each year) is considered as a ringfenced element of the annual wider block grant that is provided to universities to promote the financial sustainability of research and innovation (R&I). This institutional block grant funding comprises core Quality-related Research (QR) funding and Higher Education Innovation Fund (HEIF) streams to support R&I capacity and capability and to help meet the full economic cost of externally secured competitive R&I funding.
- 1.3 The PGA Scheme is unique among UK National Research Funding Bodies<sup>1</sup>, in that it makes provision for annual R&I funding specifically targeted at supporting PhD studentships, rather than provided as part of the un-hypothecated (non-directive) research and innovation block grant, over which universities can exercise flexibility to utilise funding in whichever way best suits strategic R&I priorities.

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1 Research England, Scottish Funding Council, Higher Education Funding Council for Wales and Department for the Economy NI.

- 1.4 External consultants were commissioned to carry out a review in 2022/23 to determine the effectiveness and Value for Money (VFM) of the PGA Scheme, and to provide evidence to inform an economic appraisal to underpin the Scheme. The review also considered whether the research funding could be targeted more effectively to meet the R&I and wider skills requirements of key customers within the NI economy, in support of wider departmental and governmental strategic and policy objectives.
- 1.5 Although able to reference the broader benefits PhDs bring to the economy to justify governmental support in this area, the review was unable to provide sufficient evidence to support a robust economic appraisal of the Scheme in its current format and with its existing level of funding. Therefore, following engagement with key internal and external stakeholders, a number of potential options for change have been identified for the model of the Scheme going forward.
- 1.6 This consultation seeks your views on these potential options for the PGA Scheme as well as proposed changes to the existing Terms and Conditions. We would particularly welcome any additional evidence you wish to provide, or direct us to, in support of any of the options for change.

## STRUCTURE OF THIS CONSULTATION DOCUMENT

- 1.7 **Section 2** of this consultation document outlines the findings of the review of the PGA Scheme, supplemented by additional information collated by the Department from a process of stakeholder engagement. This includes information regarding:

- the need for PGA Scheme in NI;
- an assessment of the current PGA Scheme; and
- a comparison of approaches to postgraduate researcher support.

**Section 3** of this consultation document outlines and discusses the options on which the Department is consulting.

**Section 4** of this consultation document sets out the proposed changes to PGA Scheme Terms and Conditions.

**Appendix A** is the Consultation Response Form.

## HOW TO RESPOND

- 1.8 Responses are invited on the proposed options set out in this consultation document and/or on the equality screening form and rural needs impact assessment. The best way to respond to this consultation is online, using the [PGA Scheme Consultation Survey](#) on the Department's website.

This is quick and simple to complete and provides easy opportunity for response.

In the event that you are unable to respond using the electronic format above, please post your response to:

**FAO PGA Consultation Response**  
**HE Research and Knowledge Exchange Branch**  
**Department for the Economy**  
**6<sup>th</sup> Floor**  
**Adelaide House**  
**39-49 Adelaide Street**  
**Belfast BT2 8FD**

This consultation will close on 26<sup>th</sup> September 2024. Any responses received after this date will not be considered as part of this consultation process.

## CONFIDENTIALITY AND DATA PROTECTION

- 1.9 We will summarise all responses received and place this summary on the Department for the Economy website. This will include a list of the organisations that responded, but will not include people's personal names, addresses or other contact details.
- 1.10 Information provided in response to this consultation, including personal information, may be subject to publication or disclosure under access to information legislation (primarily the Data Protection Act 2018/the General Data Protection Regulation 2018; Freedom of Information Act 2000; and the Environmental Information Regulations 2004).
- 1.11 For this reason, you should identify in your response any information which you do not wish to be disclosed and explain why this is the case. Please note that an automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.
- 1.12 If we receive a request for disclosure of this information, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances.
- 1.13 For further information about how we process your personal data, please see our Privacy Notice.

## COPIES OF THE CONSULTATION

- 1.14 This consultation document is being produced primarily in electronic form and may be accessed on the [‘Consultations’ page](#) on the Department for the Economy’s website.
- 1.15 Alternative versions of this document are available upon request. Please email [Research.Branch@economy-ni.gov.uk](mailto:Research.Branch@economy-ni.gov.uk) and appropriate arrangements will be made as soon as possible.



## Section 2 – Postgraduate Award (PGA) Scheme Review

### BACKGROUND

- 2.1 The PGA Scheme was introduced in 2002 by the then Department for Employment and Learning (DEL), with initial funding of £1.2m, to address a deficit in NI PhD students compared to the rest of the UK and the belief that that there was a correlation between the number of PhDs in a region and that region’s development as a “Knowledge Economy”. Initially 395 PhD places were funded.
- 2.2 In 2007, through the ‘*Funding for Innovation*’ initiative, additional PGAs were introduced. Awards were increased by 100 per year for 3 academic years 2008/09, 2009/10 and 2010/11. As the students funded through this initiative graduated, funding was phased out and the numbers of PGAs decreased.
- 2.3 The Skills Strategy for NI (2011) indicated a need for more graduates at levels 4-8 in STEM-related subjects. Accordingly, in 2012, the DEL Higher Education Strategy, *Graduating to Success*, set a target to fund 50 additional PhD places annually, towards an overall Higher Education (HE) Strategy aim of doubling the total number of postgraduate awards to 1,000 by 2020. In addition, a further 50 places were funded annually through the then ‘*Jobs and Economies Initiative*’. This additional funding ultimately enabled the Department to increase the number of funded PGAs to 729 by academic year 2014/15. In the absence of additional funding being made available, no further progression towards the HE Strategy target of 1,000 PGAs has been possible (see Table 1 below).

Academic Year	Number of PhDs funded-awarded
2002-07	395
2007-08	495
2008-09	595
2009-10	695
2010-11	795
2011-12	695
2012-13	595
2013-14	612
2014-24	729

Table 1 – PGA Scheme 2002-03 to 2023-24

- 2.4 The Department for the Economy (DfE) inherited the Scheme in 2016, and responsibility for policy was handed to Higher Education Division (HED), in view of the Scheme's research and innovation (R&I) related objectives.
- 2.5 PGA Scheme funding is distributed between NI universities on the basis of their respective mainstream Quality-related Research (QR) allocations (part of the annual recurrent R&I block grant funding), which are determined by the volume and quality of research, as assessed by the UK wide Research Excellence Framework (REF) exercise which takes place every seven years. PGA Scheme funding is provided to NI universities on an annual basis (subject to available budget), however, the universities commit to funding PGA Scheme PhDs for their (3 year) duration, and at risk, prior to confirmation of funding from the Department each year.
- 2.6 The PGA Scheme is administered by the universities, and they determine how to allocate quotas of PhDs to their schools and faculties based on research strengths and strategic talent related research priorities, and their understanding of the needs of NI businesses and society.
- 2.7 Although each university can structure the delivery and administration of the Scheme largely independently, there remain some key administrative elements mandated by the Department as part of the funding arrangement between the Department and the institutions. The guidelines and terms and conditions for the Scheme focus on administrative and financial elements of delivery based on long standing (broadly stated) objectives.
- 2.8 Examples of DfE-mandated elements of Scheme delivery and administration are provided below:
- the universities must use the financial assistance to fund postgraduates in accordance with the provisions of the agreement between them and DfE;
  - the universities must provide reporting information on the Scheme (e.g. student data, distribution of studentships and financial reporting), coupled with an independent audit of procedures related to operation of the Scheme for the relevant academic year;
  - the universities must provide confirmation that the financial assistance has been provisionally allocated in full;
  - the universities must provide equality information for both applicants and for those who have received offers and commenced research;
  - the universities must make DfE aware of any unspent funds for the relevant academic year by the deadline set by DfE; and
  - the Scheme must commence and finish within the timeline set by DfE (for academic year 2022/23, this is 1<sup>st</sup> October 2022 – 30<sup>th</sup> September 2023), and the universities must consult with DfE immediately where delays in implementation occur.<sup>2</sup>

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2 DfE (2022) PGA Scheme Final Letter of Offer for both QUB and UU for academic year 2022/23.

- 2.9 Approximately 20% of the PhDs awarded annually under the PGA Scheme involve an industry partner. Individual academics develop Cooperative Awards in Science in Technology (CAST) research projects with businesses. The Department is not prescriptive in setting a quota for CAST awards, and of the 20% that are currently offered, the vast majority sit within Queen's University, Belfast (QUB).
- 2.10 In AY 2023/24, PGA Scheme funding to NI universities (split based on mainstream QR) equated to a 65.33%:34.67% split between QUB and Ulster University (UU). As a result, QUB received funding for 476 full time equivalent (FTE) studentships (i.e. £12,043,173) and UU 253 FTE studentships (i.e. £ 6,442,974). This equates to £25,358 per PGA Scheme student p.a. (£76,075 per student over three years) and covers tuition fees and a stipend. CAST students may also receive an additional contribution from industry of up to 25% of the DfE award.

## PURPOSE, SCOPE AND OBJECTIVES

- 2.11 Broad objectives for the Scheme are listed in the 2013 DEL Higher Education policy "Graduating to Success"<sup>3</sup>, namely a numerical target of 1000 funded PhDs p.a. and an expectation that this additional funding would help leverage an increased drawdown of externally provided UK-wide competitive research funding from organisations such as the UK Research and Innovation (UKRI) Research Councils, industry, charities and business and community organisations.
- 2.12 In 2019, as part of a wider DfE Postgraduate Policy and Funding Review, an exercise was undertaken to gauge the demand for PhD-qualified individuals in the NI economy and the extent to which that demand was currently being met by the Department and other sources. The review concluded that, while the evidence pointed to a perceived demand for postgraduate-qualified individuals in NI, particularly due to the associated R&D benefits, the actual level of demand was not clear and did not appear to be supported by any direct evidence.
- 2.13 The review concluded that the Department was supplying sufficient funding to support the perceived demand for postgraduate research students in NI. However, it raised concerns, for sustainability reasons, that NI universities did not perform well when compared with UK peers in securing externally provided competitive PhD funding, for example, from UKRI Research Councils, and that this raised the question of whether the PGA Scheme was promoting a static situation whereby there was no incentive to seek and utilise competitive funding sources. The Steering Group ultimately recommended a formal evaluation of the appropriateness of the PGA Scheme.

2.14 Accordingly, in October 2022, the Department commissioned external consultants to conduct a review of the PGA Scheme to inform potential policy options for the Scheme going forward. The objectives of the review were to provide:

<b>Objective 1</b>	<b>The context of PGA Scheme within the wider annual recurrent research and innovation funding landscape</b>
<b>Objective 2</b>	<b>A comprehensive report on demand for and supply of PhDs</b>
<b>Objective 3</b>	<b>Evidence of the impact and VFM of the PGA Scheme</b>
<b>Objective 4</b>	<b>A set of options for the Scheme going forward, including whether the Department should continue to provide ringfenced funding for postgraduate research awards</b>

2.15 While PhD graduates undoubtedly contribute to meeting the wider skills requirements of the economy, the review was primarily concerned with the R&I related skills requirements of universities and R&I active businesses, and the extent to which the PGA Scheme is meeting these requirements.

2.16 Similarly, while NI PhD students are undoubtedly key beneficiaries of the PGA Scheme, especially in view of the absence of specific PhD loan provision in NI<sup>4</sup>, student support is not the underpinning policy rationale behind the provision of the Scheme, and therefore was out of scope of the review. It is, however, recognised that the impact of any changes to the Scheme will need to be considered more widely, and may influence policy in other Higher Education and Skills related business areas. For example, this could include the introduction of additional support for postgraduate study, such as the introduction of a PhD loan facility.

2.17 Findings from the review, supplemented by additional information and evidence identified by the Department from the published literature, as well as engagement with key stakeholders, are discussed further below.

<sup>4</sup> Postgraduate Tuition Fee Loans are available to NI-domiciles undertaking eligible taught courses at postgraduate level, but not research courses at postgraduate level (such as PhDs).

## Review Objective 1

### The PGA Scheme in the wider context of annual recurrent research and innovation funding

#### THE DUAL SUPPORT SYSTEM

- 2.18 Funding supporting the PGA Scheme (while contingent on budget availability each year) is considered as a ringfenced element of the annual wider block grant that is provided to universities to promote the financial sustainability of research and innovation (R&I) and to help meet the full economic cost of externally secured R&I funding. When considering potential policy options for the PGA Scheme going forward, it is important to consider the Scheme both in the context of annual recurrent R&I funding provided by the Department to NI universities and the wider context of government R&I funding across the UK.
- 2.19 Government funding for R&I in universities is crucial for several reasons. Firstly, it enables universities to conduct cutting-edge research that addresses societal challenges and pushes the boundaries of knowledge. Secondly, it provides resources for the development of new technologies, products, and services, which can drive economic growth and competitiveness. Additionally, government funding often supports interdisciplinary collaborations and partnerships between academia, industry and government agencies, fostering innovation ecosystems that benefit society as a whole. Moreover, it helps attract and retain top talent, including researchers and students, by providing financial support for their work and studies. Overall, government funding plays a pivotal role in fuelling the engine of R&I within universities, leading to tangible benefits for the academic community, the economy and society at large.
- 2.20 Government support for R&I in UK universities is funded through a system of dual support where UK-wide, competitively awarded project and programme specific grants, issued centrally by Department for Science, Innovation and Technology (DSIT) via UK Research and Innovation (UKRI) research councils, sit alongside a strategic block grant awarded by the four UK National Funding Bodies<sup>5</sup> to respective universities.
- 2.21 The dual support system recognises the complementarity of the approaches to funding research. Project-specific funding can be directed towards national priorities and respond to new ideas and opportunities identified by researchers across the research base. Block grant R&I funding to institutions provides the stability and flexibility for universities to create and sustain the conditions for excellent research activity and impactful innovation links through long-term, agile strategic investment.

<sup>5</sup> Research England, Scottish Funding Council, Higher Education Funding Council for Wales and Department for the Economy NI.

- 2.22 UK universities can apply for project-specific R&I grants from a variety of organisations including the UK Research Councils and Innovate UK. These grants are allocated competitively through an established process dependent on expert review. Project-specific grants tend to cover up to 80% of the full costs of the R&I activity; universities can use their strategic institutional funding to support the remaining costs. This approach links the two arms of dual support, preventing a transactional approach to project-specific grant funding.
- 2.23 The strategic institutional block grant funding delivered by UK national Funding Bodies for both research and innovation is referred to as Quality-related Research (QR) funding and the Higher Education Innovation Fund (HEIF) respectively. This R&I funding is allocated via a funding formula, on the basis of university research and innovation performance and can be used flexibly by universities for activities that support their individual strategic R&I priorities and it enables them to compete effectively for competitive UK wide and international (project specific) R&I funding.
- 2.24 The total amount of block grant funding is relatively stable year on year, allowing universities to establish longer term priorities and supports universities to remain globally competitive by:
- identifying and pursuing new and emerging priorities and promising lines of research as they see fit;
  - supporting the research environment and infrastructure for project-specific activities funded by the research councils and other funders;
  - supporting innovation links including research funded by Innovate UK, local or external partners;
  - growing and sustaining a diverse academic workforce;
  - training the next generation of researchers and innovators, and allied professionals;
  - investing in long-term approaches to capacity-building;
  - maintaining investment in research to bridge funding gaps between project-specific grants;
  - partnering with businesses, charities and other organisations;
  - commercialising and exploiting research and other knowledge and expertise assets;
  - leveraging additional research funding from other sources; and
  - aligning strategic interests with local and national priorities.

2.25 QR funding is directed towards research and is allocated to universities based on the quality, volume and relative cost of research in different subject areas. Research quality is measured in a periodic exercise known as the Research Excellence Framework (REF). HEIF is directed toward innovation and is allocated to universities using performance data from the UK wide Higher Education Statistics Agency (HESA) knowledge exchange survey (HEBCI survey<sup>6</sup>) primarily using knowledge exchange income as a proxy for impact on the economy and society. While each UK Funding Body allocates an annual strategic block R&I grant to universities, the total amount allocated and the funding formula that determines the distribution of this funding is different for each Funding Body.

#### *Impact and importance of level of QR and HEIF funding*

2.26 There is extensive evidence on the importance of QR and HEIF funding in the UK system and in particular on the strong return on investment. Universities play a pivotal role in the national research, innovation and skills ecosystem and are therefore central to economic development, acting as long-term, sustainable anchor institutions that connect key partners and priorities across education and skills, knowledge creation and innovation. Despite this, the level of NI QR and HEIF funding has consistently been the lowest (per capita) of all UK nations and the gap has been widening over time, see Table 2 below.

	2017-18 (million)	2018-19 (million)	2019-20 (million)	2020-21 (million)	2021-22 (million)	2022-23 (million)	% (2022-23)
<b>England</b>	1,791	1,794	1,872	2,057	2,115	2,335	83.6%
<b>Scotland</b>	279	296	285	290	294	299	10.7%
<b>Wales</b>	81	79	92	96	103	106	3.8%
<b>NI</b>	51	51	51	51	51	51	1.8%

**Table 2 – Total annual block grant (QR and HEIF) 2017-2023 across the UK nations**

2.27 Evidence also points to a strong correlation between the amount of QR allocated by a national HE funding body and that nation's drawdown of externally provided competitive funding from UKRI (which, in 2022-23, equated to £2.4bn). This confirms the importance of QR in supporting and developing the research capacity and capability of universities and enabling them to perform more competitively against peers in leveraging additional funding from external sources.

6 [Higher Education Provider Data: Business and Community Interaction.](#)



2.28 NI provides a recurrent QR allocation of c.46.6m (2023-24). This represents 1.9% of the total QR funding allocated across the UK (see Figure 1 below), but if considered in light of the size of Barnett share, NI would expect have 2.9% of the total QR to allocate. In practice, this means that NI universities are underfunded in terms of QR in comparison with UK peers.

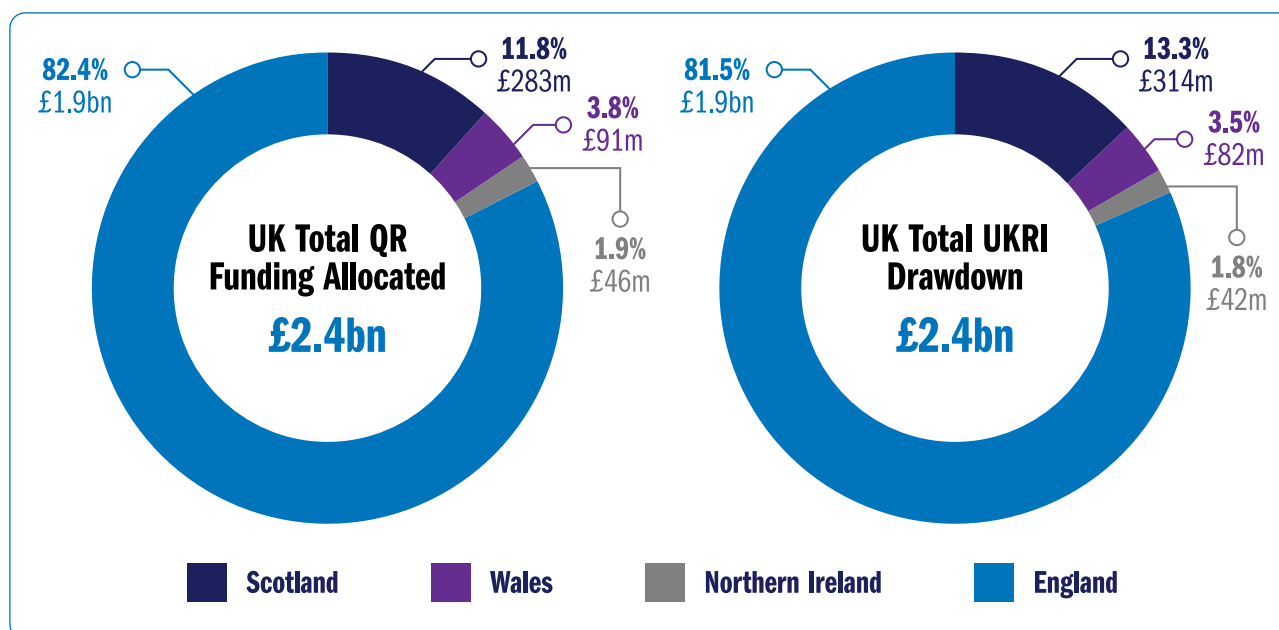


Figure 1 – UK dual support system – correlation between QR and UKRI funding (2022/23)

2.29 There is also strong evidence in terms of the high return on investment for knowledge exchange funding (i.e. HEIF) with UKRI estimating c.£8.30 generated for every £1 of HEIF funding provided. The level of HEIF in NI has remained static at c.£3.96m p.a. for over 10 years, with funding rising by 55% in Scotland and 43% in Wales since 2019, see Table 3 below.

2.30 A 2023 Review of HEIF highlighted its strategic importance in driving commercialisation and engagement between business and academia, however, NI universities perform well in terms of level of income from knowledge exchange despite NI HEIF funding being significantly lower than equivalent levels in Britain.

Nation	Knowledge Exchange funding (HEIF)	Indicative % change
England	£260m (+£20m supplement for top performing universities)	+66% since 2013
Scotland	£20.9m	+55% since 2019
Wales	£15m	+43% since 2019
NI	£3.96m	+0% since 2013

Table 3 – Level of HEIF across UK nations and indicative change over time

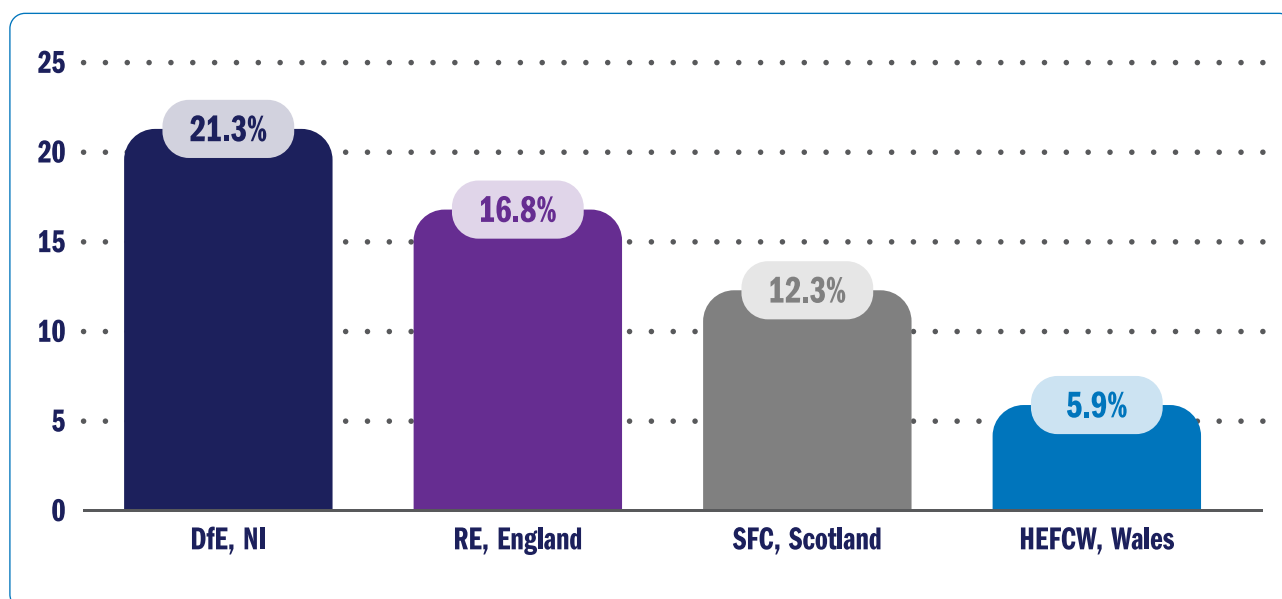


### *PhD support and the PGA Scheme as part of annual research and innovation funding*

2.31 As outlined above, the principal means of support for R&I provided by UK National Funding Bodies is via an annual strategic block grant comprising of QR and HEIF. While universities have discretion to spend the block grant on their own strategic R&I priorities, the allocation to each university is determined by a funding formula, set by each funding body. The QR funding formula, comprises a number of elements which are common to four National Funding Bodies:

- i. Mainstream QR, based on Research Excellence Framework results;
- ii. Support to meet the Full Economic Cost of externally secured research project funding; and
- iii. Support for the supervision of post graduate research (PGR) students.

2.32 The weighting of each of these elements is determined by each funding body according to their respective national R&I priorities. NI has the highest weighting for QR PGR Supervision support among UK funding bodies, demonstrating the importance placed on PhDs by NI. (see Figure 2 below). The percentages shown in Figure 2 do not include the funding associated with the PGA Scheme. Thus, when combined, direct support for PhDs (QR PGR Supervision support plus PGA Scheme funding) accounts for 44% of annual R&I funding allocated to NI Universities.



**Figure 2 – QR PGR Supervision element as percentage of QR across UK Funding Bodies**

2.33 While QR and HEIF comprise the vast majority of the annual block R&I grant allocated by UK National Funding Bodies to respective universities, and are typically non-directive, there are some instances where a portion of the annual block grant is topsliced/ringfenced for a specific priority programme or programmes. Research England ringfence approximately 5% of annual block grant funding for specific priority programmes, with a smaller percentage in place in Scotland and Wales. By comparison, in NI, the PGA Scheme, which is currently allocated separately from the annual block grant, would constitute 27% of total annual R&I funding provided to NI universities.

## Review Objective 2

### Report on the demand for and supply of PhDs

#### DEMAND FOR PHDS

##### *Social and economic benefits of PhDs*

- 2.34 Studies have found that investing in PhD studentships can provide significant social and economic benefits for both individuals and organisations. The social value of PhDs can be shown to impact on three broad areas: enhancing human capital (students developing strong communication, problem-solving and collaboration skills); knowledge dissemination (where the research is used to educate and/or inform policy) and broader contribution to society (where research may address social issues such as inequality, sustainability, or ethical concerns) (Read et al., 2024<sup>7</sup>).
- 2.35 The economic impact of promoting higher education and the benefits that a high number of PhDs can have for the economy have been articulated in many academic papers. Doctoral education is widely accepted as being important in a world where knowledge is a key driver for economic growth, especially in a 'knowledge-based economy' (Brinkley, 2006<sup>8</sup>; Leadbeater, 1999<sup>9</sup>). Tertiary education supports the supply of skilled workers in the form of PhDs and postgraduate researchers and enhances the conditions for innovation, with substantial social and economic benefits (McNeil and Silim, 2012<sup>10</sup>).
- 2.36 A knowledge economy is dependent on capacities for innovation, knowledge-generation and complex problem-solving – capacities attributed to university graduates with research degrees (Paolo and Mañé, 2016<sup>11</sup>). Although many jobs do not formally require a PhD qualification, employers generally value the enhanced skills and knowledge that PhDs bring (Diamond et al, 2014<sup>12</sup>), including strong problem-solving skills, and the ability to communicate complex information strategies and to think creatively. Specific knowledge which links to companies' specific business needs is particularly valued by employers in the science and technology industry, where there is a need for high level specialised skills or where more general subject knowledge enables graduates to develop understanding and capability quickly.

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7 [A review of the economic and social value produced through funding PhD students by Read et al.](#)

8 [Defining the Knowledge Economy Report by Brinkley](#)

9 [Living on Thin Air: The New Economy by Charles Leadbeater.](#)

10 [Massification and Diversification as Complementary Strategies for Economic Growth in Developed and Developing Countries by Dr Tyndorg and Dr Glass.](#)

11 [Misusing our Talent? Overeducation, overskilling and skill underutilisation among Spanish PhD graduates by Di Paolo and Mañé.](#)

12 [The impact of doctoral careers by Dr Diamond et al.](#)

- 2.37 PhD graduates hold the highest education degree. They have been trained to conduct research and can be considered a key element in the creation, commercialisation and diffusion of innovation which is considered central to enhancing economic growth (Garcia-Quevedo et al, 2020<sup>13</sup> and Buesa, et al 2010<sup>14</sup>). PhD holders who have accumulated substantial human capital through education have been identified as ‘one of the key actors behind the creation of knowledge-based economic growth’ (Auriol et al., 2010<sup>15</sup>). PhDs produce new knowledge through their research, which can be applied to solve real-world problems and create value for businesses and society. This knowledge creation contributes to the expansion of intellectual capital and the development of new products, services, and processes.
- 2.38 Research has shown that countries that produce a higher proportion of PhDs and postgraduates (particularly in science and engineering) experience larger increases in productivity than those countries that produce graduates in general (Singh, 2018<sup>16</sup>). Within any country, productivity appears to rise as the proportion of postgraduates generally in the workforce rises (Bernard H. Casey, 2009<sup>17</sup>).
- 2.39 Quantitative data and specific research on the benefits of PhDs to an economy or a specific business is limited. However, a study by Wakelin (1999<sup>18</sup>) showed that firms who were characterised as ‘innovators’ had export sales that were less sensitive to costs and more sensitive to R&I spillover benefits.
- 2.40 Returns to business of hiring postgraduates or PhDs could be in terms of becoming more profitable, productive or competitive in the long run, however quantifiable evidence of the impact of education level on employers in the UK remains limited (Bhutoria, 2016<sup>19</sup>).
- 2.41 While PhDs are generally acknowledged to be a valuable contributor to the economy, it is difficult to separate the demand for R&I enabling PhDs from those that are not. A 2014 report from CFE Research<sup>20</sup>, looking at the destination of PhD graduates some 7-9 years after graduation, found that only 24% of survey respondents were working in *predominantly* research roles in Higher Education or elsewhere, but noted that this is likely to be an underestimate of doctoral graduate involvement in research, as those working in HE teaching roles were also likely to undertake some research activity.

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13 [Driving sectoral sustainability via the diffusion of organizational eco-innovations by Garcia-Quevedo et al.](#)

14 [The determinants of regional innovation in Europe: A combined factorial and regression knowledge production function approach by Mikel Buesa et al.](#)

15 [Careers of Doctorate Holders by Laudeline Auriol.](#)

16 [Comparing research productivity of returnee-PhDs in science, engineering, and the social sciences by V. Singh.](#)

17 [The economic contribution of PhDs by B.H. Casey in Journal of Higher Education Policy and Management.](#)

18 [Innovation and export behaviour at the firm level by K. Wakelin.](#)

19 [Economic Returns to Education in the United Kingdom by A. Bhutoria.](#)

20 [The impact of doctoral careers by Dr A Diamond et al.](#)

### *Impact of investment in postgraduate education*

- 2.42 An element of the argument of many economists who maintain that the social return of higher education exceeds private return is the existence of ‘spillover effects’ (Moretti, 2003<sup>21</sup>). The sharing of knowledge and skills may generate positive externalities and spillovers which can then result in economic and non-economic benefits to the wider society.
- 2.43 Subsidising the cost of postgraduate education can be considered as contributing to the enhancing of NI’s wider R&I activities, as collaborations between businesses and postgraduate researchers are most likely to result in innovation outputs for the firms (Cruz-Castro et, al. 2005<sup>22</sup>). Although, this is dependent upon NI’s ability to retain and employ PhD graduates in NI.
- 2.44 The relationship between investment in human capital and its associated effect on Gross Domestic Product (GDP) has been studied by many economists throughout the 20th and 21st centuries. Studies have found that additional years of education have a significant positive influence on GDP per capita (Heckman & Klenow, 1997<sup>23</sup>, and Patrinos & Psacharopoulos, 2013<sup>24</sup>). Building on this, Sianesi and Van Reenen (2003<sup>25</sup>) concluded that there is strong empirical evidence that human capital increases productivity, suggesting that education is productivity-enhancing. This study found that a one-year increase in the duration of an individual’s education is found to raise the level of output per capita between 3% and 6%.
- 2.45 Furthermore, Patrinos & Psacharopoulos (2013) used data from 114 countries between 1985 – 2005 to show how one extra year of education resulted in a reduction of the Gini coefficient (the most common means of measuring inequality in the distribution of household income), by 1.4% points.

### *Evidence of wider support for Postgraduate and PhD Studentships*

- 2.46 In May 2022, the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) launched [Impact 2030, Ireland’s national research and innovation strategy to 2030](#). Impact 2030 sets the ambition of Ireland being a global leader in nurturing, attracting and retaining talent to drive research and innovation in higher education, enterprises, communities and public services.
- 2.47 Impact 2030 also aims to widen the impact of PhD graduates through greater mobility into other sectors, for example, the public sector and civic society organisations.

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21 [Estimating the social return to higher education: evidence from longitudinal and repeated cross-sectional data by E Moretti.](#)

22 [The employment of PhDs in firms: trajectories, mobility and innovation by Cruz-Castro and Sanz-Menéndez.](#)

23 [Human Capital Policy by Heckman and Klenow.](#)

24 [Chapter 5 - Education: The Income and Equity Loss of not Having a Faster Rate of Human Capital Accumulation by Patrinos and Psacharopoulos.](#)

25 [The Returns to Education: Macroeconomics by Sianesi and Van Reenan.](#)

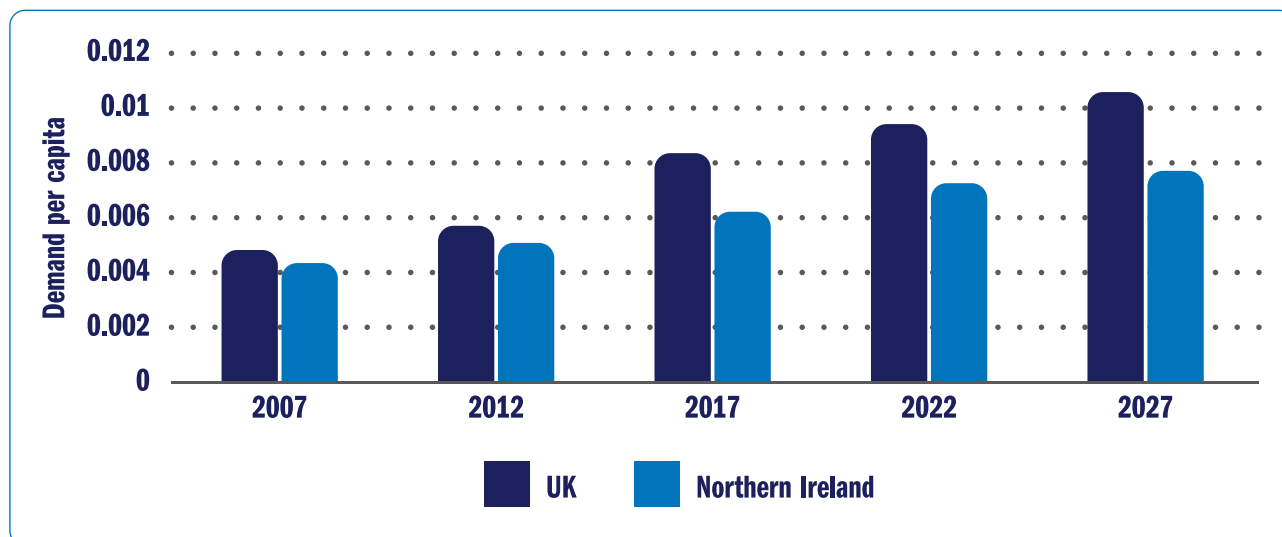
- 2.48 A number of recent UK Government strategies have also recognised the importance and value of a postgraduate research talent pipeline in developing a knowledge economy. These include:
- [UK Research and Development Roadmap](#) – published July 2020
  - [Build Back Better – Plan for Growth](#) – March 2021
  - [R&D People & Culture Strategy](#) – published July 2021
  - [UKRI 5 Year Strategy](#) – published March 2022
  - [New Deal for Postgraduate Research](#) – June 2022
  - [UKRI Corporate Plan](#) – September 2022
- 2.49 The UK Research and Development Roadmap outlines the UK Government’s objectives of becoming a “science superpower” and raising investment in R&D to 2.4% of GDP by 2027. All of the documents listed above refer to attracting, developing and retaining people within the research and innovation system to build on the UK’s strengths and meet future challenges. A talent pipeline of skills is also vital for the future of business innovation and private sector investment in R&D as an ongoing supply of highly skilled people will be required to generate a step change in private sector R&D. The UK Government’s R&D People & Culture Strategy estimated that an additional 150,000 researchers and technicians would be required by 2030 to sustain the UK’s target of 2.4% of GDP and therefore meet future demand.
- 2.50 Several UK Government strategies, including the [UK Industrial Strategy \(2018\)](#), the [Build Back Better Plan \(2021\)](#) and the [Research and Development Roadmap \(2021\)](#) reference the importance of PhD skills in relation to innovation in specific sectors. This is important to note as the PGA Scheme, in its current form, does not provide this strategic targeted emphasis on specific NI sectors or an innovation strategy.
- 2.51 Selected comparator countries for the review of the PGA Scheme (Austria, Sweden and Switzerland) also recognise the value of PhDs and PhD research skills for their economies and their ability to be competitive and to innovate. These three countries are considered ‘Small Advanced Economies’ with a small number of universities and were therefore chosen as appropriate comparators. PhD and other degree course fees in these comparator countries are either much lower than in the UK or there are no such fees at all. This requires some form of government support for PhD and similar research focused studentships, which could be considered to allow government more opportunity to be directional with how public funds are distributed to universities and those undertaking research degrees. However, it could be argued that such support is available in NI through existing UKRI scheme funding for tuition fee and living allowance stipends, and the postgraduate research supervision element of QR funding, as well as through the ringfenced PGA Scheme funding.

2.52 Both NI universities, Queen’s University Belfast (QUB) and Ulster University (UU), have research strategies in place<sup>26</sup>. QUB’s research strategy within its *Strategy 2030* strategic plan acknowledges the need to support postgraduate education and the need to encourage collaboration for postgraduate researchers. UU cites the establishment of the UU Doctoral College as a key commitment to their Research Strategy 2017-22 and a focal point for doctoral training and researcher development. At recently convened stakeholder workshops, representatives from both universities stated that PhD studentships were a crucial element of their R&I talent strategy.

#### *Statistical data demonstrating demand for PhD graduates*

2.53 The review of the PGA Scheme examined [Working Futures 2014-24](#) and [Working Futures 2017-27](#) which provide data on UK long-run labour market and skills projections, including data on the current and projected demand of PhDs in the UK and NI.

2.54 Working Futures 2017-27 data shows that the overall demand for doctorate degrees<sup>27</sup> in both the UK as a whole and NI has grown year-on-year from 2007 to 2017 and is predicted to increase up to 2027. Whilst both regions have experienced, and are predicted to continue experiencing, growth in the demand for doctorate degrees, the UK as a whole has more demand per capita than NI, (see Figure 3 below).



**Figure 3 – Demand for doctoral degrees per capita in the UK and NI (2007-27)**

26 [Queen's University Belfast Strategy 2030](#) and [Ulster University Research Strategy 2023-2028](#).

27 Defined as Regulated Qualifications Framework (RQF) Level 8 in Working Futures (2017-2027).

2.55 The rate of predicted PhD demand growth is slowing, as depicted in Figure 4 below. Annual growth in the demand for doctorate degrees is predicted to reach 2.8% for the UK and just 1.7% for NI for the period of 2022 to 2027. This is a reduction compared to the growth in demand for PhDs seen in the period 2012-2017, for both the UK and NI. This suggests that demand will continue to grow, albeit at a rate that is dropping.

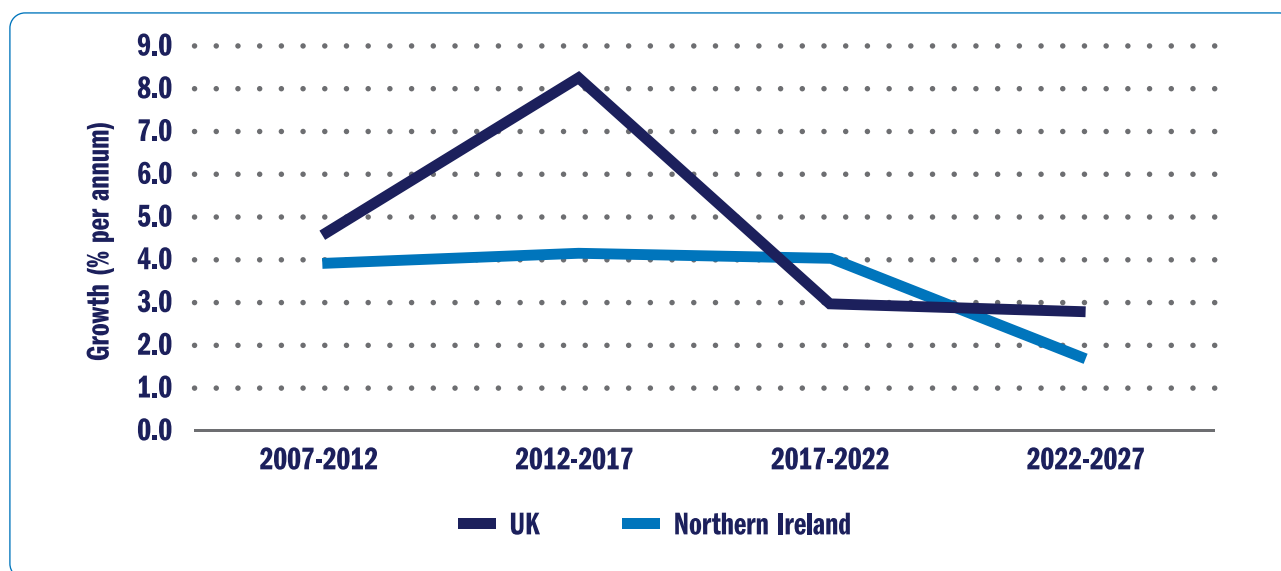


Figure 4 – Annual demand growth rates (historical & projected) PhDs 2007-2027

#### *Demand for PGA Scheme studentships from students*

2.56 Both universities in NI reported strong demand from students for funded places on the PGA Scheme, as shown in Tables 4 and 5 below.

Year	No. of QUB Applicants	Awarded DfE Funding
2019-20	1,202	173
2020-21	1,802	199
2021-22	1,359	172
2022-23	1,566	157

Table 4 – QUB applications for PhD studentships and number awarded DfE funding

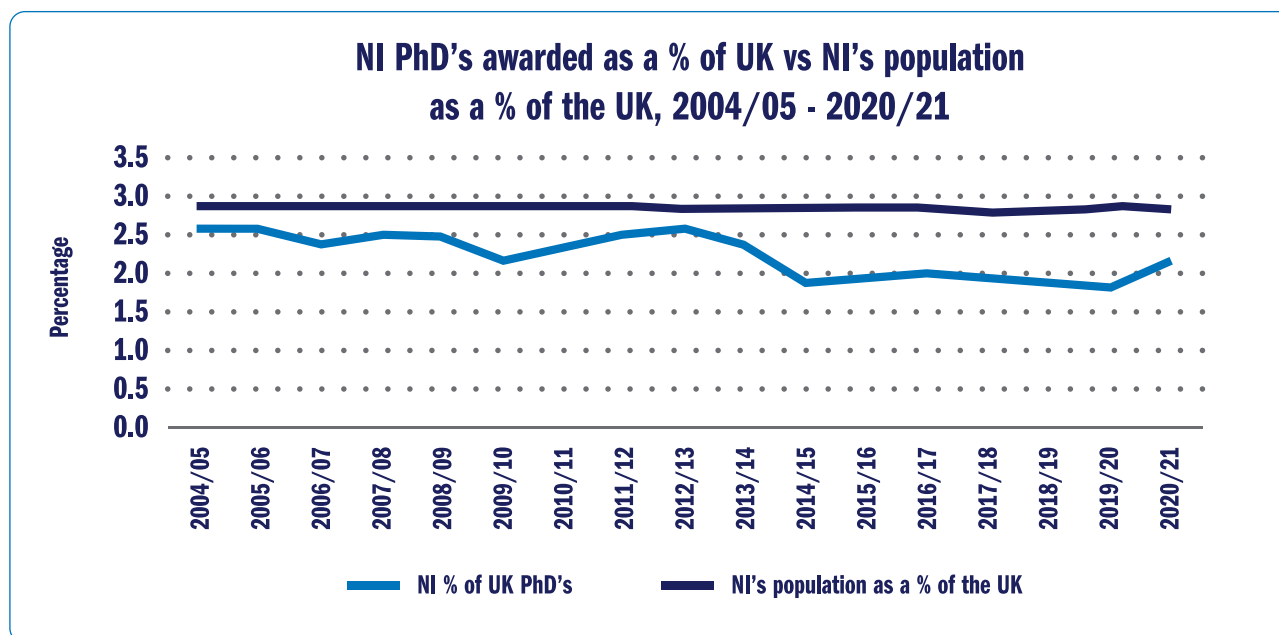
Year	No. of UU Applications	DfE Eligible Applications
2022	857	218
2023	1760	308
2024	2202	331

Table 5 - UU applications for PGA Scheme studentships and number of eligible applicants



## SUPPLY OF PHDS

2.57 The number of PhDs funded in NI has historically been lower than the rest of the UK (based on population share). The original rationale to establish the PGA Scheme appears to have been to close this gap and indeed, even with the highest UK national funding body weighting of QR PGR and additional ringfenced funding supporting the PGA Scheme, NI is still lower than the UK average (see Figure 5 below).



**Figure 5 – PhDs awarded in UK as % of population**

2.58 [A 2018 Knowledge Economy report](#) published by Catalyst Inc looking at NI's PhD ecosystem found that, even with the PGA Scheme, NI ranked 10th out of the 12 UK regions regarding number of PhD holders per million inhabitants, at 70% of the overall UK average<sup>28</sup>.

### *Funding for PhDs across the UK*

2.59 There are seven main sources of PhD funding across the UK. These are mixture of competitive and non-competitive funding sources:

<b>Competitive (UK and International) PhD funding</b>	
<b>1</b>	UK central government funding via UKRI Research Councils (available to universities in England, Scotland, Wales, and NI)
<b>2</b>	Charity / Trust funding for PhD students
<b>3</b>	Industry / Private sector funding of PhDs
<b>4</b>	International sources, including EU Funds (e.g. Horizon Europe)
<b>Non-competitive PhD funding:</b>	
<b>5</b>	Self-funding by PhD student (or via doctoral loan in England and Wales)
<b>6</b>	University funded PhD studentships, supported via UK National HE Funding Body annual R&I block grant (PGR supervision element of QR – as per para 2.31 and Figure 2 above)
<b>7</b>	DfE PGA Scheme (specific to Northern Ireland)

2.60 In 2020/21, (most recent data from the HE Statistics Agency, HESA), over 100,000 PhDs were funded in the UK. The largest source of PhD funding in the UK continues to be self-funded PhDs, accounting for almost 40% of the UK total. These are followed by university funded PhDs (supported via UK HE funding body annual recurrent block grant) at 20% and by UKRI Research Council funding at 15% (see Table 6 below).

<b>Funding Source</b>	<b>UK Total</b>	<b>% of UK total</b>
<b>Self-funded (by student)</b>	39,405	37%
<b>University funding</b>	21,065	20%
<b>UKRI Research councils</b>	16,320	15%
<b>Overseas Gov / Provider</b>	8,055	8%
<b>Industry</b>	4,995	5%
<b>UK Central Government</b>	2,475	2%
<b>Charity</b>	2,460	2%
<b>Total for funding sources listed above</b>	94,775	89%
<b>Total PhDs</b>	106,885	100%

**Table 6 – Main funding source for UK PhD enrolments in 2020/21 (HESA)**

2.61 UK Government support for R&I is provided by the Department for Science, Innovation and Technology (DSIT) to UKRI. In the 2022 to 2023 financial year UKRI invested £647 million in postgraduate research studentships and fellowships. This accounted for 8% of UKRI's total investment.

2.62 Table 7 below shows each Research Council's budget and portion of the overall budget (Note: this is funding for the total 2022-23 to 2024-25 period and is overall Research Council funding – not specific to studentship provision).

<b>UKRI Research Council</b>	<b>Budget</b>	<b>%</b>
<b>Engineering and Physical Sciences Research Council (EPSRC)</b>	£1.93bn	7.69%
<b>Medical Research Council (MRC)</b>	£1.65bn	6.57%
<b>Science and Technology Facilities Council (STFC)</b>	£1.65bn	6.57%
<b>Biotechnology and Biological Sciences Research Council (BBSRC)</b>	£944m	3.76%
<b>Natural Environment Research Council (NERC)</b>	£925m	3.69%
<b>Economic and Social Research Council (ESRC)</b>	£362m	1.44%
<b>Arts and Humanities Research Council (AHRC)</b>	£207m	0.82%

**Table 7 – Overall Research Council funding allocations for 2022-23 to 2024-25**

2.63 Despite each Research Council contributing in some form to the wider UK Government strategy, in overall terms, the levels of funding allocated to each Council demonstrates a clear emphasis placed on STEM subject areas. This emphasis is further reflected in the [UK's latest Innovation Strategy plan](#), which states that “STEM skills are critical to the innovation process”. As a result of this, boosting the UK's profile as a hub for STEM development and education can be seen to be a priority moving forward, and is represented above by the fact that the top three Research Councils in terms of total funding allocated are EPSRC, MRC, and STFC.

2.64 The PGA Scheme represents a significant percentage of total NI university PhD provision (44% UU and 31% QUB, see Table 8 below), while the number of UKRI Research Council and university funded PhDs in NI is significantly lower than the UK average (9% and 7% compared to 15% and 20% respectively). It can reasonably be expected that any re-allocation of current Scheme funding to block grant R&I funding would increase the number of university funded PhDs, indeed this has been observed in respect of additional in-year allocations of R&I funding provided in 2023/24.

<b>Funding Source</b>	<b>QUB</b>	<b>% of QUB enrolments</b>	<b>UU</b>	<b>% of UU enrolments</b>	<b>NI Total</b>	<b>% of NI Total</b>	<b>UK Total</b>	<b>% of UK Total</b>
<b>Self-funded (by student)</b>	440	23%	245	43%	685	28%	39,405	37%
<b>University funding</b>	185	10%	0	0%	185	7%	21,065	20%
<b>Research councils</b>	210	11%	0	0%	210	9%	16,320	15%
<b>Overseas Gov / EU provider</b>	225	12%	0	0%	225	9%	7,870	7%
<b>Industry</b>	30	2%	0	0%	30	1%	4,995	5%
<b>UK Central Government</b>	75	4%	0	0%	75	3%	2,475	2%
<b>Charity</b>	40	2%	0	0%	40	2%	2,460	2%
<b>DfE PGA Scheme</b>	590	31%	250	44%	840	34%	N/A	N/A
<b>Total</b>	1900	100%	570	100%	2470	100%	106,885	100%

Table 8 – Funding source for PhD enrolments in 2020/21

## Review Objective 3

### Evidence on the impact and VFM of the PGA Scheme

2.65 The review of the Scheme, which concluded in September 2023, was limited in terms of substantive data analysis into impact and VFM, largely due to an absence of identified specific and measurable objectives established for the Scheme, against which impact could have been assessed.

#### *Impact on increasing competitive funding drawdown*

2.66 The only explicitly stated objective of the Scheme relating to impact/VFM was the expectation that it should enable NI universities to improve on historically low drawdown of UK wide competitive research funding from UKRI research councils. NI universities were able to confirm that the Scheme supported their ability to leverage additional funding and studentships through applications to other external funding sources, however, the conclusion of the reviewers of the PGA Scheme was that evidence does not suggest a substantially increased NI university drawdown of research council PhD funding, and pointed to the fact that NI still represents the lowest in the UK (Table 9 below). Whether or not the extent of the targeted support for PhDs via the PGA Scheme has acted as a disincentive to NI universities to pursue competitively funded PhDs was not able to be evidenced.

	UKRI PhDs awarded	% of UK
<b>England</b>	14,140	88.2%
<b>Scotland</b>	1,070	6.7%
<b>Wales</b>	605	3.8%
<b>NI</b>	210	1.3%
<b>Total</b>	14,350	100%

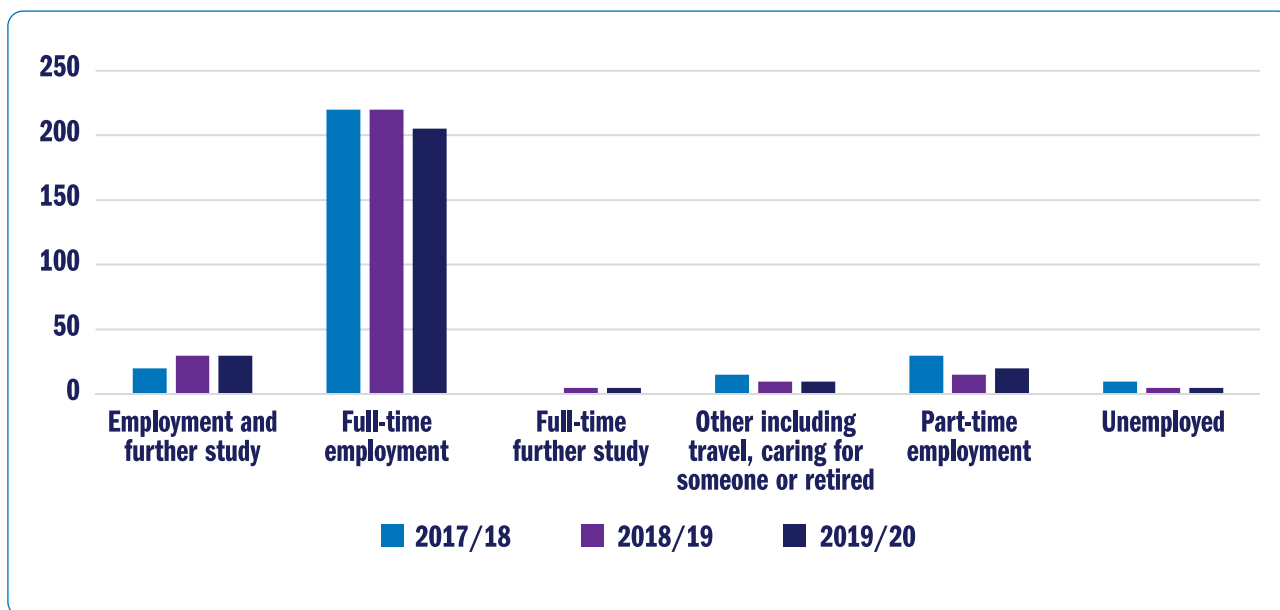
**Table 9 – UK nation drawdown of UKRI competitive PhD funding. Source - HESA 2021/22**

#### *Impact on graduate outcomes*

2.67 A further constraint found by the review to determining Scheme VFM was in relation to the destination tracking of PGA Scheme PhD students post award. The reviewers utilised data collected from “Graduate Outcomes”, an annual survey, carried out by HESA, which tracks outcomes and activity of all graduates in the UK, including PhD graduates.

2.68 While the survey does not have the granularity to segment PGA Scheme specific graduates, it may reasonably be assumed that, given the generic nature of PGA Scheme awards, the percentages are likely to be similar. Of the 1,405 doctoral graduates who graduated in NI across AYs 2017/18, 2018/19 and 2019/20, 870 (61.9%) responded to the HESA survey. Figure 6 details the work outcome survey responses for PhD graduates across the three AYs (n = 870).

- 2.69 As shown in Figure 6, most students (74.1%, n=645) across AYs 2017/18, 2018/19 and 2019/20 found full time employment. Some 7.5% (n=65) found part-time employment, 2.3% (n=20) were unemployed. The majority of students (61.5%, n=535) remained domiciled in NI, this includes all individuals living in NI regardless of employment status. Of those residing in NI, across the three AYs, 75.7% (n=405) found full-time employment, 8.4% (n=45) found part-time employment, and only 5 (0.9%) were unemployed. In totality, of those residing in NI across the three AYs, 93.5% were either in employment or further study (including those in full-time and part-time).
- 2.70 Of the 710 PhD students employed either full-time or part-time across the three AYs surveyed, most (73.9%, n=525) found employment in the UK, with only 11.3% (n=80) in European Union (EU) countries and 14.8% (n=105) outside of the UK and EU. A majority (63.4%, n=450) of employed PhD graduates are employed in NI, with 405 of these PhD graduates in full-time employment. Only 7.8% (n=55) and 2.1% (n=15) are employed in other UK nations.



**Figure 6 – NI PhD graduate work status AYs 2017/18, 2018/19 and 2019/20 (n=870). Source: HESA Graduate Outcomes survey.**

- 2.71 At the time of surveying, a lower proportion of undergraduates (55.7%, n=13,235) were in full-time employment than doctorates. Some 11.0% (n=2620) had found part-time employment and 8.1% (n=1,930) were in full-time further study, both higher proportions than for doctorate graduates. Some 3.8% (n=905) were unemployed, this is a small proportion higher than for doctorates. In general, a higher proportion of doctorates were in full-time employment compared with undergraduates, and a lower proportion were in the other key categories.

2.72 Figure 7 below details the NI postgraduate outcomes broken down by postgraduate degree subject area for AY 2019/20, excluding non-respondents. Of those who responded, full-time employment was highest for PhD graduates of the following subject areas: Media, journalism and communications (100%), Architecture, building and planning (79%) and Computing (79%) and was lowest for Historical, philosophical and religious studies (44%), Language and area studies (45%) and Combined and general studies (50%).

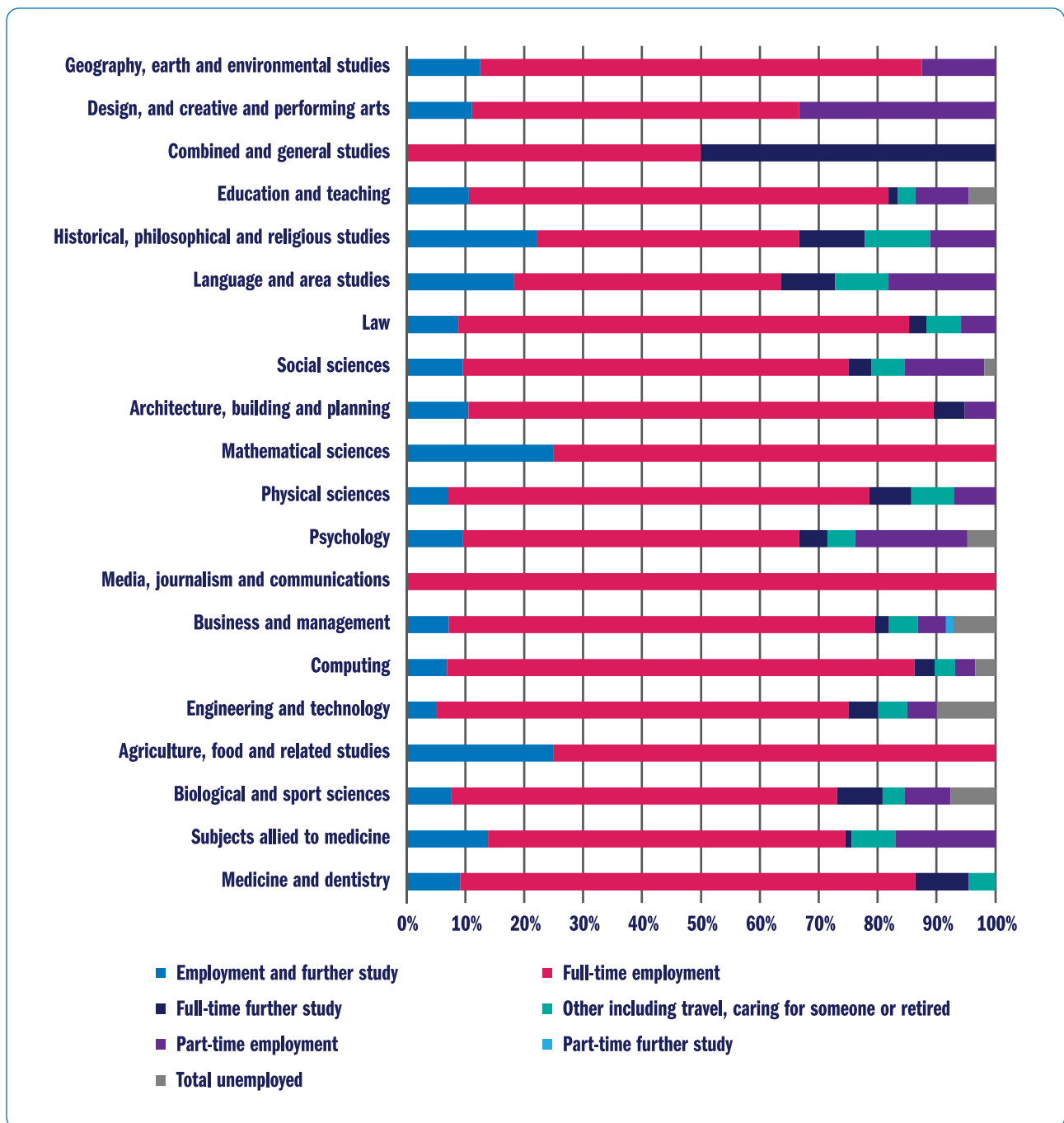


Figure 7 – Work outcomes by PhD subject area (n=870). Source: HESA Graduate Outcomes survey

2.73 Overall, HESA data shows that the vast majority of PhD graduates from NI universities go into employment and/or further study. Very few PhD graduates are unemployed at the time of being surveyed, demonstrating that a large proportion of PhD graduates go on to utilise the skills gained through the degree in either further employment or education, contributing to the economy. Of the PhD graduates from NI universities residing in NI a large proportion (93.5%) are either in employment or further study, this is a higher proportion than for those residing outside of NI (88%). This suggests that those remaining in NI had higher rates of success in obtaining employment or further education.

#### *Impact on Department's economic goals*

2.74 A specific area of focus for the review was to gather evidence on the degree to which the PGA Scheme supported the delivery of the Department's Economic Vision at that time, particularly in terms of the identified growth sectors: (1) Digital, ICT and Creative Industries, (2) Agri-Tech, (3) Fintech / Financial Services, (4) Advanced Manufacturing and Engineering and (5) Life and Health Sciences.

2.75 It was agreed that the identified growth sectors could be classed as broadly analogous to narrow STEM. Table 10 shows that 62.7% of PGA scheme PhDs could broadly be classified as aligned with the priority sectors. QUB (68%) has a higher percentage than UU (54%) and this can be explained by the university internal process of allocation. i.e. evenly across faculties (QUB have 3 faculties. 2 of which are narrow stem, UU have 4 faculties, 2 of which are narrow stem).



	JACS 3.0 subject area	QUB	UU	Total
Narrow STEM	(1) Medicine & dentistry	247	0	247
	(2) Subjects allied to medicine	131	268	399
	(3) Biological sciences	193	72	265
	(4) Veterinary science	0	0	0
	(5) Agriculture & related subjects	29	0	29
	(6) Physical sciences	226	50	276
	(7) Mathematical sciences	10	53	63
	(8) Computer science	59	48	107
	(9) Engineering & technology	168	44	212
<b>Total Narrow STEM</b>		<b>1063</b>	<b>535</b>	<b>1598</b>
Other	(A) Architecture, building & planning	39	72	111
	(B) Social studies	112	40	152
	(C) Law	46	24	70
	(D) Business & administrative studies	25	89	114
	(E) Mass communications & documentation	17	16	33
	(F) Languages	111	61	172
	(G) Historical & philosophical studies	66	29	95
	(H) Creative arts & design	39	99	138
	(I) Education	46	21	67
<b>Total Other</b>		<b>501</b>	<b>451</b>	<b>952</b>
<b>Total PhDs</b>		<b>1564</b>	<b>986</b>	<b>2550</b>
<b>Percentage of PhDs aligned with identified growth sectors</b>		<b>68.0%</b>	<b>54.3%</b>	<b>62.7%</b>

**Table 10 – PGA scheme PhDs (2016-21) as mapped against narrow STEM sectors**

2.76 Whilst an attempt was made to quantify Scheme impact and VFM based on mapping PGA recipient survey responses to standard occupational classifications (SOC), it was not possible to do this accurately for some of the classifications due the restricted sample size. A major information gap in relation to Scheme impact and VFM was the inability to determine the extent to which PGA Scheme graduates have contributed to the R&I objectives of NI businesses, including whether they were employed in a R&I related role post-graduation. The reviewers issued two surveys, one to be completed by general businesses in NI and one to be completed by businesses who participated in the PGA Scheme via a Collaborative Award in Science and Technology (CAST) PhD.

- 2.77 Unfortunately, businesses did not engage well with the survey and response rates were too low to enable the drawing of any representative conclusions. Subsequently, a simplified survey was issued by DfE to NI R&I active businesses, via industry representative bodies (including Matrix, HIRANI, Software Alliance, Manufacturing NI), and a slightly higher response rate was achieved (n=20). From responses received, 60% of the R&I active businesses currently employ PhDs and the same percentage envisaged a requirement for PhDs in the next 3 years, however respondents ranked their demand for Master's (level 7) and undergraduate degrees (level 6) as being higher than for PhD graduates, in support of their R&I activities.
- 2.78 While the priorities of individual businesses may be more likely to be focused on the short to medium term skills needs, during engagement with the main industry bodies in NI, representatives emphasised the importance of taking a strategic approach to supporting the talent pipeline and investing in skills that will be needed by the NI economy over a longer-term, thus future-proofing our approach to advancing innovation and growth. A number of letters of support from businesses for PhDs and the PGA Scheme were also provided to the Department by representatives of the universities.
- 2.79 Although based on anecdotal evidence from a small interview sample, the review highlighted the perceived value and positive impact of university/Industry collaborative (CAST) PhDs. The main differences between CAST and general PhDs are that, with CAST awards, it is possible to measure demand from industry and to track the destination of PhD students throughout their period of study. There is also an assurance that the research undertaken directly contributes to the R&I objectives of the collaborating business. In addition, a condition for CAST-participating businesses is that they must make a financial contribution to the student (typically an additional 25% of the DfE award) which increases Business Expenditure on Research & Development (BERD), leading to increased NI R&I spend and contributing to delivery of the Minister's ambition for increased productivity for NI.

<b>Consultation Questions</b>	
<b>Q1</b>	<b>Do you agree that the Department should ringfence R&amp;I funding provided to NI universities for funding PhD awards?</b>
<b>Q2</b>	<b>If funding for the PGA Scheme was increased, either by securing an increase in allocated R&amp;I funding or by increasing the proportion of the annual R&amp;I block grant ringfenced for PhDs, what impact do you think this would have?</b>
<b>Q3</b>	<b>If ringfenced support for the PGA Scheme was reduced, what impact do you think this would have?</b>
<b>Q4</b>	<b>If funding (currently ringfenced for the PGA Scheme) was redirected and allocated as QR/HEIF what impact do you think this would this have?</b>

## Review Objective 4

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### Options for the Scheme going forward

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- 2.80 The external review ultimately provided a list of recommendations for consideration, however, in the view of the Department, there was not enough specific evidence to allow a robust appraisal of potential options for the future of the Scheme. The review also highlighted the need for further engagement with key stakeholders to address key information gaps.
- 2.81 Accordingly, the Department held a number of workshops and conducted surveys with internal colleagues, industry representatives, businesses and the NI universities, post completion of the independent review. Shaped by evidence collated during this additional engagement with key stakeholders, a number of potential policy options have been proposed. These options are described in **Section 3** of this document.
- 2.82 There is a trade-off to be recognised between the approach of ringfencing R&I funding for specific priorities set by the Department (in this case, providing PhD studentships), or instead offering the universities the flexibility and autonomy to direct the funding in a way that best suits their strategic priorities and financial sustainability goals, and to potentially adopt a more agile response to emerging issues.
- 2.83 The approach, taken to date by the Department, of ringfencing a large proportion of the universities' R&I block grant funding for specifically for PhD studentships, avoids the need for research leads in the universities to specifically bid (internally in the institution) for funding for this purpose, and mitigates the risk that funding would be directed instead at competing priorities. In contrast, the approach largely adopted by other funding bodies in Britain and the south of Ireland does not ringfence funding for this purpose but rather offers universities more flexibility to direct the funding, whether this be to develop and nurture research talent, fund specific research projects, and/or to leverage additional funding from external sources.

#### *Changes to PGA Scheme Terms & Conditions*

- 2.84 In addition to consulting on the various options for the model and scale of the Scheme going forward, this consultation also seeks views on a list of potential changes to the existing terms and conditions (T&Cs), set out in **Section 4** of this document.
- 2.85 These proposed changes to the T&Cs are being considered with a view to enhancing the experience of PGA Scheme students, reducing bureaucracy for the universities administering the Scheme and widening the eligibility and accessibility criteria to attract and secure the best talent (e.g. introducing the option for part-time study, increasing quotas for international students, and facilitating improved access for students resident in the south of Ireland, in line with the Minister's ambition to improve north-south student mobility).

## Section 3 - Options for the PGA Scheme

<b>Option 1</b>	<b>Business as Usual. Continue to ringfence funding for the PGA Scheme at current level</b>
<b>Option 2</b>	<b>Business As Usual Optimised.</b> Continue to ringfence funding for PGA Scheme at current level with changes to optimise Scheme impact and align more closely with Ministerial priorities - (e.g. this could include a focus on specific sectors, with quotas set for place-based awards / students from specific backgrounds or with specific characteristics, or an increase in quotas for international / non-UK resident students).
<b>Option 3</b>	<b>Increase Scheme funding to support 1000 PhDs p.a.</b> (staged over 3 years, in line with PhD duration). Increase (by 37%) the number of funded PhDs from current level of 729 to 1000 p.a., as per original target of the DfE Higher Education Strategy “Graduating to Success” (2013-20), via securing an increase in allocated R&I funding <b>or</b> by increasing the proportion of the annual R&I block grant ringfenced for PhDs.
<b>Option 4</b>	<b>Reduce Scheme funding by 50%</b> (staged over 3 years in line with PhD duration) – continue to fund all industry/university collaborative (CAST) PhDs and a reduced number of general PhDs and seek to reallocate 50% of funding as annual block grant R&I funding.
<b>Option 5</b>	<b>Reduce Scheme funding by 80%</b> (staged over 3 years in line with PhD duration) – continue to fund university/Industry collaborative (CAST) PhD awards only and seek to reallocate remaining funding as annual block grant R&I funding.
<b>Option 6</b>	<b>Close the Scheme</b> (staged over 3 years in line with PhD duration) and seek to reallocate all funding as annual block grant R&I funding.

In addition to consulting on the various options for the model and scale of the Scheme going forward, this consultation also seeks views on proposed changes to the existing terms and conditions, described in **Section 4**. These proposed changes will only apply to options 1 to 5.

## SUMMARY APPRAISAL OF OPTIONS

### Option 1: Business as Usual

- Retains current balance between directive and non-directive annual research and innovation funding.
- Maintains the status quo of a ringfenced £19m p.a. for PhD studentships.
- Likely to maintain the current balance of 80% general PhD and 20% CAST awards (subject to the capacity of universities/industry to increase number of CAST awards vs general PhDs).
- DfE not prescriptive regarding sectors / subjects / student characteristics / location of studentships offered.

Option 1	Year 1 (AY 25-26)	Year 2 (AY 26-27)	Year 3 (AY 27-28)
<b>PGA Scheme</b>	£19.0m	£19.0m	£19.0m
<b>QR/HEIF</b>	£50.4m	£50.4m	£50.4m
<b>Total R&amp;I</b>	£69.4m	£69.4m	£69.4m

### Pros

- **The Scheme is administered by the universities who are familiar with the current Scheme.**
- **Preferred option of university research stakeholders.**
- **Provides flexibility to the universities to award studentships to meet their strategic (talent related) priorities.**
- **Assurance that NI will remain at a UK comparable level of number of PhDs awarded (per capita).**
- **Scheme helps to mitigate impact of absence of PhD loan facility for students in NI (although not specifically a research policy related objective).**
- **Department can demonstrate support for talent pipeline of higher skilled graduates.**

### Cons

- Risk that Scheme does not provide VFM.
- Expensive, and will increase each year (stipends rise in line with inflation).
- Insufficient evidence to demonstrate unmet demand from industry for PhDs to support current level of funding (i.e. 729 studentships p.a.).
- Lack of clarity over policy objectives and intended beneficiaries of the Scheme.
- Insufficiently detailed destination tracking of PGA Scheme participants, therefore difficult to measure VFM and set SMART objectives required by economic appraisal.
- Evidence suggests that PGA Scheme funding does not significantly increase drawdown of external (competitive) R&I funding.
- Opportunity cost in not allocating funding to QR/HEIF, where NI universities are underfunded in comparison to peers in Britain and thus leverage less externally provided (competitive) research funding, leading to lower level of Higher Education R&D spend in NI.

## Option 2: Business as Usual Optimised

- Retains current balance between directive and non-directive annual research and innovation funding.
- Maintains the status quo of a ringfenced £19m p.a. for PhD studentships.
- Likely to maintain the balance of 80% general PhD and 20% CAST awards (subject to the capacity of universities/industry to increase number of CAST awards vs general PhDs).
- Changes to optimise Scheme impact and align with Ministerial priorities - this could include a focus on research within specific sectors or disciplines or the provision of 'cohorts' or groups of PhDs working in collaboration within a specific priority area for NI. Such cohorts could be aligned with the Department's priorities on key Technologies and Clusters<sup>29</sup>, City & Growth Deals, or specific Centres for Doctoral Training, for example, those co-funded with UKRI Research Councils).
- Changes could also include quotas set for place-based awards, for students from specific backgrounds or with specific characteristics or an increase in quotas for international / non-UK resident students.
- There may also be the potential to introduce differential stipend levels for PGA Scheme awards to incentivise PhD students to carry out research on specific problems or issues relevant to NI society or the NI economy.

Option 2	Year 1 (AY 25-26)	Year 2 (AY 26-27)	Year 3 (AY 27-28)
<b>PGA Scheme</b>	£19.0m	£19.0m	£19.0m
<b>QR/HEIF</b>	£50.4m	£50.4m	£50.4m
<b>Total R&amp;I</b>	£69.4m	£69.4m	£69.4m

## Pros

- **Enables the Department to align the award of studentships to sectors meeting economic demand and focus funding to students in respect of widening participation.**
- **Similar to Business as Usual which is rated highly by university research stakeholders.**
- **Assurance that NI will remain at a UK comparable level of number of PhDs awarded (per capita).**
- **Department can demonstrate support for talent pipeline of higher skilled graduates.**
- **Scheme helps to mitigate impact of absence of PhD loan facility for students in NI (although not specifically a research policy related objective).**
- **Tying a portion of PGA Scheme funding for general PhDs to specific cohorts, priority clusters, co-funding UKRI Research Council bids or to areas aligning with Ministerial priorities could be expected to deliver more coordinated and tangible benefits for the NI economy.**
- **Brings NI up to a UK comparable level of number of PhDs awarded (per capita).**

29 [Approach to 10x technologies and clusters report](#)

## Cons

- Risk that Scheme does not provide VFM. (i.e. insufficient evidence to indicate that 729 awards p.a. is an appropriate number).
- Expensive, and will increase each year (stipends rise in line with inflation).
- Insufficient evidence to demonstrate unmet demand from industry for PhDs to support current level of funding (i.e. 729 studentships p.a.).
- Insufficiently detailed destination tracking of PGA Scheme participants, therefore difficult to measure VFM and set SMART objectives required to support economic appraisal.
- Evidence suggests that PGA Scheme funding does not significantly increase drawdown of external (competitive) R&I funding.
- Opportunity cost in not allocating to QR/HEIF, where NI universities are underfunded in comparison to peers in Britain and thus leverage less external (competitive) research funding required to increase NI R&I spend to deliver on the Minister's ambition for increased productivity for NI.
- Additional resource required to forecast and monitor ongoing economic demand for PhD graduates and identify gaps.
- Additional management information required from universities.
- Limiting the flexibility that the universities have to select the best candidates or to allocate PhD places to areas that align with their strategic research priorities and strengths may result in less-impactful outcomes and a perception that some disciplines are considered "less valuable" than others.



### Option 3: Increase Scheme funding to support 1000 PhDs p.a. (staged over 3 years)

- Expand Scheme in line with original target as stated in DfE Higher Education Strategy “Graduating to Success”.
- Likely to change the balance to c.90% general PhD and c.10% CAST awards (subject to the capacity of universities/industry to maintain number of CAST awards vs general PhDs).
- Could make changes to optimise Scheme impact and align with Ministerial priorities - this could include a focus on research within specific sectors or disciplines or the provision of ‘cohorts’ or groups of PhDs working in collaboration within a specific priority area for NI. Such cohorts could be aligned with the Department’s priorities on key [Technologies and Clusters](#), City & Growth Deals, or specific Centres for Doctoral Training, for example, those co-funded with UKRI Research Councils).
- Changes could also include quotas set for place-based awards, for students from specific backgrounds or with specific characteristics or an increase in quotas for international / non-UK resident students.
- There may also be the potential to introduce differential stipend levels for PGA Scheme awards to incentivise PhD students to carry out research on specific problems or issues relevant to NI society or the NI economy.
- To support the expansion an additional allocation of c.£7m p.a. would be required; alternatively, if no additional R&I funding is available, expansion of the Scheme could be supported by increasing the proportion of the annual R&I block grant that is ringfenced for PhDs.

### Pros

- **Could enable the Department to align the award of studentships to sectors meeting economic demand and focus funding to students in respect of widening participation.**
- **If expansion is achieved via an increase in overall annual R&I funding this would be welcomed by university research stakeholders.**
- **Assurance that NI will have a higher level of number of PhDs awarded (per capita) compared to UK average.**
- **Department can demonstrate support for talent pipeline of higher skilled graduates.**
- **Scheme would help to mitigate impact of absence of PhD loan facility for students in NI (although not specifically a research policy related objective).**
- **Tying a portion of PGA Scheme funding for general PhDs to specific cohorts, priority clusters, City & Growth Deals, co-funding UKRI Research Council bids or to areas aligning with Ministerial priorities could be expected to deliver more coordinated and tangible benefits for the NI economy.**

### Cons

- Risk that Scheme does not provide VFM. (i.e. insufficient evidence to indicate that 1000 awards p.a. is an appropriate number).



- If expansion is achieved via an increase in the proportion of the annual R&I block ringfenced for PhDs this would widen the existing funding gap between NI universities and peers in Britain in terms of QR and HEIF.
- Expensive, and will increase each year (as stipends typically rise in line with inflation).
- Insufficient evidence to demonstrate unmet demand from industry for PhDs to support increased level of funding (i.e. 1000 studentships p.a.).
- Insufficiently detailed destination tracking of PGA Scheme participants, therefore difficult to measure VFM and set SMART objectives required to support economic appraisal.
- Evidence suggests that PGA Scheme funding does not significantly increase drawdown of external (competitive) research funding.
- Opportunity cost in not allocating to QR/HEIF, where NI universities are underfunded in comparison to peers in Britain and thus leverage less external (competitive) research funding which would contribute to the increased R&I spend that is key to delivering on the Minister's ambition for increased productivity for NI.
- Additional resource required to forecast and monitor ongoing economic demand for PhD graduates and identify gaps.
- Additional management information required from universities.
- Limiting the flexibility that the universities have to select the best candidates or to allocate PhD places to areas that align with their strategic research priorities and strengths may result in less-impactful outcomes and a perception that some disciplines are considered "less valuable" than others.

Option 3	Year 0 (AY 24-25)	Year 1 (AY 25-26)	Year 2 (AY 26-27)	Year 3 (AY 27-28)
<b>PGA Scheme</b>	£19m	£21.4m	£23.7m	£26.0m
<b>QR/HEIF</b>	£50.4	<p><b>£50.4m</b> (if new funding secured for expansion)</p> <p><b>£48.0m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>	<p><b>£50.4m</b> (if new funding secured for expansion)</p> <p><b>£45.7m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>	<p><b>£50.4m</b> (if new funding secured for expansion)</p> <p><b>£43.4m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>
<b>Total R&amp;I</b>	£69.4m	<p><b>£71.8m</b> (if new funding secured for expansion)</p> <p><b>£69.4m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>	<p><b>£74.1m</b> (if new funding secured for expansion)</p> <p><b>£69.4m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>	<p><b>£76.4m</b> (if new funding secured for expansion)</p> <p><b>£69.4m</b> (if higher proportion of R&amp;I funding ringfenced for expansion)</p>

**Option 4: Reduce Scheme funding by 50% (staged over 3 years)**

- Fund all industry/university collaborative (CAST) PhDs and a reduced number of general PhDs.
- 50% reduction in PGA Scheme (staged over 3 years) with corresponding increase to QR and HEIF funding streams.
- Under this option changes could also be made to the arrangements for general PhDs to align more closely with Ministerial priorities - this could include a focus on research within specific sectors or disciplines, or the provision of 'cohorts' or groups of PhDs working in collaboration within a specific priority area for NI. Such cohorts could be aligned with the Department's priorities on key Technologies and Clusters<sup>30</sup>, City & Growth Deals, or specific Centres for Doctoral Training, (for example, those co-funded with UKRI Research Councils).
- There may also be the potential to introduce differential stipend levels for PGA Scheme awards to incentivise PhD students to carry out research on specific problems or issues relevant to NI society or the NI economy.

<i>Option 4</i>	<b>Year 1 (AY 25-26)</b>	<b>Year 2 (AY 26-27)</b>	<b>Year 3 (AY 27-28)</b>
<b>PGA Scheme</b>	£15.8m	£12.6m	£9.5m
<b>QR/HEIF</b>	£53.6m	£56.8m	£59.9m
<b>Total R&amp;I</b>	£69.4m	£69.4m	£69.4m

**Pros**

- **Could expect increased leverage of external R&I funding amounting to c.£11m p.a. by year 3.**
- **Increased flexibility for universities to allocate funding to their entire suite of R&I strategic priorities (including PhD studentships).**
- **Redirecting recurrent research funding to QR/HEIF would reduce the funding gap between NI universities and peers in Britain, making them more competitive in securing external competitive funding, leading to increased NI R&I spend and contributing to delivery of the Minister's ambition for increased productivity for NI.**
- **Tying a portion of PGA Scheme funding for general PhDs to specific cohorts, priority clusters, co-funding UKRI Research Council bids or to areas aligning with Ministerial priorities could be expected to deliver more coordinated and tangible benefits for the NI economy.**
- **Less expensive than options 1 & 2, reduced risk of poor VFM.**
- **Maintains provision for CAST PhD awards which directly support business and industry demand.**

## Cons

- Insufficient evidence to demonstrate demand from industry for PhDs to support level of funding (i.e. whether 365 studentships p.a. is appropriate).
- Insufficiently detailed destination tracking of PGA Scheme participants, therefore difficult to measure VFM and set SMART objectives required to support economic appraisal.
- Potential reduction to PhD studentships, (depending on extent to which universities opt to support PhDs via block grant R&I funding). This could reduce access to PhD places in view of current absence of PhD loan facility for students in NI.
- Not popular with university research representatives in light of concerns about potential reduction in number of PhD graduates to meet needs of research ecosystem in future.
- Evidence suggests that PGA Scheme funding does not significantly increase drawdown of external (competitive) R&I funding.

### Option 5 - Reduce Scheme funding by 80% (staged over 3 years)

- Fund university/industry collaborative (CAST) PhDs only.
- 80% reduction in PGA Scheme (staged over 3 years) with corresponding increase in QR and HEIF funding streams.
- Potential to tie the reallocated *additional* QR/HEIF allocation to some form of target on increasing external research funding drawdown, thus increasing the R&I spend that is key to delivering on the Minister's ambition for increased productivity for NI.

Option 5	Year 1 (AY 25-26)	Year 2 (AY 26-27)	Year 3 (AY 27-28)
<b>PGA Scheme</b>	£13.9m	£8.9m	£3.8m
<b>QR/HEIF</b>	£55.5m	£60.5m	£65.6m
<b>Total R&amp;I</b>	£69.4m	£69.4m	£69.4m

### Pros

- **Unlike for general PGA Scheme PhDs, the review found strong evidence of the impact of CAST PhDs throughout the studentship, and of demonstrable demand from industry, which would allow the setting of SMART objectives for the Scheme.**
- **Reduction in VFM risk, as demonstrable impact is measurable.**
- **Could expect increased leverage of external R&I funding amounting to c.£20m p.a. by year 3.**
- **Redirecting recurrent research funding to QR/HEIF would reduce the funding gap between NI universities and peers in Britain, making them more competitive in securing external competitive funding, leading to increased NI R&I spend and contributing to delivery of the Minister's ambition for increased productivity for NI.**
- **Universities have flexibility to allocate an appropriate portion of non-directive block grant R&I funding to support PhDs, according to their strategic research objectives.**
- **Reduced human resource requirement from Department to monitor and administer Scheme (compared to options 1, 2 and 3).**

### Cons

- Potential reduction to PhD studentships, (depending on extent to which universities opt to support PhDs via block grant R&I funding). This could reduce access to PhD places in view of current absence of PhD loan facility for students in NI.
- Uneven distribution of CAST awards at present (95:5 ratio between QUB & UU) while current allocation of Scheme funding is 66:33 ratio, therefore, to retain current funding ratio, an interim solution would need to be agreed.
- Potential risk that the Department could be open to criticism for reducing support provided for the highest skilled graduates depending on extent to which universities opt to allocate the block grant funding to non-PhD related R&I priorities.
- Not popular with university research representatives in light of concerns about potential reduction in number of PhD graduates to meet needs of R&I ecosystem in future.

### Option 6: Close Scheme (staged over 3 years) and allocate to QR/HEIF

- Close PGA Scheme and cease to provide ringfenced funding for PhD Studentships.
- Potential to tie the reallocated *additional* QR/HEIF allocation to some form of target on increasing external research funding drawdown, to increase the R&I spend that is key to delivering on the Minister's ambition for increased productivity for NI.

Option 6	Year 1 (AY 25-26)	Year 2 (AY 26-27)	Year 3 (AY 27-28)
<b>PGA Scheme</b>	£12.7m	£6.3m	£ 0
<b>QR/HEIF</b>	£56.7m	£63.1m	£69.4m
<b>Total R&amp;I</b>	£69.4m	£69.4m	£69.4m

### Pros

- **NI universities would be funded at a level closer to parity with peers in Britain in relation to QR & HEIF. Could expect increased leverage of external R&I funding amounting to c.£29m p.a. by year 3, increasing NI R&I spend and contributing to delivering on the Minister's ambition for increased productivity for NI.**
- **Would bring Department into line with approach taken by other UK National HE Funding Bodies – (i.e. no ringfencing of recurrent research funding provided to universities for PhDs). Also similar to approach in south of Ireland where PhD stipends are typically awarded through competitive funding agencies such as Irish Research Council and Science Foundation Ireland (c.30%), funded directly by the universities (c.20%) or self-funded (c.40%)<sup>31</sup>.**
- **Mitigates risk of poor VFM of research funding. The purpose of QR/HEIF is to enable the financial sustainability of research within universities by supporting research capacity and capability and to allow them to compete effectively for external research funding streams.**
- **Universities would have flexibility to allocate appropriate portion of non-directive recurrent research funding to PhD studentships, according to their strategic R&I priorities.**
- **Could tie additional QR allocation to some form of target on increasing external research funding drawdown, thus increasing NI R&I spend and contributing to delivery of the Minister's ambition for increased productivity for NI.**

### Cons

- Potential reduction in PhD studentships, (depending on extent to which universities opt to support PhDs via block grant R&I funding). This could reduce access to PhD places in view of current absence of PhD loan facility for students in NI.

31 [National Review of State Supports for PhD Researchers 2023.](#)

- Not popular with university research representatives in light of concerns about potential reduction in number of PhD graduates to meet needs of R&I ecosystem in future.
- Risk that the Department could be open to criticism for reducing support provided to the highest skilled graduates.
- These potential options for change are being considered with a view to informing the development of a robust economic appraisal to underpin the PGA Scheme going forward.
- The overarching goal, from a Departmental perspective, is to ensure the most effective use of the R&I funding provided to NI universities to meet the current and future R&I and skills needs of key stakeholders within the NI economy (including students, academia, businesses, industry and the wider community), in support of the Minister's strategic and policy objectives.
- Your views are welcomed on the options for the PGA Scheme, set out above.
- We would particularly welcome any additional evidence you wish to provide, or direct us to, in support of any of the options for change.

### Consultation Questions

Q5	<p><b>Which is your preferred option for the future of the PGA Scheme?</b></p> <ul style="list-style-type: none"> <li>• <b>Option 1 – Business as usual.</b></li> <li>• <b>Option 2 – Business as usual optimised</b> to enhance Scheme impact.</li> <li>• <b>Option 3 – Increase Scheme funding to support 1000 PhDs p.a.</b></li> <li>• <b>Option 4 – Reduce Scheme funding by 50%</b> and seek to reallocate 50% of funding as annual block grant R&amp;I funding.</li> <li>• <b>Option 5 – Reduce Scheme funding by 80%</b> (funding university/industry collaborative (CAST) PhD awards only) and seek to reallocate remaining funding as annual block grant R&amp;I funding.</li> <li>• <b>Option 6 – Close Scheme</b> and reallocate all funding as annual block grant R&amp;I funding.</li> </ul>
Q6	<p><b>Do you have any views on the potential to provide different stipend levels for PhD studentships across different disciplines or subject areas?</b></p>

## Section 4 – Proposed changes to PGA Scheme T&Cs

- 4.1 In addition to consulting on the various options for the model and scale of the PGA Scheme going forward, this consultation also seeks views on proposed changes to the [existing terms and conditions](#).
- 4.2 These proposed changes to the T&Cs are being considered with a view to enhancing the experience of PGA Scheme students, aligning the Scheme more closely to the Minister’s economic priorities (most particularly in relation to providing and supporting the delivery of good jobs), reducing bureaucracy for the universities administering the Scheme, and widening the eligibility and accessibility criteria of the Scheme to attract and secure the best talent.
- 4.3 These proposed changes only apply to options 1 to 5 and are described below.

## Residency and Nationality

### Existing PGA Scheme T&Cs

Irish nationals are eligible to participate in the DfE funded PGA Scheme but, where they have been resident in the south of Ireland for the 3 years prior to the start of the course, they are only eligible to receive fee support, and are not eligible to receive a stipend. The same is true for a UK national who has been resident in the south of Ireland (or wider EEA) for this same period.

The current DfE PGA Scheme T&Cs state (see page 4, Section A, note v):

*“ROI nationals MAY receive a studentship covering fees only if the candidate doesn’t have three full years’ residency in the UK and Islands but has been ordinarily resident in the area comprising the UK, Gibraltar, EEA and Switzerland for three years before the start of the course.”*

The T&Cs also state (see Section B, para 1a):

*“Under the Common Travel Area arrangements, ROI nationals who have been ordinarily resident in the UK and Islands or the area comprising the UK, Gibraltar, EEA and Switzerland for the three years prior to the start of the course may be eligible for fee and maintenance support or fee support respectively.”*

### Proposed Change

**To amend the PGA Scheme T&Cs so that Irish Nationals (previously resident in the south of Ireland), can access a full award i.e. both fees and stipend.**

**The proposed change will contribute to meeting the Minister’s ambition of encouraging and supporting the mobility of students within the island of Ireland and will align eligibility requirements under the PGA Scheme with those of UKRI Research Council PhD Schemes, streamlining the administration processes, reducing unnecessary bureaucracy across the research landscape and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.**



## International Student quota

### Existing PGA Scheme T&Cs

The current DfE PGA Scheme T&Cs state (see Section B, para 1e):

*Note: To attract world class candidates, up to 15% of fee and maintenance awards will be made available for “Non-Home” candidates for specific PhD projects or Masters courses (where the above-mentioned nationality and residency criteria do not apply).*

### Proposed Change

**To raise the cap on international students to 30%.**

**While the proposed change may impact on the number of PhD studentships awarded to home students, it will enable NI universities to avail of the most talented candidates from a wider pool of applicants and will align eligibility requirements under the PGA Scheme with those of UKRI Research Council PhD Schemes, streamlining the administration processes, and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.**

**[A New Deal for Postgraduate Research: Response to the Call for Input](#) recognises the value of international students. As with home students, international students are internationally mobile and may choose to work in another country after qualification. This can still benefit NI, by supporting the international networks between research teams that are often key to good research. For many, NI may also become their long-term home and they will contribute directly to research here.**

## Existing PGA Scheme T&Cs

Postgraduate Awards are offered on a full-time basis only. The current DfE PGA Scheme T&Cs state (see Section A):

*“The following types of **full-time** Studentship are available:*

*RESEARCH (PhD) STUDENTSHIPS provide for the payments of approved fees and the maintenance of students whilst being trained in methods of PhD research.*

*CAST (PhD) STUDENTSHIPS (Co-operative Awards in Science and Technology) provide for the payments of approved fees and the maintenance of students on Research Studentships intended to encourage the development of collaboration between universities and industry and, in particular, to provide an opportunity for graduates to undertake PhD research of direct interest to industry.*

*TAUGHT (MRes) STUDENTSHIPS provide for the payment of approved fees and the maintenance of students undertaking approved postgraduate MRes courses of instruction. If available, studentships will be advertised by the University.”*

The student may apply for part-time study during their studentship, but only in exceptional circumstances. While this is not specifically stated in the current T&Cs, page 17, para 22g states:

*“Consideration on a case-by-case basis will be given to making reasonable adjustments to support students’ progress. Students can apply to the relevant University Authority for reasonable adjustments to be made to support their progress. Applications may be directed to the Department for the Economy for further consideration.”*

Research Studentships are normally for a maximum period of three years, see page 19, para 26a, which states:

*“Research Studentships are normally for a maximum period of three years subject to annual renewal on the satisfactory recommendation of the student’s Supervisor.”*

## Mode and Duration of Studentship

### Proposed Changes

To offer both part-time (a minimum of 50% of full-time equivalent) and full time studentships.

The proposed change is intended to encourage and support potential PhD students who may benefit from part-time provision, such as those with disabilities or caring responsibilities.

The change may increase the total number of studentships awarded but decrease the number of completed PhDs each year. Due to the extended period of study to accommodate part-time studies, there is a greater risk that new research or research developments will emerge which will need to be incorporated into the research.

- Make provision for students to request permanent changes to their working arrangements, including working compressed hours, from home and flexitime.

The proposed change is intended to encourage and support PhD students who wish to combine their research training with work or personal circumstances. While there may be an increased risk to successful PhD completion rates if universities and students underestimate the impact of such arrangements on the student's ability to complete the PhD, the change will also align provision under the PGA Scheme with that of UKRI Research Council PhD Schemes, streamlining the administration processes, reducing unnecessary bureaucracy across the research landscape and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.

- No change to duration of full-time studentships (i.e. maximum of three years).

While it is understood that PhD students do not always complete their PhD within the 3-year time frame, and 4-year PhDs are supported by some funders in Britain and the south of Ireland, a change to the duration of PhDs under the PGA Scheme is not being proposed at this time. Such a change would result in an overall reduction in the number of PhDs funded and would be likely to further delay the point of employment of PhD graduates, and the associated contribution to the NI economy. Due to the extended period of study to accommodate four-year studentships, there would be a greater risk that new research or research developments emerging which would need to be incorporated into the research.

## Paid work

### Existing PGA Scheme T&Cs

As the current T&Cs do not facilitate part-time studentships (as mentioned above), the current T&Cs state in respect of full-time students (page 16, para 21(iii)):

*“Part time work during normal working hours is expected to be the exception rather than the norm and should not exceed 6 hours or up to one day in any one week.”*

### Proposed Change

**To make provision to allow part-time students to undertake part-time employment. There is no proposed change to the current T&Cs in respect of paid work for full-time students.**

**The ability of students to combine part-time research studies with part-time employment may make part-time study more attractive to people with a range of individual circumstances, including those with financial or caring responsibilities.**

**The change will align provision under the PGA Scheme with that of UKRI Research Council PhD Schemes, streamlining the administration processes, reducing unnecessary bureaucracy across the research landscape and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.**

## Enhanced Leave provision

### Existing PGA Scheme T&Cs

There is currently no specific provision in the DfE PGA Scheme T&Cs for time off for emergencies and/or compassionate leave either paid or unpaid. There is also no specific provision for bereavement leave.

### Proposed Change

**To introduce an entitlement for bereaved parents for two weeks paid leave in the event of the death of a child under 18 years of age.**

**To introduce a leave entitlement for other emergencies (number of paid days being dependent on individual circumstances but not usually more than 5 days).**

**These proposed changes to leave entitlement will provide more support for students during their course of study.**

**While there may be a risk that, making leave duration dependent on individual circumstances may mean that provision for time off for emergencies or compassionate leave, is not applied consistently, the risk is considered to be manageable and the change will align provision under the PGA Scheme with that of UKRI Research Council PhD Schemes, streamlining the administration processes, reducing unnecessary bureaucracy across the research landscape and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.**

## Maternity Leave – Keeping in Touch (KiT) days

### Existing PGA Scheme T&Cs

There is currently no provision in the DfE PGA Scheme T&Cs for ‘Keeping in Touch’ (KiT) days.

### Proposed Change

**To make provision for Keeping in Touch (KiT) days for students, e.g. to participate in activities related to their research project during their maternity leave.**

**This change will enable women returning from maternity leave to settle back into their studies gradually following their maternity leave. The change will also align provision under the PGA Scheme with that of UKRI Research Council PhD Schemes, streamlining the administration processes, reducing unnecessary bureaucracy across the research landscape and ensuring that PhD students studying at NI universities receive equitable T&Cs irrespective of funding provider.**

## Consultation Question

**Q7**

**Do you agree with the proposed changes to the existing PGA Scheme Terms and Conditions?**

## APPENDIX A – COPY OF CONSULTATION RESPONSE FORM

Name:

Contact email address:

### Which category best describes you?

Individual:

Prospective postgraduate (PhD) student:

Current postgraduate (PhD) student:

Former postgraduate (PhD) student:

Higher education employee:

Employer:

Representing an organisation (please specify):

Other (please specify):

### Q1: Do you agree that the Department for the Economy should ring-fence R&I funding provided to NI universities for funding PhD awards?

Yes

Not necessarily

No

**Please give more detail on the reason for your answer**

**Q2: If funding for the PGA Scheme was increased, either by securing an increase in allocated R&I funding or by increasing the proportion of the annual R&I block grant ringfenced for PhDs, what impact do you think this would have?**

**Q3: If ringfenced support for the PGA Scheme was reduced, what impact do you think this would have?**

**Q4: If funding (currently ringfenced for the PGA Scheme) was redirected and allocated as QR/HEIF what impact do you think this would have?**

**Q5: Which is your preferred option for the future of the PGA Scheme?**

- **Option 1 – Business as usual.**
- **Option 2 – Business as usual optimised** to enhance Scheme impact.
- **Option 3 – Increase Scheme funding to support 1000 PhDs p.a.**
- **Option 4 – Reduce Scheme funding by 50%** and seek to reallocate 50% of funding as annual block grant R&I funding.
- **Option 5 – Reduce Scheme funding by 80%** (funding university/industry collaborative (CAST) PhD awards only) and seek to reallocate remaining funding as annual block grant R&I funding.
- **Option 6 – Close Scheme** and reallocate all funding as annual block grant R&I funding.



**Please give more detail on the reason for your answer**

**Q6: Do you have any views on the potential to provide different stipend levels for PhD studentships across different disciplines or subject areas?**

**Q7: Do you agree with the proposed changes to the existing PGA Scheme Terms and Conditions?**

**Please use this space to include any additional comments you may have.**

**Q8: Do you have any additional comments on any of the policy options considered in this consultation?**

**Please use this space to include any additional comments you may have.**

**Q9: Do you agree to be contacted via email by a member of the Department if further detail is needed to better understand your survey response?**

Yes

No