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# Global Entrepreneurship Monitor

Northern Ireland Report 2021

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# Acknowledgements

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## Disclaimer

This report is based on data collected by the GEM consortium and the GEM UK team; responsibility for analysis and interpretation of the data is the sole responsibility of the authors.

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# GEM Report 2020-21

## Foreword by Andrew Harrison, Ulster Bank Managing Director of Business Banking

The Global Entrepreneurship Monitor (GEM) is the most influential global research into entrepreneurial activity and trends, so it's a privilege for Ulster Bank to sponsor for the first time, this unique report for Northern Ireland.

The findings of this report, against a challenging backdrop of the pandemic and the cost-of-living crisis, once again confirm that the UK is a nation of entrepreneurs, with around 1 in 3 adults now either running a business or looking at starting one. The number of individuals in the early stages of setting up a new business is at the highest level since the report was first published in 1999 and is a clear indicator of the entrepreneurial resilience of the UK.

The research also shows that many entrepreneurs revived start-up plans that had been shelved in 2020 when many aspects of society were shut down for long periods. The resilience of small businesses over recent years is both inspiring and important.

That remarkable resilience has partly been driven by women, with more female-led businesses than ever before launched in 2021. It is no longer the case that 'women are half as likely as men to start their own business' as shown in the previous GEM report.

As the economy faces significant turbulence in the year ahead, it is critical that the UK has a thriving ecosystem to support this boom in entrepreneurship, which is central to economic stability and growth.

However, as the cost-of-living crisis grows and continues to affect UK business we need to continue to ensure that the small businesses forming the backbone of the UK economy receive the support they need to handle these unprecedented challenges.

At Ulster Bank our purpose is to champion the potential of people, families and businesses. As the UK's biggest bank for business, we are determined to play our part in helping those businesses to continue to start, scale and thrive.



# Main Findings

The Global Entrepreneurship Monitor (GEM) is an international project which seeks to provide information on the entrepreneurial landscape of 50 countries in 2021. This is essential as many studies have shown that entrepreneurship is an important driver of economic growth, competitiveness and job creation.

The results of the GEM data analysis are used as key entrepreneurial benchmarking indicators by regional and national authorities around the world. The sample size in Northern Ireland in 2021 was 1,019 adults over 18 years of age.

- Levels of entrepreneurial activity are a vital sign of any economy as it has been shown that the creation of new ventures is positively connected to the drivers of economic growth and productivity through increased innovation, competition and job creation.
- Northern Ireland has historically lagged behind the rest of the UK in terms of enterprise start-up activity and the GEM Global project tracks this through its unique annual survey which focuses on the measurement of new business formation at the level of the individual.
- The rate of total early-stage entrepreneurship (TEA) in Northern Ireland in 2021 is 9.1%, a strong rebound from being hit hard by the pandemic to the level of only 5.4% in 2020. However, it is still significantly lower than a figure of 11.5% in the UK overall or 11.8% in England, and also slightly lower than that of 10.3% in Wales and 9.5% in Scotland.
- Pooling the data over the most recent three years (2019-21), to remove annual fluctuations, gives a TEA rate of 7% for Northern Ireland. This rate, along with that in Scotland and Wales (8% and 7.9%, respectively) is significantly lower than the rate of 10% in England and 9.6% in the UK.
- The female TEA rate in Northern Ireland in 2021 is 7.2%, continuing its increasing trend (it was 4.5% in 2020, and 3.1% back in 2019). The male rate also rebounds from 6.2% in 2020 to 11% in 2021, a bit higher than its value of 10.1% back in 2019. As a result, the gap between TEA rates for females and males in Northern Ireland has widened again, after being the smallest among the UK nations in 2020.
- TEA rates tend to vary by age with those aged over 30 generally more likely to be engaged in entrepreneurial activity. However, probably due to the Covid-19 pandemic, the most entrepreneurial group in Northern Ireland, Wales, and Scotland in 2020 was the 18-24 age group. In 2021, this trend reverses back in Northern Ireland, with Northern Ireland and England the only two UK nations where those aged between 25-34 are the most entrepreneurial. On the other hand, the 18-24 age group remains the most entrepreneurial in Wales and Scotland.
- Within Northern Ireland, the highest TEA rates are typically found in the Mid-Ulster Council area, while Derry City and Strabane remain the lowest.
- With regards to gender differences, on average female TEA rates over the 2019-21 period are around two fifths the male TEA rates although the ratios vary from 24.3% in Newry, Mourne and Down to over 100% in Belfast. In fact, Belfast is the only council with higher female TEA rate than that for males. On the other hand, Antrim and Newtownabbey, Fermanagh and Omagh, and Mid and East Antrim are the three council areas in which the female TEA rate is significantly lower than the male TEA rate.
- Nearly half of the non-entrepreneurial working age population perceive good start-up opportunities locally in both Northern Ireland and the UK in 2021. This figure indicates a marked increase from less than one third back in 2020 in both regions.
- The proportion of non-entrepreneurial working age adults in Northern Ireland who expect to start a business within the next three years is 20.1% in 2021, a further increase from 19.5% in 2020. For the UK, this figure also increased from 16.2% in 2020 to 18.2% in 2021, slightly narrowing the gap although still lower than the rate in Northern Ireland.
- 2021 also saw a slight decline in fear of failure, with the proportion of non-entrepreneurial individuals of working age in Northern Ireland who agreed there were good start-up opportunities but who report they are afraid of starting a business in case it might fail, falling from 61.4% in 2020 to 56.5%.

- In 2021, more than one-fifth of Northern Ireland early-stage business owners expect to achieve high growth, a considerable increase from 17% in 2020, while this figure remains stable at around 18-19% in the UK over the most recent years.
- Motivation to start a business can be varied and more multi-faceted than the previous opportunity and necessity measures reveal. As a result, GEM also measures motivation to start a business across four main categories, they are: to make a difference in the world; to build great wealth or a very high income; to continue a family tradition; or to earn a living because jobs are scarce.
- In 2021, probably due to the continuing effect of Covid-19 pandemic, “to earn a living because jobs are scarce” remained to be a major motivation for entrepreneurs in Northern Ireland, even though it has slightly decreased from 79.3% in 2020 to 64.1%. In contrast, this figure remained stable around 66% for the UK. Still, more than half of early-stage entrepreneurs in both Northern Ireland and the UK were motivated by making a difference, building wealth and to earn a living in 2021. Starting a business to continue a family tradition is the least motivating factor, and is significantly lower than all other reasons.
- More than three fifths of established business-owners and entrepreneurial employees agreed with the idea that the pandemic had provided new plausible opportunities. This suggests that after over a year of the pandemic, established business-owners seemed to be more resilient and readier to not only cope with the difficulties but also take any opportunity the pandemic has brought to their industries.
- More than half of individuals in Northern Ireland claimed that there has not been any substantial change in their household income due to the Covid-19 pandemic. This positive note might be attributable to the effectiveness of several of the government’s supporting schemes such as furlough.
- Results from the National Experts Survey, which captures the state of the entrepreneurial ecosystem, indicates that of the 13 Entrepreneurial Framework Conditions, just two in NI are in a sufficient state to support entrepreneurial activity - **physical infrastructure** and **government entrepreneurship programmes**.
- On the contrary, four Entrepreneurial Framework Conditions - sufficiency of financing for entrepreneurs, easiness of access to financing for entrepreneurs, entrepreneurial education at school age, and cultural and social norms – are considered insufficient and need significant improvement. Furthermore, experts agree that support to women entrepreneurs is insufficient in NI, although it is also deemed insufficient in the comparator nations of the UK, Scotland and Ireland.

# 1. Background

The Global Entrepreneurship Monitor (GEM) research consortium is an international project which tracks rates of entrepreneurship. It is the world's most authoritative comparative study of entrepreneurial activity in the general adult population and is based on the following premises. First, an economy's prosperity is highly dependent on a dynamic entrepreneurship sector. Second, an economy's entrepreneurial capacity is composed of individuals from all groups in society with the ability and motivation to start businesses, and requires positive societal perceptions about entrepreneurship. Third, high-growth entrepreneurship is a key contributor to new employment in an economy, and national competitiveness depends on innovative and cross-border entrepreneurial ventures.

The results from the GEM data analysis are used as key benchmarking indicators by regional and national authorities around the world. They also enable comparisons to be made with the other regions of the UK and other countries participating in GEM. Overall, GEM's unique ability to provide information on the entrepreneurial landscape of countries in a global context makes the data a necessary resource for any serious attempt to study and track entrepreneurial behaviour.

It is important that we better understand the determinants of early-stage entrepreneurship because there is evidence to suggest a connection between higher rates of entrepreneurship and overall economic prosperity, particularly in innovation-driven economies like Northern Ireland.

In 2021 the Department for the Economy and Invest NI sponsored the Northern Ireland component of the GEM UK research project. Stimulating entrepreneurship remains an important challenge for the region; Invest NI has committed significant resources over the years in ensuring that it is embedded within their core activities. Of the 361,700 respondents to GEM UK surveys for the period 2002-2021, around 43,500 respondents were from Northern Ireland. The region now has a large longitudinal database on entrepreneurial attitudes, activity and aspirations. This is particularly useful in conducting trend analysis for important sub-populations in Northern Ireland, such as females and young people, and enables comparisons to the other UK home nations.

## 2. How GEM Measures Entrepreneurial Activity

The Global Entrepreneurship Monitor (GEM) research consortium has been measuring the entrepreneurial activity of working age adults across a wide range of countries in a comparable way since 1998. In 2021, GEM Global conducted surveys in 50 sovereign nations and represented the world's most authoritative comparative study of entrepreneurial activity in the general adult population. In previous years, a telephone survey of a random sample of the adult population was conducted each year between May and September (the only difference was GEM 2020 which was conducted in Q4 of 2020 due to the effect of the Covid-19 pandemic).

In addition, in a major departure in 2020 an online mode for respondents to complete was introduced, and this was provided alongside the traditional mode of CATI surveys. Using both approaches helped to ensure that the UK sample of approximately 10,000 respondents was maintained, providing data for the home nations as well as other important sub-groups of the population such as immigrants, ethnic minorities and women. The methodology, sample sizes and weighting systems used for the GEM UK 2021 adult population survey are explained in more detail in the GEM UK 2021 report.

GEM's primary focus is on the study of three areas:

- To measure differences in the level of entrepreneurial activity between countries.
- To uncover factors leading to appropriate levels of entrepreneurship.
- To suggest policies that may enhance the national level of entrepreneurial activity.

The 2021 the GEM Global study was based on an analysis of adult population survey (APS) results from 50 economies which together represent around 68% of global Gross Domestic Product (GDP) and 45% of the

world's population<sup>1</sup>. The core of the APS is identical in each country and asks respondents about their *attitudes* towards entrepreneurship; whether they are involved in some form of entrepreneurial activity, and if so, about their *aspirations* for their business. The global GEM Executive 2021/22 Report was published in February 2022<sup>2</sup> and can be downloaded from [GEM website](#).

From the APS survey, we examine individual entrepreneurs at three key stages:

- **Nascent entrepreneurs (NAE):** The stage at which individuals begin to commit resources, such as time or money, to starting a business. To qualify as a nascent entrepreneur, the business must not have been paying wages for more than three months.
- **New business owner-managers (NBO):** Those whose business has been paying income, such as salaries or drawings, for more than three, but not more than forty-two, months.
- **Established business owner-managers (EBO):** Those whose business has been paying income, such as salaries or drawings, for more than forty-two months.

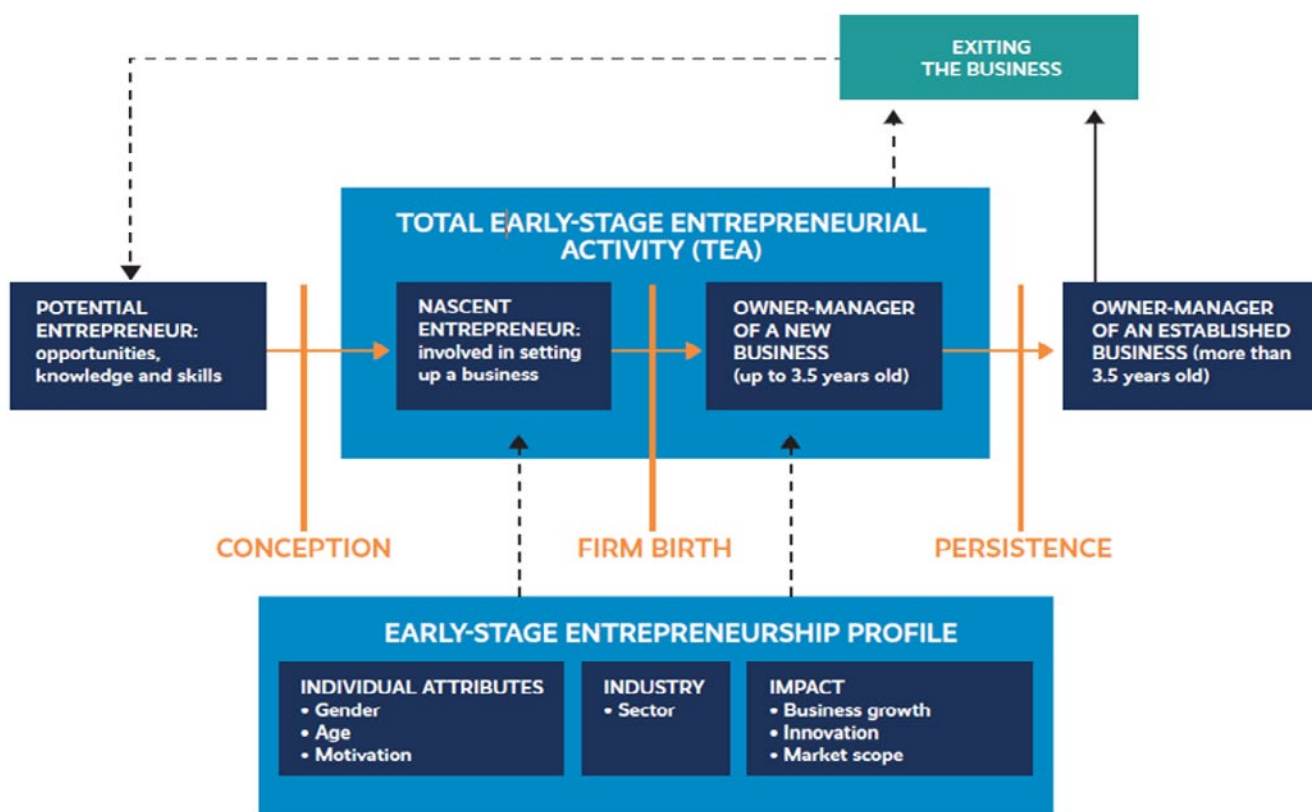
In addition, we measure general intention to start a business by asking individuals if they expect to start a business within the next three years. Finally, we ask individuals if they have sold, shut down, discontinued or quit a business in the past year. It is important to understand that the main subject of study in GEM is entrepreneurs rather than the businesses that they run. GEM measures the entrepreneurial activity of people from intention to exit. The first two stages of active business development, the nascent entrepreneur stage<sup>3</sup> and the new business owner-manager stage<sup>4</sup>, are combined into one index of Total early-stage

<sup>1</sup> Estimates based on World Bank data for GDP and populations.

<sup>2</sup> Hill, S., Ionescu-Somers, A.; Coduras, A.; Guerrero, M.; Roomi, M.; Bosma, N., Sahasranamam, S. and Shay, J. (2022) Global Entrepreneurship Monitor 2021/22 Global Report. London: Global Entrepreneurship Research Association.

<sup>3</sup> The active planning phase in which the entrepreneur has done something during the past 12 months to help start a new business, a new business that he/she will at least part own, and which has not paid wages or other income to the owners in the past 3 months.

<sup>4</sup> The second phase is defined as from 4 to 42 months after the new venture begins to provide income to the owners. Entrepreneurs who at least part own and manage a new business that has been paying some form of income to the owners for at least 4 and not more than 42 months are referred to as new firm entrepreneurs.



**Figure 2.1: The Entrepreneurial Process and GEM Operational Definitions**

(Source: Hill, S., Ionescu-Somers, A.; Coduras, A.; Guerrero, M.; Roomi, M; Bosma, N., Sahasranamam, S. and Shay, J., 2022, pg.26)

Entrepreneurial Activity, or TEA<sup>5</sup>, which is represented in Figure 2.1 below.

As much of this entrepreneurial activity is pre-start-up or includes very small new businesses that do not have to register, TEA rates will not necessarily match with published official statistics on business ownership and, indeed, should not be interpreted as such. Rather, GEM enables the measurement of the propensity of individuals in particular countries to be entrepreneurial given the current social, cultural and economic framework conditions that exist there. Another important change in the sample design was introduced in 2010 when 10% of respondents in each Government Office Region (GOR) were selected at random from households which had mobile phones but not fixed phone landlines. The proportion of mobile-

only households in this survey was designed to match Ofcom estimates of the proportion of adults in mobile-only households in 2020 for the UK, to account for the higher mobile phone use (around 20%) of some hard to reach individuals, such as young men. Once again in 2020 there are no significant differences between landline only data and the full sample which includes mobile only households. Consequently, in this report, comparisons with other countries and time-based trends within the UK are made using the full sample (landline and mobile only households as well as the CATI/Online mixed method).

The following report presents a summary of the headline results, and key themes arising from the GEM survey in 2021 and the analysis of the nineteen years of GEM data (2002-21).

<sup>5</sup> TEA is calculated in an identical way in each country. A telephone and/or face-to-face survey of a representative sample of the adult population in each country is conducted between May and September. Respondents are asked to respond to three questions that are the basis of the TEA index: 1) "are you, alone or with others, currently trying to start a new business independently of your work?", 2) "are you, alone or with others, currently trying to start a new business as part of your work?", and 3) "are you, alone or with others, currently the owner or manager of a business?" Those who respond positively to these questions are also asked filter questions to ensure they are actively engaged in business creation as owners and managers, how long they have been paying wages to employees, and other questions about cost and time to start up, sources of finance and numbers of jobs created. A distinction is made between two types of entrepreneurs: nascent entrepreneurs (those whose businesses have been paying wages for not more than three months) and new business owner-managers (those whose businesses have been paying salaries for more than three months but not more than 42 months). The TEA index is the proportion of nascent entrepreneurs and new business owner/managers (minus any double counting, i.e. those who respond positively to both are counted once) in the working age population.



### 3. Total Early-Stage Entrepreneurial Activity

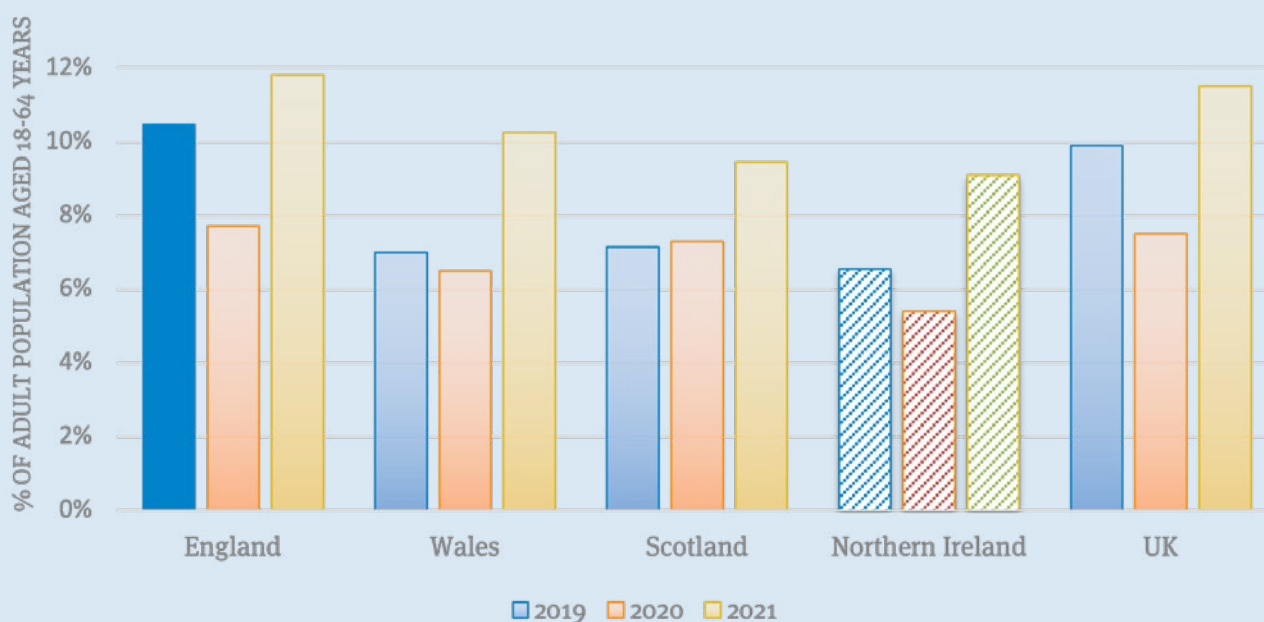
2021 saw a strong rebound from the TEA rate in all UK nations (Figure 3.1). Specifically, the rate of early-stage entrepreneurship in Northern Ireland in 2021 was 9.1%. Even though it is lower than the figure of 11.5% in the UK overall, 11.8% in England, 9.5% in Scotland and 10.3% in Wales, it is still a strong rebound from only 5.4% in 2020 under the effect of the Covid-19 pandemic. Similar to previous years, the TEA rates in England and the UK were statistically significantly higher than that in Northern Ireland in 2021.

Pooling the data over the most recent three years (2019-21), to remove annual fluctuations, gives a TEA rate of 7% for Northern Ireland. This rate, along with that in Scotland and Wales (8% and 7.9%, respectively) is significantly lower than the rate of 10% in England and 9.6% in the UK.

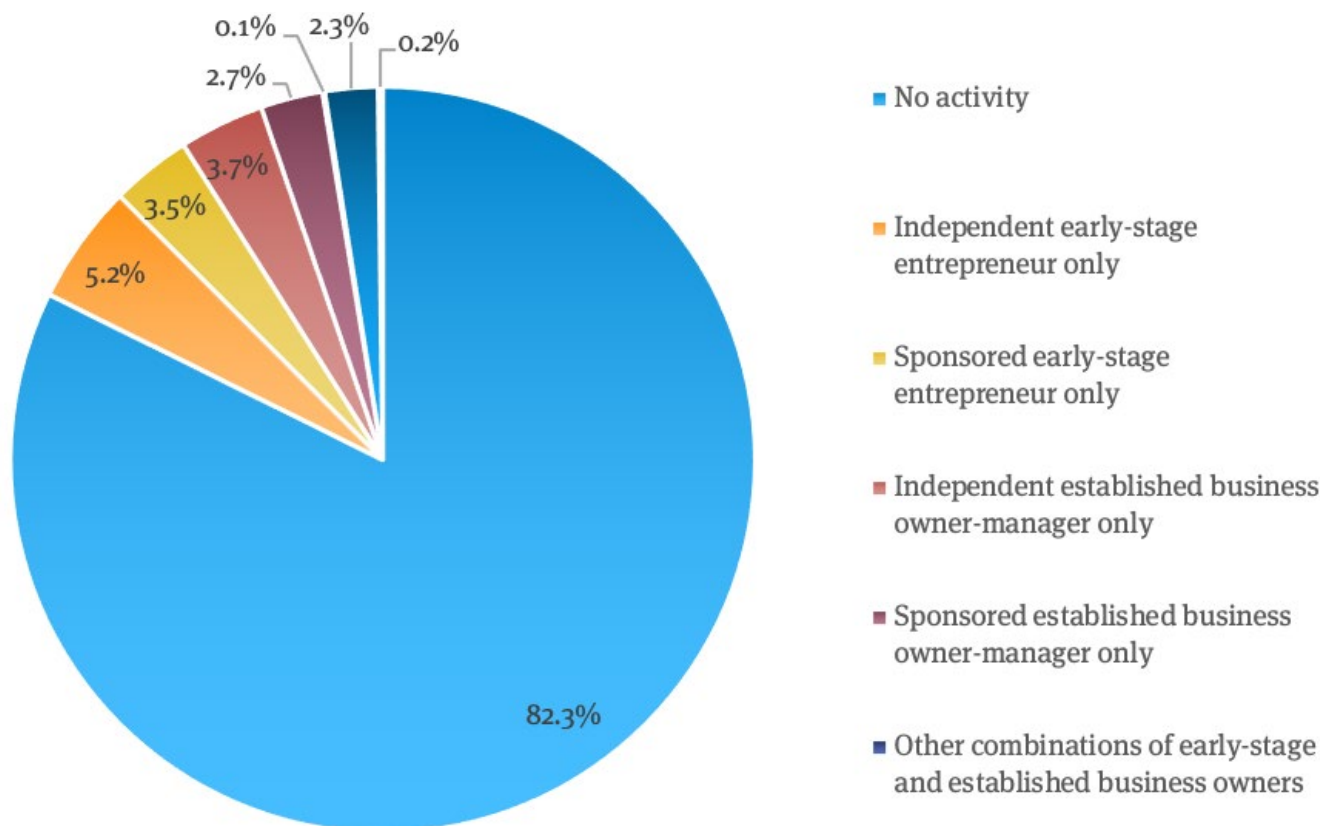
Overall, the TEA rate of 9.1% in Northern Ireland in 2021 equates to around one in every eleven adults aged 18-64, or over 103,200 individuals, engaged in early-stage entrepreneurial activity, around 65% of whom

were in the very early stages of starting a business (nascent entrepreneurs: 6.5%) and the remainder those who had a new business which was between 3 and 42 months old (2.8%).

Figure 3.2 further breaks down entrepreneurial activity into a more refined categorisation which includes entrepreneurial employees (intrapreneurs) and separates early-stage and established entrepreneurs into those who are independent, and those whose business is sponsored by their employer. The majority of active entrepreneurs are within three categories: the “Independent early-stage entrepreneur only” (5.2%); the “Independent established business owner-manager only” (3.7%); and the “Sponsored early-stage entrepreneur only” (3.5%). In particular, the “Independent early-stage entrepreneur only” category reports a considerable increase from 2.8% in 2020 to 5.2% in 2021. On the other hand, the “Active leading intrapreneur now only” category continues to fall to 2.3%, after its marked decline from 5.9% in 2019 to 2.5% in 2020. The highest fall in 2021 is reported for the



**Figure 3.1: Total early-stage Entrepreneurial Activity (TEA) in the UK Home Nations 2021**  
(Source: GEM APS)



**Figure 3.2: Modes of Entrepreneurial Activity in Early-stage and Established Businesses**

(Source: GEM APS 2021)

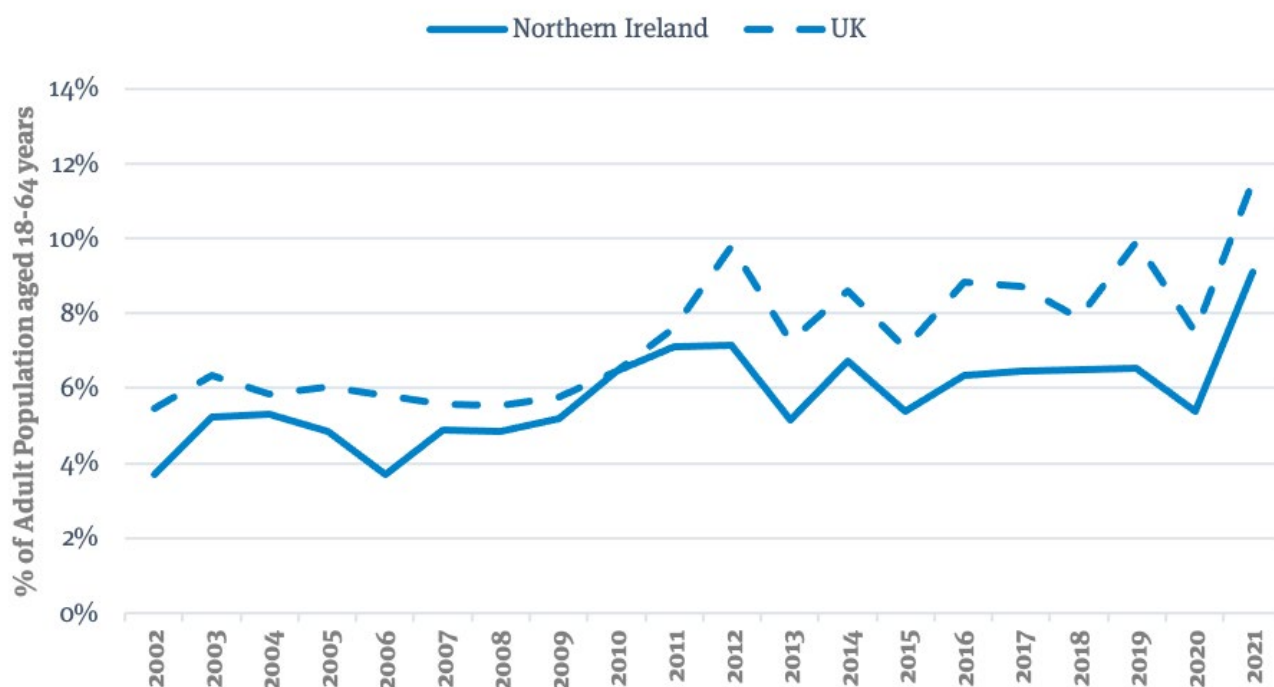
“Sponsored early-stage entrepreneur only” category, from 6.3% in 2020 to 3.5% in 2021.

Perhaps reasonably, the entrepreneurial activity in both the UK and Northern Ireland have increased again in 2021, a trend that was disrupted because of the effect of the Covid-19 pandemic in 2020 (Figure 3.3). However, despite the increases, the gap between the two persists.

Analysing annual TEA rates in Northern Ireland Council areas can be problematic due to small sample sizes in localised areas. Pooled analysis over periods of time helps remove this variability by averaging out random annual fluctuations. Figure 3.4 presents TEA rates over the entire 2003-2021 period. It indicates that over the entire period of observation the highest rate of entrepreneurial activity was in the Mid Ulster area with a TEA rate of 6.8% whilst the lowest was the Derry City and Strabane area with a rate of just 4.3%; the difference between the two is statistically significant. Belfast’s rate of 4.7% lies below the Northern Ireland

average (5.4%), the difference is also statistically significant. Belfast’s rate is also significantly lower than that for several areas, such as Mid and East Antrim; Fermanagh and Omagh; and Lisburn and Castlereagh.

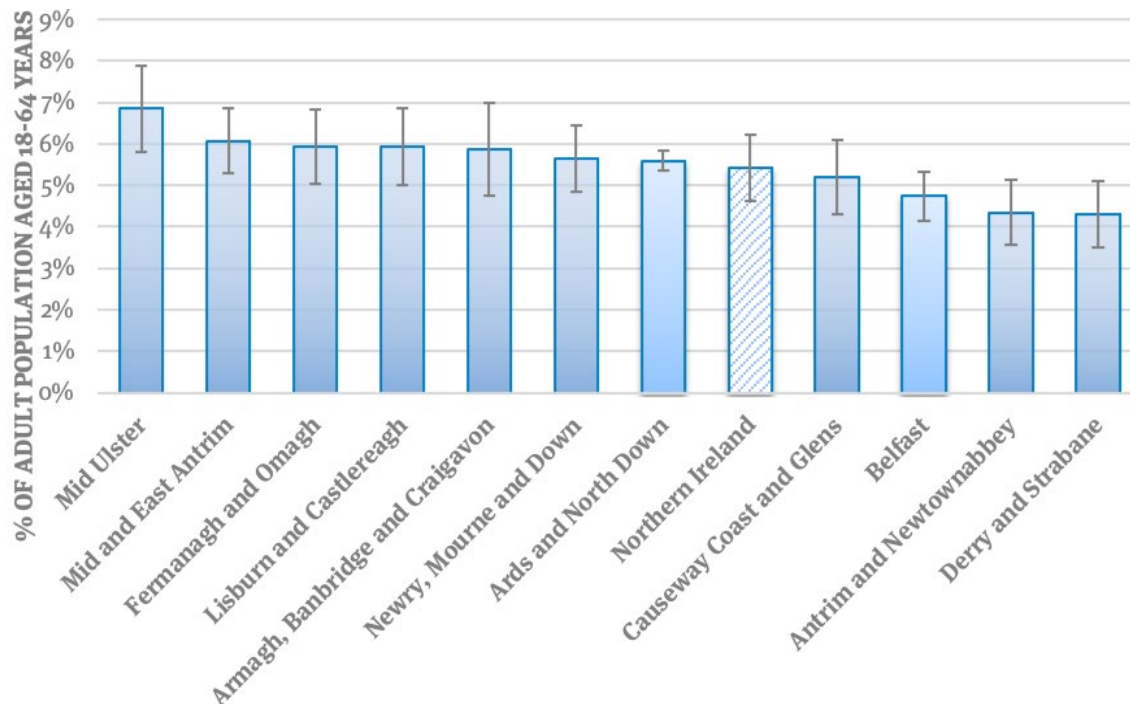
Table 3.1 displays the trend by Council area using 3 year rolling averages, rather than combined data, from 2002-04 to 2019-21. There was little variation in entrepreneurial activity rates across Council areas in the decade to 2010, with rates for some areas diverging thereafter. Recently, Mid and East Antrim has had the largest increase and continues to outpace all other areas. However, 2021 saw a marked increase in the rate of Ards and North Down, and this council has caught up with Mid and East Antrim in 2019-21 with an average rate of 9.3%. The overall Northern Ireland average rate of 2019-21 was 7%. In contrast, the most remarkable decrease can be seen for Newry, Mourne and Down, from 6% for the 2018-20 period to 3.9% for the 2019-21 period.



**Figure 3.3: Total early-stage Entrepreneurial Activity in Northern Ireland and the UK 2002-2021**  
(Source: GEM APS 2002-21)

	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09	2008-10	2009-11	2010-12	2011-13	2012-14	2013-15	2014-16	2015-17	2016-18	2017-19	2018-20	2019-21
Antrim and Newtownabbey	5.4%	3.9%	3.8%	3.2%	4.8%	5.1%	6.5%	6.1%	6.9%	5.4%	4.8%	4.2%	4.7%	5.3%	4.8%	6.3%	5.1%	5.7%
Ards and North Down	4.5%	4.6%	4.6%	4.7%	4.6%	6.1%	7.3%	7.0%	6.6%	5.4%	7.0%	5.6%	6.7%	5.4%	6.0%	5.5%	5.8%	9.3%
Armagh, Banbridge and Craigavon	4.4%	5.2%	4.2%	5.0%	4.6%	5.6%	6.6%	7.8%	11.0%	10.4%	9.4%	5.4%	4.5%	5.8%	7.7%	6.6%	5.3%	4.8%
Belfast City	3.6%	4.4%	3.8%	3.9%	4.2%	4.3%	4.4%	4.6%	4.7%	4.6%	4.5%	4.7%	5.3%	5.7%	5.5%	4.4%	4.5%	6.5%
Causeway Coast and Glens	3.7%	4.9%	3.9%	4.6%	3.9%	4.3%	3.9%	5.6%	6.4%	5.9%	5.9%	5.8%	6.4%	5.8%	5.1%	6.8%	8.0%	7.9%
Derry City and Strabane	5.7%	4.8%	4.3%	4.0%	3.0%	3.5%	2.9%	3.5%	4.5%	5.1%	6.1%	3.7%	4.2%	3.3%	6.8%	5.1%	5.3%	4.2%
Fermanagh and Omagh	4.5%	6.1%	5.7%	5.4%	4.9%	5.6%	4.9%	6.9%	4.5%	4.1%	2.4%	5.9%	7.6%	6.4%	4.0%	6.6%	8.0%	9.8%
Lisburn and Castlereagh	4.1%	5.8%	4.8%	5.4%	6.1%	6.3%	6.0%	7.0%	6.6%	5.8%	4.2%	5.8%	6.4%	6.0%	6.0%	7.1%	6.2%	7.5%
Mid Ulster	5.6%	6.6%	6.5%	4.5%	4.4%	4.6%	6.8%	7.8%	9.8%	9.1%	10.6%	9.6%	9.0%	9.3%	8.0%	8.2%	4.6%	8.7%
Mid and East Antrim	6.3%	5.2%	4.3%	4.9%	4.4%	5.1%	4.5%	5.9%	5.8%	6.6%	6.2%	8.0%	8.7%	10.5%	10.2%	10.6%	10.1%	9.3%
Newry, Mourne and Down	5.4%	5.4%	5.2%	4.4%	5.3%	4.9%	6.0%	6.7%	8.1%	7.3%	6.5%	7.1%	7.9%	6.7%	6.9%	6.5%	6.0%	3.9%
Northern Ireland	4.7%	5.1%	4.6%	4.5%	4.5%	5.0%	5.5%	6.3%	6.9%	6.5%	6.3%	5.8%	6.2%	6.1%	6.4%	6.5%	6.1%	7.0%

**Table 3.1: Total early-stage Entrepreneurial Activity in Northern Ireland by Council Area, rolling averages 2002-2004 to 2019-2021** (Source: GEM APS)



**Figure 3.4: Total early-stage Entrepreneurial Activity in Northern Ireland in 2003-2021 by Council Area, with 95% confidence intervals<sup>6</sup>** (Source: GEM APS 2003-21)

<sup>6</sup> Confidence intervals for a mean specify a range of values within which the unknown population mean may lie. At the 95% level we are 95% confident that the interval contains the true population mean.

Motivation to start a business can be varied and more multi-faceted than the previous opportunity and necessity measures revealed. As a result, since the 2019 a new and improved method of measuring motivation to start a business across four main categories was introduced. They are: (i) to make a difference in the world; (ii) to build great wealth or a very high income; (iii) to continue a family tradition; or (iv) to earn a living because jobs are scarce. The former two can be thought of as more opportunity driven, while the third is more complex as this could be both due to opportunity and necessity. The final option can be thought of as more necessity driven.

Probably due to the continuing effect of the Covid-19 pandemic, Figure 3.6 shows that “to earn a living because jobs are scarce” was still the major motivation for entrepreneurs in Northern Ireland in 2021, even though

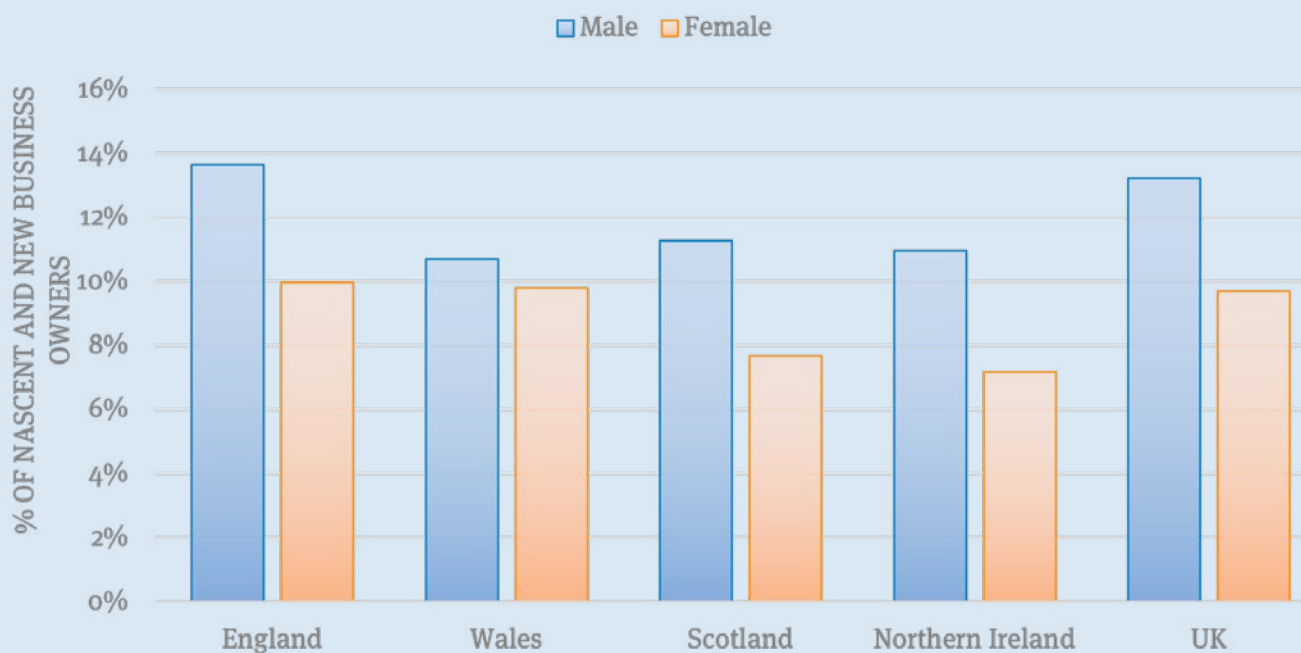
it has decreased slightly from 79.3% in 2020 to 64.1% in 2021. In contrast, this figure remains around 66% for the whole UK in 2021. Besides, and similar to 2020, more than half of early-stage entrepreneurs in both Northern Ireland and the UK were also motivated by making a difference, building wealth and to earn a living. Starting a business to continue a family tradition is the least motivating factor, and is significantly lower than all other reasons.



**Figure 3.6: Motivation for Early-stage Entrepreneurship in Northern Ireland and the UK 2021** (Source: GEM APS)



## 4. Who are the Entrepreneurs in Northern Ireland?



**Figure 4.1: Total early-stage Entrepreneurial Activity in the UK Home Nations in 2021** (Source: GEM APS)

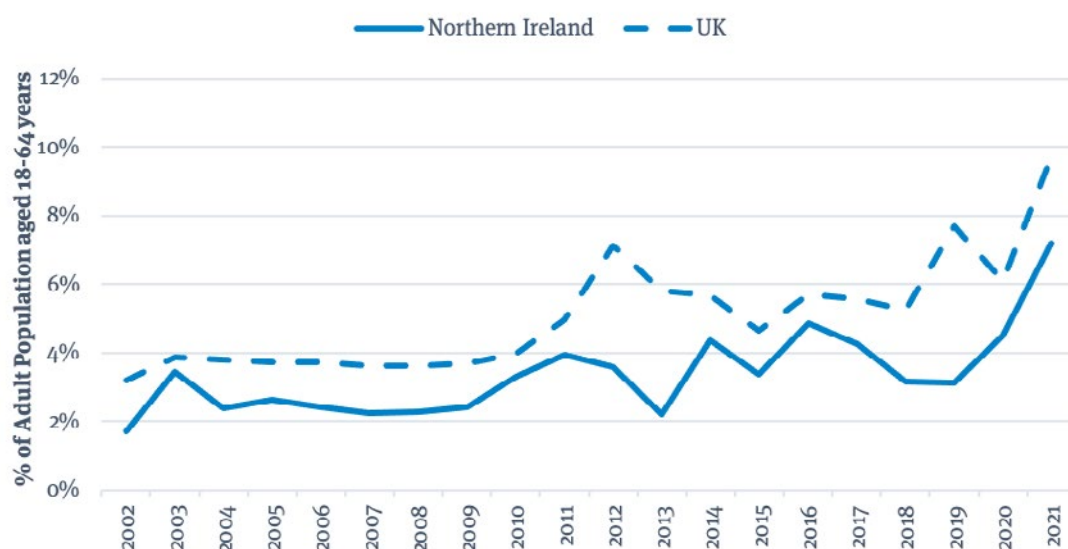
### 4.1 Gender

In 2021 males in the UK have a significantly higher TEA rate than females, at 13.2% compared to 9.7%. Significant differences in rates are also found in England, Scotland and Northern Ireland (Figure 4.1). Even though the TEA rate for females in Northern Ireland has continued its increasing trend recently (from 3.1% in 2019 to 4.5% in 2020 to 7.2% in 2021), the gap in TEA rate between males and females has actually widened in 2021, as the rate for males has bounced back even more aggressively (from 6.2% in 2020 to 11% in 2021). A similar increasing trend can be seen for the female TEA rate in Wales, which at 9.8% was just slightly lower than the highest female 10% figure in England.

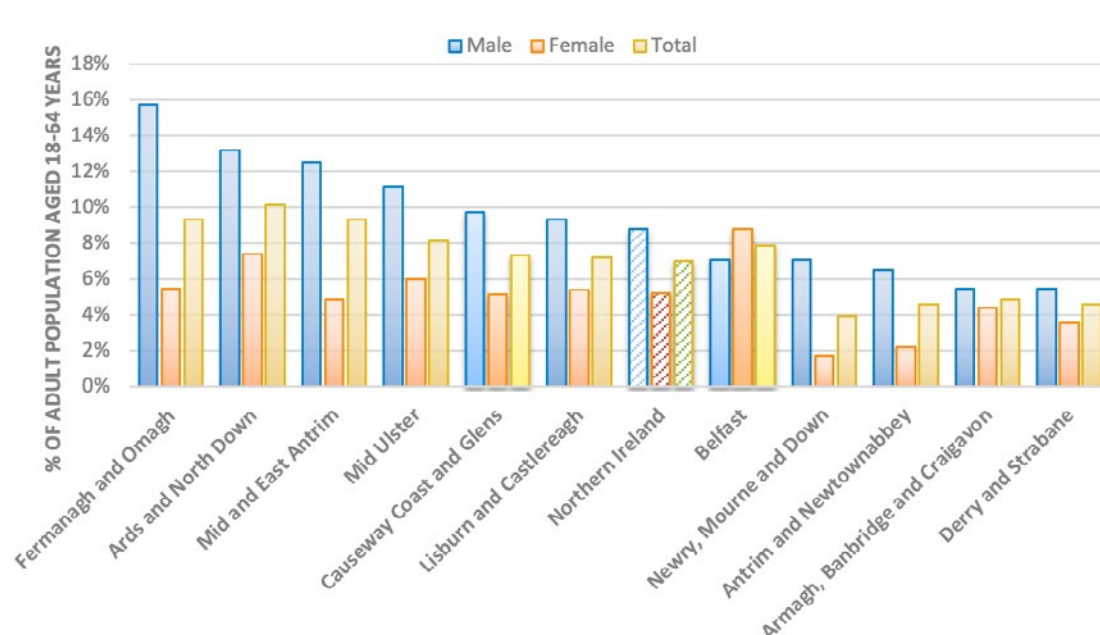
For the UK as a whole the TEA rate translates into a female to male early-stage entrepreneurship ratio of 73%, an increase from 69% in 2020. Wales remains the nation with the highest ratio (92%), and the nation with the lowest ratio is Northern Ireland at 65%, a decrease from its figure of 73% in 2020.

Annual ratios in female to male entrepreneurial activity can vary, for example, previous ratios for the UK have been around 50%, with twice as many male entrepreneurs as females. Using the long run average ratios from 2002-21, to get a longer perspective, suggests a ratio of 41.1% in Northern Ireland compared to 51.6% in England, 58.3% in Wales and 55.2% in Scotland. The significantly lower female to male ratio in Northern Ireland over the long term is due to historically lower female TEA rates compared to males. Northern Ireland's female TEA rate for the whole period 2002-21 has averaged around 3.3% compared to a male rate of 8.2%. In the UK the equivalents are 4.8% and 9.3% respectively.

Comparing female TEA rate in Northern Ireland to the UK over the long term shows a long-standing gap (Figure 4.2). This narrowed somewhat during the recession but diverged strongly as the economy recovered during 2011/12. This trend appeared again recently, as after narrowing in 2020 due to both a decline in UK rate and an increase in Northern Ireland, Figure 4.2 shows that the gap has slightly widened again in 2021.



**Figure 4.2: Total Early-stage Female Entrepreneurial Activity in Northern Ireland and the UK, 2002-2021**  
(Source: GEM APS)



**Figure 4.3: Total Early-stage Male and Female Entrepreneurial Activity in Northern Ireland by Council Area, combined over 2019-2021** (Source: GEM APS)

Figure 4.3 shows TEA rates for males and females by Council area over the 2019-21 period combined<sup>7</sup>. The male rates are plotted in descending order although there is no significant difference between them. There is also no correlation between the entrepreneurial activity rates of males and females, in that those areas with the highest male rates do not also have the highest female rates. This suggests differing opportunities for entrepreneurship by gender in each council area.

On average female TEA rates over the 2019-21 period are around two fifths the male TEA rates although the ratios vary from 24.3% in Newry, Mourne and Down to over 100% in Belfast. In fact, Belfast is the only council with higher female TEA rate than that for males. On the other hand, Antrim and Newtownabbey, Fermanagh and Omagh, and Mid and East Antrim are the three councils in which the female TEA rate is significantly lower than the male rate.

<sup>7</sup> Note that due to small sample sizes it was not possible to provide female estimates for Antrim and Newtownabbey or Fermanagh and Omagh.

## 4.2 Age

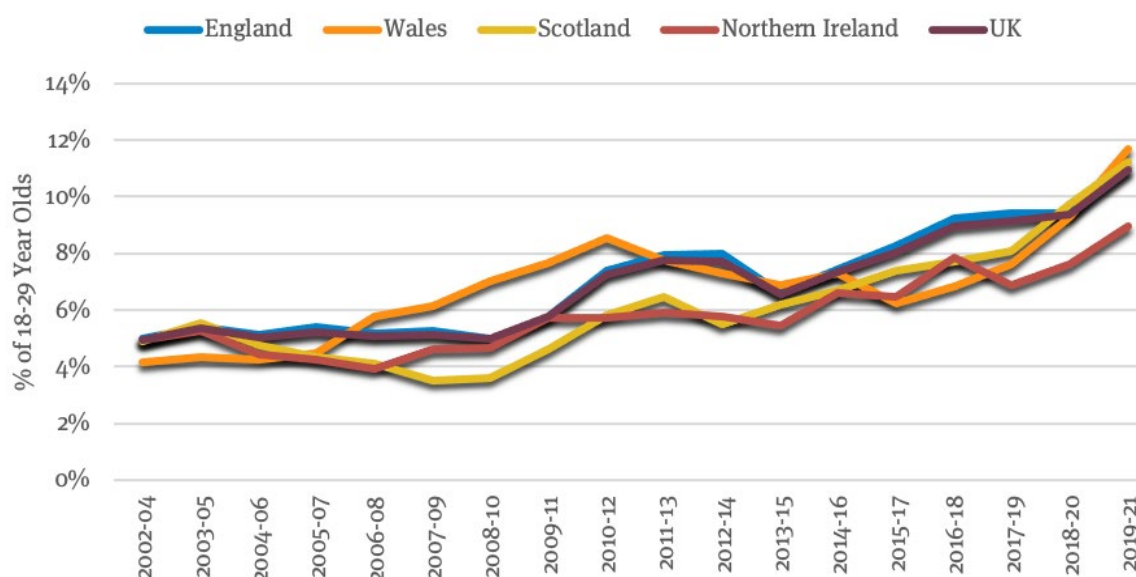
Figure 4.4 shows TEA rates by age combined in 2021. In the UK individuals aged between 25 and 34 typically have higher rates of early-stage entrepreneurial activity than other groups. In 2021, this pattern can be seen for England and Northern Ireland. However, in Wales and Scotland, the group with highest TEA rate in 2021 is the younger group (aged between 18 and 24), while in Northern Ireland, there is a slight decrease in TEA rate for this younger group from 11.2% in 2020 to 10% in 2021.

An alternative analysis by age is to assess how the TEA rate has changed in the 18 to 29 age group over time compared to the 30 to 64 age group. Figures 4.5 and 4.6 show that for both age groups, rates in England are driving the UK trends and it is diverging from the other home nations, particularly in the 30-64 age group.

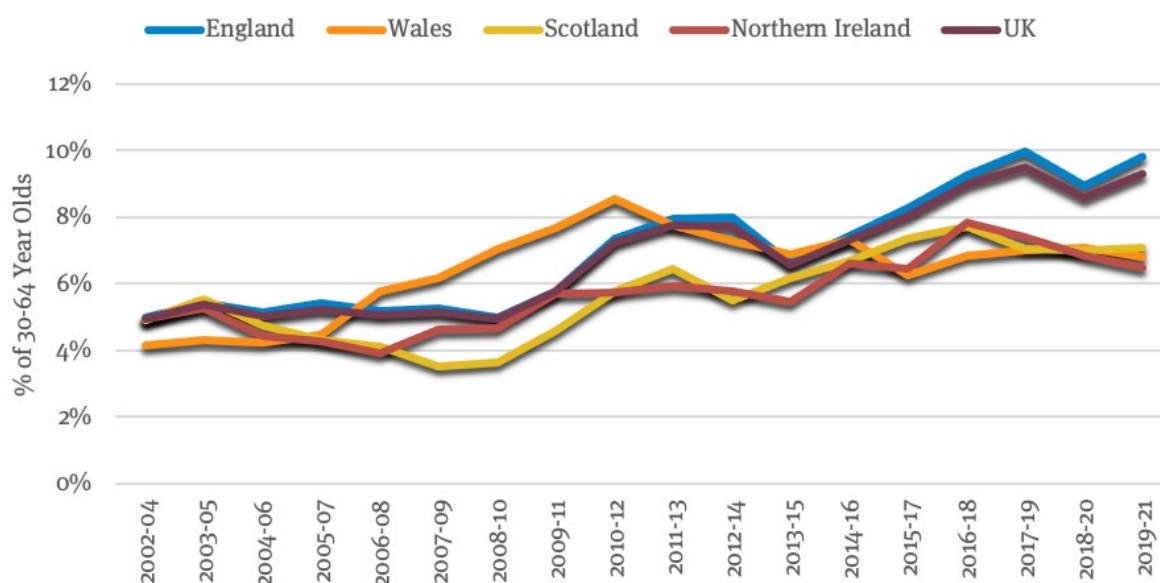
In Northern Ireland, despite the fact that TEA rates for both groups have increased over time, the rate for the 30-64 age group seemed to decline in the most recent years.



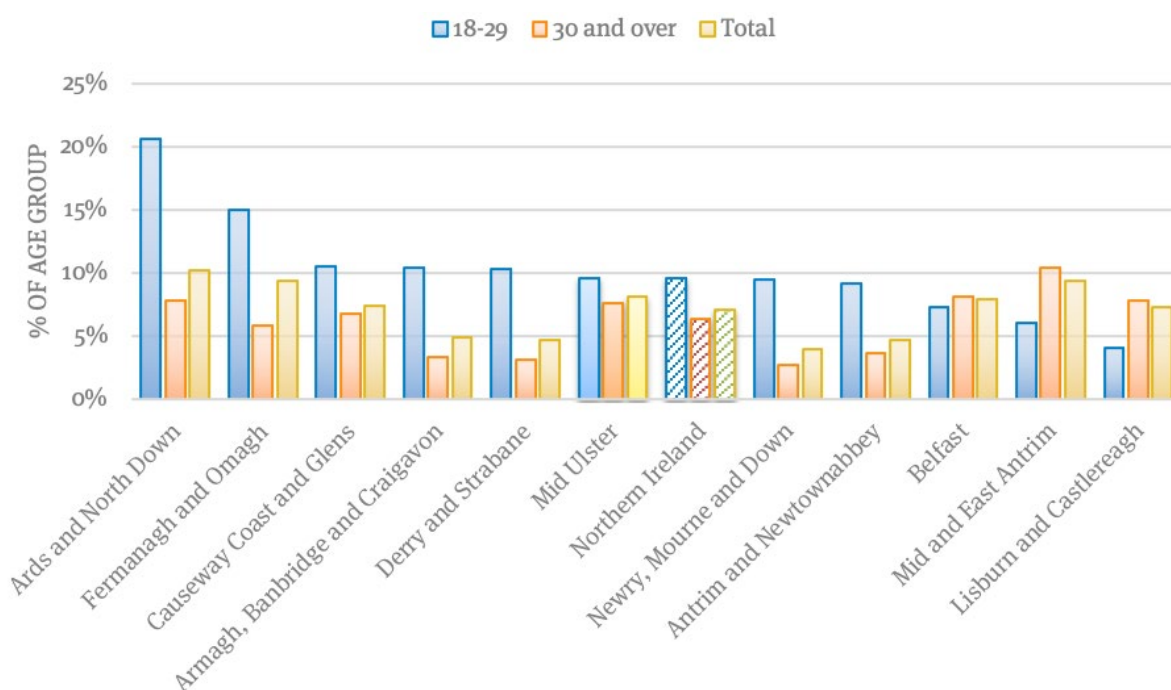
**Figure 4.4: Total early-stage Entrepreneurial Activity in the UK Home Nations 2021** (Source: GEM APS)



**Figure 4.5: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 18-29 year olds, rolling averages 2002-4 to 2019-21** (Source: GEM APS)



**Figure 4.6: Trend in Total early-stage Entrepreneurial Activity in the UK Home Nations for 30-64 year olds, rolling averages 2002-04 to 2019-21** (Source: GEM APS)

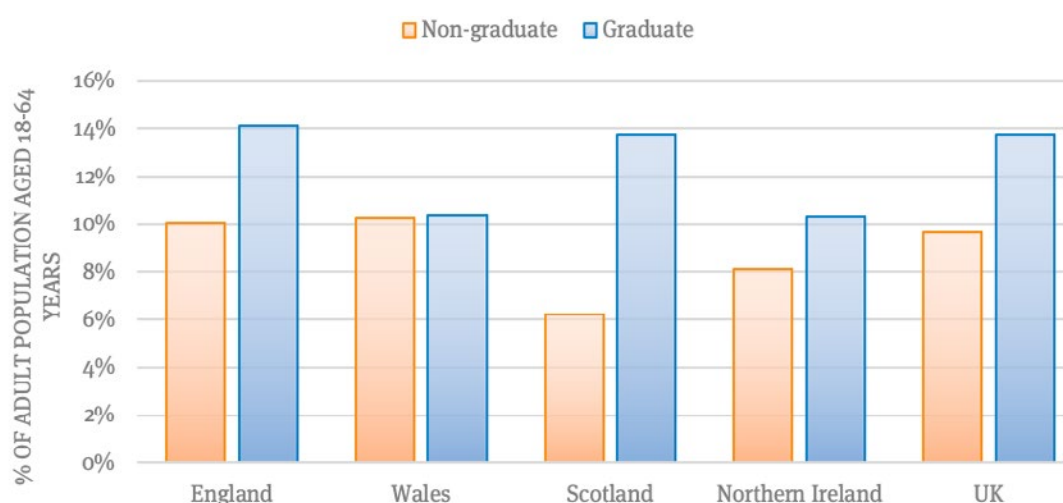


**Figure 4.7: Total early-stage Entrepreneurial Activity in Northern Ireland by Age and Council Area, combined over 2019-21** (Source: GEM APS)

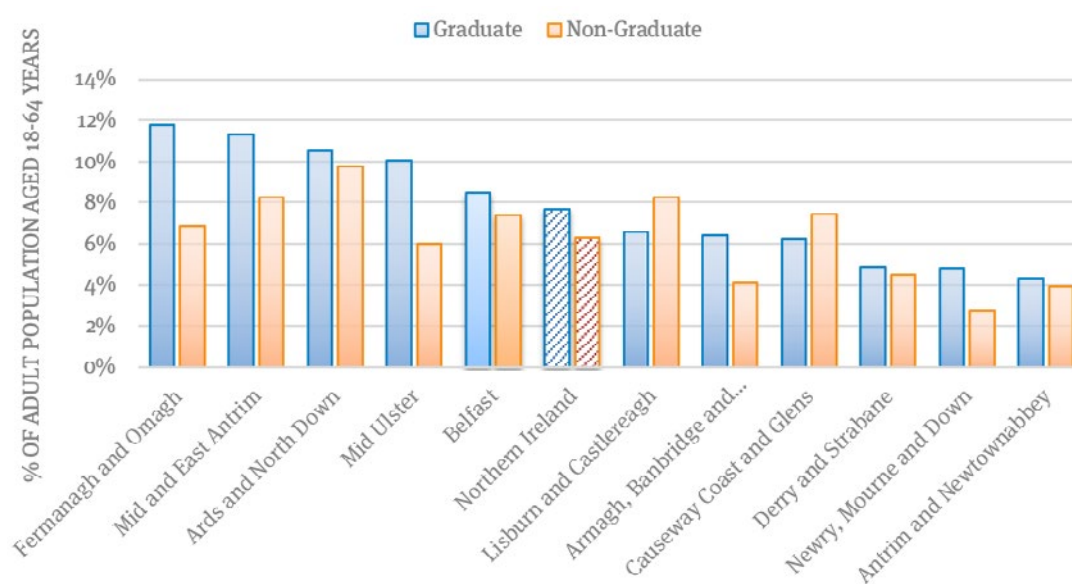
Total early-stage entrepreneurial activity by these broader age groups is plotted in Figure 4.7 for the Council areas, combined over 2019-21. For Northern Ireland as a whole, the TEA rate for the older group (aged 30 and over), at 6.3%, is around two thirds the

rate for 18-29 year olds, at 9.5%. Figure 4.7 plots the series in descending order for 18-29 year olds and despite the wide variation in the rates most of the differences are not significant. Likewise for the 30 years old and over group across council areas.





**Figure 4.8: Total early-stage Entrepreneurial Activity in the UK Home Nations by Graduate Status, 2021**  
(Source: GEM APS)

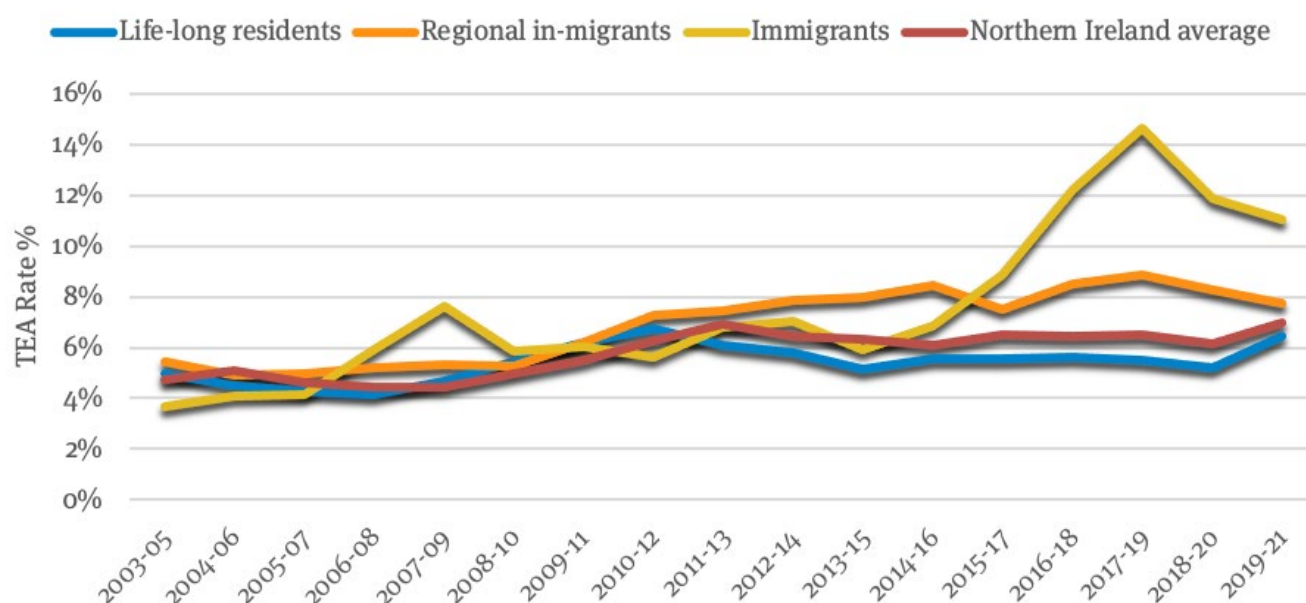


**Figure 4.9: Total early-stage Entrepreneurial Activity in Northern Ireland by Graduate Status and Council Area, combined over 2019-2021** (Source: GEM APS)

### 4.3 Education

The rate of total early-stage entrepreneurial activity for graduates in the UK in 2021 is 13.8% (Figure 4.8), significantly higher than for non-graduates (9.7%). Graduate TEA rates are also significantly higher than non-graduates in England and Scotland, while the differences are smaller and statistically insignificant in Wales and Northern Ireland. More specifically, the comparable rate for graduates currently residing in Northern Ireland is 10.3% and for non-graduates is 8.1%, both have increased considerably from the figures of 6% and 4.9% in 2020.

The graduate and non-graduate TEA rates by Council area, for the combined 2019-21 period, are shown in Figure 4.9. For Northern Ireland there was little difference in the rates, with an overall non-graduate TEA rate of 6.3% and a graduate TEA of 7.7%. Lisburn and Castlereagh and Causeway Coast and Glens are the only two councils with higher TEA rate for non-graduates than for graduates. However, there were no significant differences in TEA rates between graduates and non-graduates in the all district councils.



**Figure 4.10: Total early-stage Entrepreneurial Activity in Northern Ireland by Migrant Status, rolling averages 2003-2005 to 2019-2021** (Source: GEM APS)

## 4.4 Migrant Status

Figure 4.10 presents TEA rates for regional in-migrants<sup>8</sup>, immigrants and life-long residents in Northern Ireland, using 3 year rolling averages. As life-long residents comprise the majority of the population, the Northern Ireland average typically mirrors their trend. Overall, entrepreneurial activity in Northern Ireland peaked around 7% over 2010-12, and even though being relatively stable at just under 6% over several years, it has reached 7% again in the 2019-21 period.

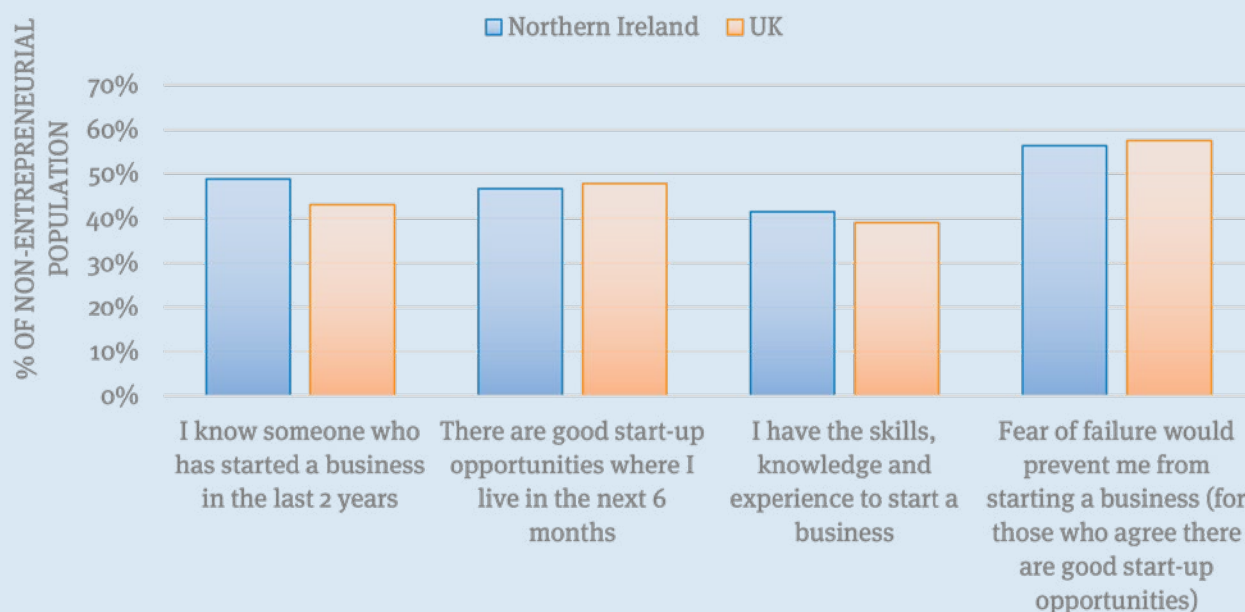
The TEA rate for in-migrants continued to rise post-2008 with the rate in 2017-19 peaking at almost 9%. This rate has slightly decreased to 7.7% for the 2019-21 period. The TEA rate for immigrants has seen the largest increase over the entire period, with a

particularly rapid rise from 2013-15 onwards. But probably due to the effect of the Covid-19 pandemic, this group has also reported a continuing decrease in its rate for the 2019-21 period, down to 11% compared to the peak of 14.6% for 2017-19 period. Despite this, it is still considerably higher than the rate for life-long residents for 2019-21 (6.5%). In the UK immigrants have also typically been found to be more entrepreneurial than the resident population, driven by opportunity rather than necessity motivations.

The sample sizes for the ethnic population in NI are too small to produce reliable estimates for entrepreneurial activity rates by ethnicity. However, combining the entire 2002-2021 results gives an average TEA rate of 5.3% for the white population and 8.5% for the non-white population. The difference between the two is statistically significant.

<sup>8</sup> Regional in-migrants are defined as those born in the UK but currently residing in a different Government Office Region to which they were born.

## 5. Entrepreneurial Attitudes and Intentions



**Figure 5.1: Entrepreneurial Attitudes and Perceptions in Northern Ireland and the UK 2021** (Source: GEM APS)

GEM has developed a number of attitudinal statements which provide a proxy for entrepreneurial potential in a country/region. They include knowing a person who has started a business in the last 2 years<sup>9</sup>, perception of good opportunities for start-up, self-belief in possessing the relevant skills to set up in business and the prevalence of fear of failure as a deterrent to setting up in business.

Individuals who are entrepreneurs may feel compelled to provide positive answers in the Adult Population Survey (APS). Hence, as in the last number of years, we report attitudinal data **only for that portion of the population who are not already entrepreneurs**.

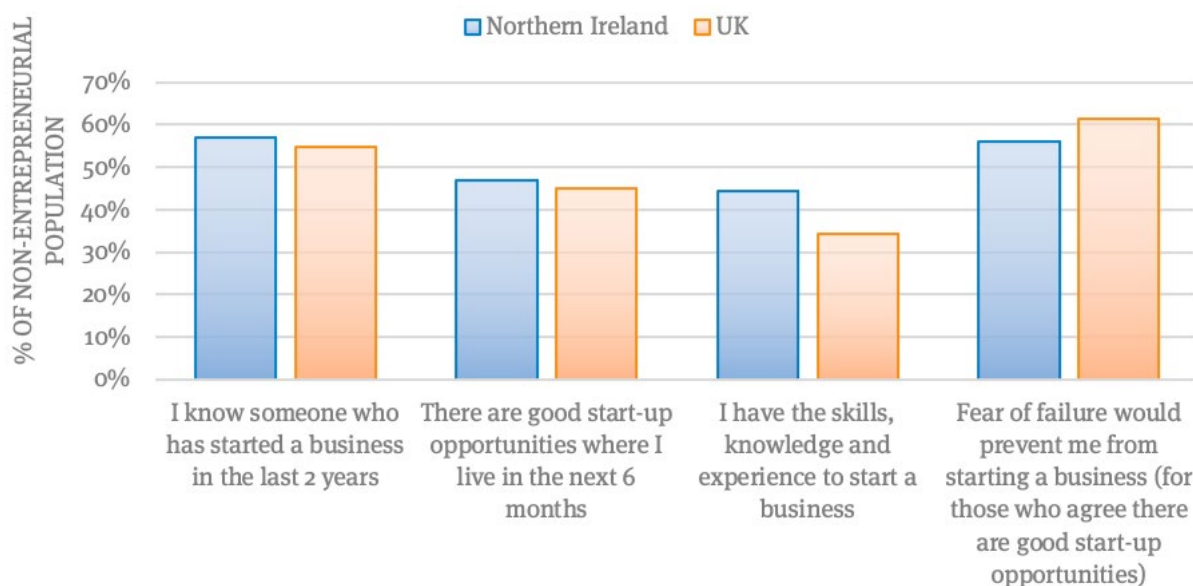
2021 saw a considerable raise in the perception of start-up opportunities, from 28.3% in 2020 to 46.7% in 2021 (with similar increasing trend, the figures were 32% in 2020 and 47.7% in 2021 in the UK). In addition to that, while in 2020 more than three fifths of individuals in Northern Ireland who recognised opportunities for start-up also stated their fear of failure would prevent them from doing so (61.4%), this rate has decreased slightly to 56.5% in 2021. This figure is not significantly

different from the rate for the UK in 2021 (57.6%). Besides, nearly half (48.8%) of individuals in Northern Ireland stated that they know an entrepreneur (Figure 5.1), this figure was significantly higher than the 43.1% share in the UK in 2021. Finally, around two fifths of the non-entrepreneurial population in both Northern Ireland and the UK felt they have the skills, knowledge and experience to start a business.

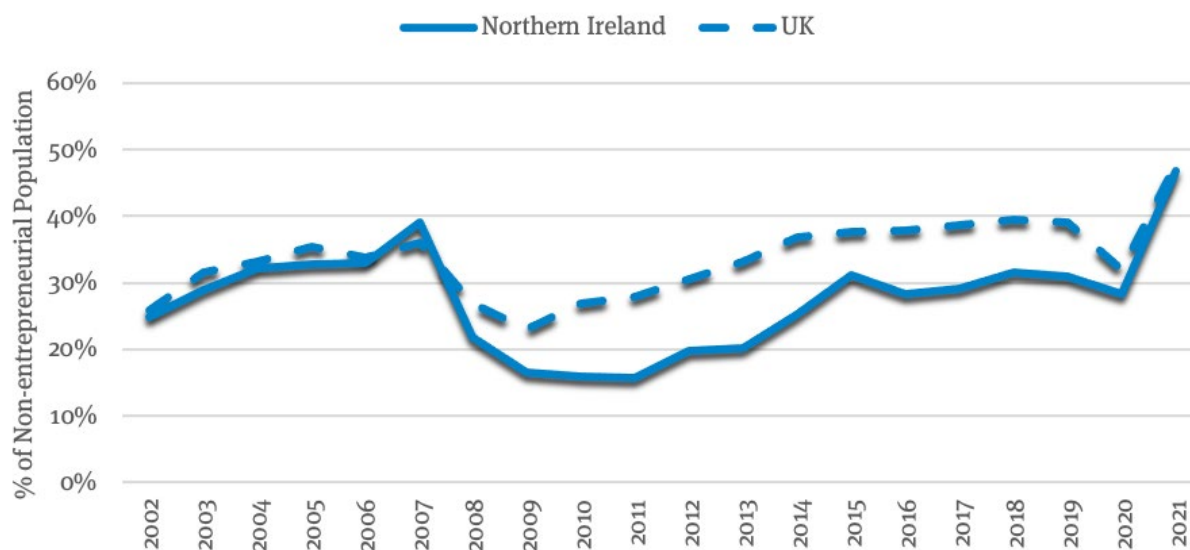
Figure 5.2 shows that all these characteristics of entrepreneurial potential are very much the same for the young aged between 18 and 24 in both Northern Ireland and the UK.

As identified above, 46.7% of the non-entrepreneurial working age population in Northern Ireland agreed that there were good opportunities for starting a business in their local area in the next six months compared to 47.7% in the UK (Figure 5.1). Prior to the financial recession 2007-2009, opportunity perception in Northern Ireland and the UK were similar however a significant difference has since opened-up between the two and continued to prevail until 2019. Nonetheless, the gap has been closed up again in 2021.

<sup>9</sup> Note that the wording of this question has changed in 2019 so rates are not comparable with previous years.



**Figure 5.2: Entrepreneurial Attitudes and Perceptions among 18-24 year olds in Northern Ireland and the UK 2021** (Source: GEM APS)



**Figure 5.3: Extent to which good start-up opportunities in the local area, over the next 6 months, are perceived in Northern Ireland and the UK, 2002-2021** (Source: GEM APS)

Besides, similar to 2020, 2021 saw that around three fifths of those who see good opportunities in their local area in the next 6 months in Northern Ireland state that fear of failure would prevent them from starting a business (56.5%), a small decrease from its peak of over 60% in 2020. Also, this is not significantly different from that for all other nations in the UK.

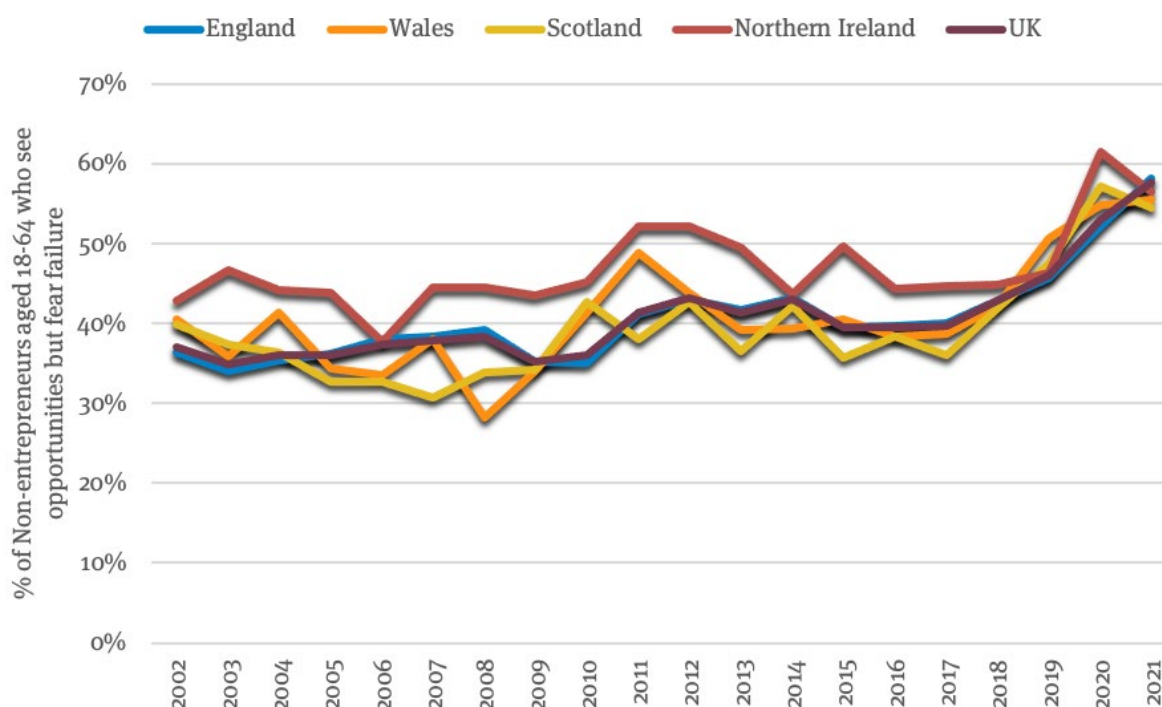
Looking to the future, the proportion of non-entrepreneurial working age adults in Northern Ireland in 2021 who expect to start a business within

the next three years is 20.1% (Figure 5.5). This is a promising figure, continuing its increasing trend after a remarkable increase from 8.3% in 2019 to 19.5% in 2020. However, taking into account the fact that start-up intention rates tends to increase during a recession but decline subsequently as the economy recovers (the trend which can also be detected in Figure 5.5), this result may reflect a reaction to the potential job losses anticipated to result from the pandemic which might have subsequently not materialised.

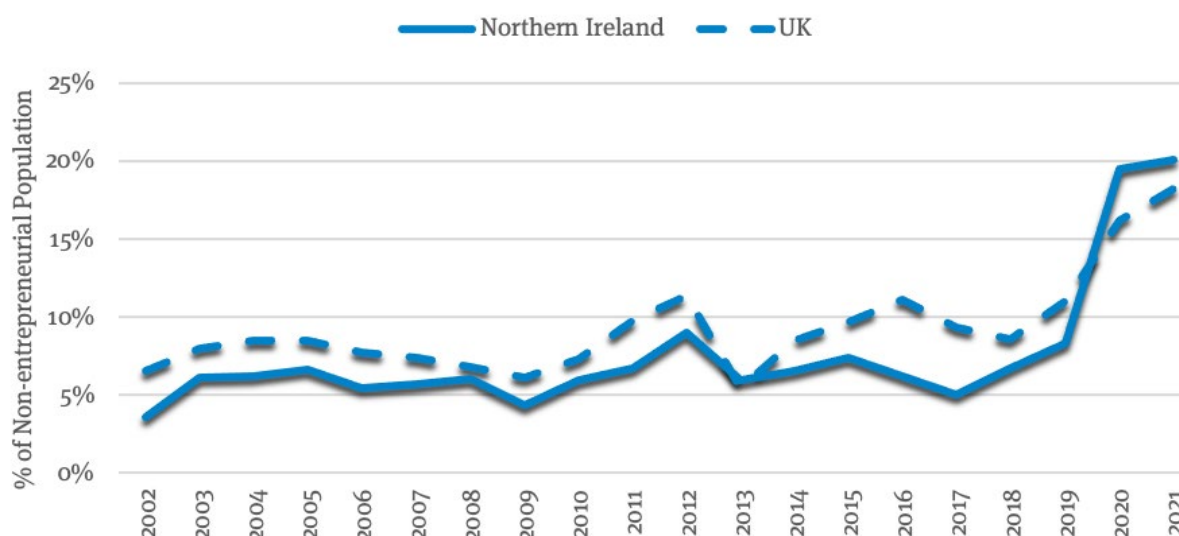


In 2021 males in the UK, England, Wales and Scotland are significantly more likely than females to report that they intend to start a business in the next three years. Northern Ireland is the only area to show no significant difference in the intention rates between males and females (Figure 5.6). In fact, the smallest gap between two genders in 2021 is recorded for Northern

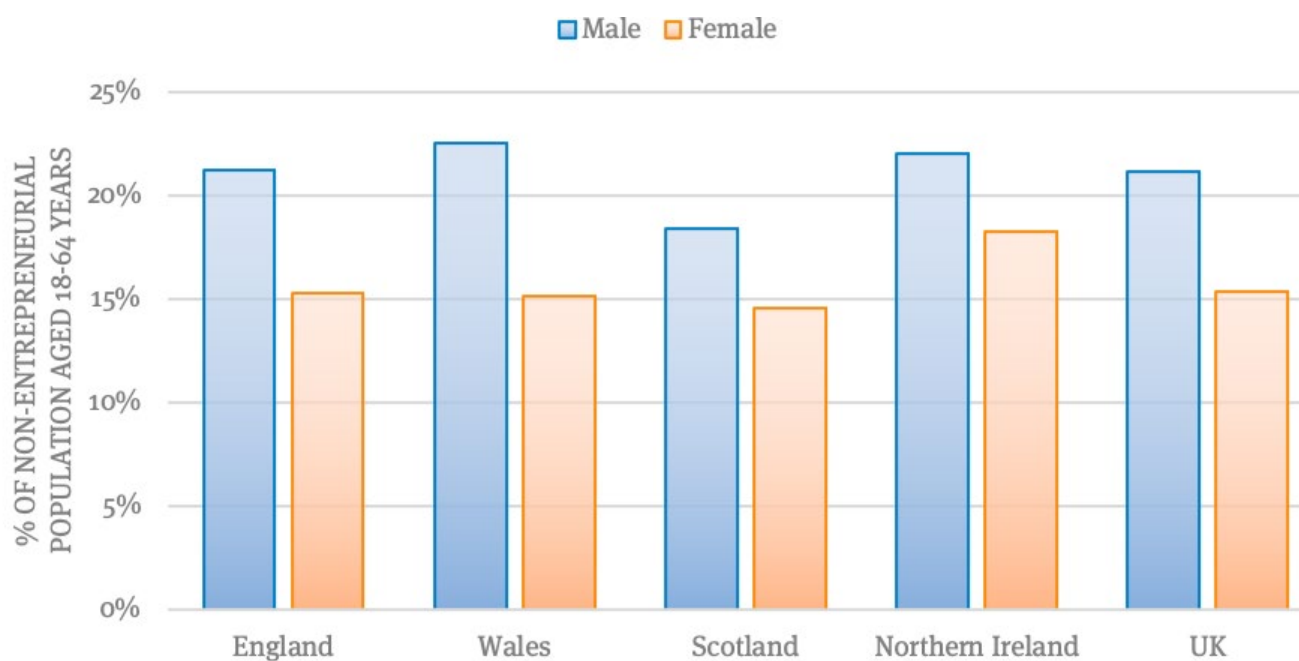
Ireland, where the rate for males and females are 22% and 18.2%, respectively. Translated into a female to male ratio, the figure for Northern Ireland equates to 83% compared to a UK average of 73%. In addition, Northern Ireland's 22% is also the second highest rate for males, only slightly lower than Wales at 22.5%.



**Figure 5.4: Fear of Failure among those who see Opportunities in the UK Home Nations, 2002-2021**  
(Source: GEM APS)



**Figure 5.5: Future Start-up Expectations (within 3 years) in Northern Ireland and the UK, 2002-2021**  
(Source: GEM APS)



**Figure 5.6: Future Start-up Expectations (within 3 years) in the UK Home Nations by Gender, 2021** (Source: GEM APS)

## 6. High Growth

Recent research has suggested that a relatively small number of firms can create a disproportionate number of jobs<sup>10</sup>. If an entrepreneur expects to create a large number of jobs then his or her potential contribution to growth and regeneration through entrepreneurship may be greater.

To identify such individuals GEM generates a variable which measures the percentage of all early-stage entrepreneurs (and separately established business owners) who expect to create more than ten jobs with a growth in employment of more than 50% in the next five years. Figure 6.1 displays the trend in these high growth expectation entrepreneurs for both Northern Ireland and the UK, using 3 year rolling averages. Previously, high growth expectation rates amongst TEA entrepreneurs in the UK were typically around three to four times higher than those for established business owners. However, recently, with a considerable increase in the rate for established business owners (from 7.5% for 2018-2020 period to 9.5% for 2019-2021 period), this ratio has decreased to approximately two times higher.

It can be seen from Figure 6.1 that in the UK, just one in five early-stage business owners expect to achieve high growth. With a recent increase to 21.3% for the 2019-2021 period, this rate now is higher in Northern Ireland than in the UK. Overall, high expectation rates in the UK have been broadly more consistent over time than for Northern Ireland, with rates dropping for Northern Ireland between 2015-18, albeit rebounding consistently over recent years.

The trend in high growth expectation for established business owners has also been less variable over time for the UK. Until 2006-08 the share reporting high job expectation averaged around 5% in both Northern Ireland and the UK. This subsequently dropped to around 2% in Northern Ireland, but has shown a considerable increase to its new peak of 6.8% for the 2019-2021 period.

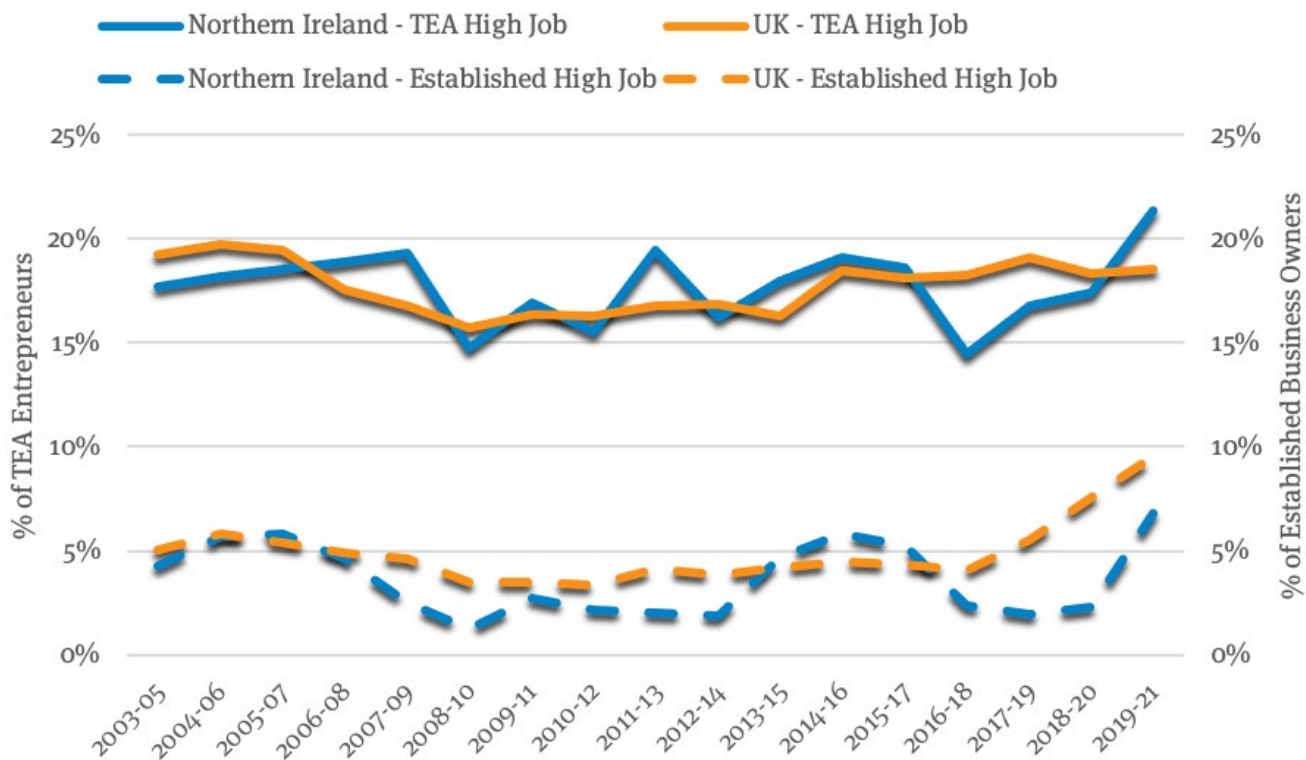
Along with high growth, GEM now also measures potential impact of businesses in the national and world markets. Table 6.1 shows that 1.5% of Northern Ireland early-stage entrepreneurs have a business with potential national impact, a slight increase from 1.2% in 2020. However, this figure is lower compared

to the UK share of 1.8%. The percentage of established business owner-managers whose businesses have potential national impact is also slightly lower in Northern Ireland at 1.2% compared to 1.3% for the whole UK. In terms of international impact, the shares are even smaller, although consistent between Northern Ireland and the UK, in that, early-stage business have marginally more international scope than established businesses.

	Early-Stage Businesses		Established Businesses	
	NI	UK	NI	UK
At least national scope for market and at least national scope for new product or new process	1.5%	1.8%	1.2%	1.3%
At least international scope for market and at least international scope for new product or new process	0.6%	0.6%	0.4%	0.5%

**Table 6.1: Measures of entrepreneurial potential impact rates in Northern Ireland and the UK, 2021**  
(Source: GEM UK APS 2021)

<sup>10</sup> Hart, M. and Anyadike-Danes, M. (2014) "Moving on from the vital 6%"; Enterprise Research Centre Insight Report, February



**Figure 6.1: Relative Frequency of High Job Expectation Early-stage Entrepreneurs and Established Business Owners in NI and the UK, three year rolling averages, 2003-2005 to 2019-2021** (Source: GEM APS)



## 7. Entrepreneurial framework conditions in Northern Ireland

To assess the context in which entrepreneurial activity takes place, GEM created a specific tool which assesses an economy's entrepreneurial ecosystem against *Entrepreneurship Framework Conditions* (EFCs). To create a quantifiable measure of EFCs, GEM seeks out expert views on the state of entrepreneurial ecosystem by carrying out the *National Expert Survey* (NES). At least 36 experts in each country are selected according to their knowledge and experience to participate in the NES each year. Historically there were nine EFCs but three (Government policy, Entrepreneurship education and Ease of entry) have subsequently been split into two subsets while in 2021 the NES introduced a new dimension related to the ease of accessing funds for entrepreneurship. This brings the overall number of constructs describing the national entrepreneurship context to thirteen, as shown in Figure 7.1<sup>11</sup>.

The state of these conditions directly influences the existence of entrepreneurial opportunities, entrepreneurial capacity and preferences, which in turn determines business dynamics. Hence, it is expected that different economies and regions have different structures and quality of EFCs that directly affect its entrepreneurial activity's inputs and outputs.

### **A1. Entrepreneurial Finance**

Are there sufficient funds for new startups?

### **A2. Ease of Access to Entrepreneurial Finance**

And are those funds easy to access?

### **B1. Government Policy: Support and Relevance**

Do they promote and support startups?

### **B2. Government Policy: Taxes and Bureaucracy**

Or are new businesses burdened?

### **C. Government Entrepreneurial Programs**

Are quality support programs available?

### **D1. Entrepreneurial Education at School**

Do schools introduce entrepreneurship ideas?

### **D2. Entrepreneurial Education Post-School**

Do colleges offer courses in starting a business?

### **E. Research and Development Transfers**

Can research be translated into new businesses?

### **F. Commercial and Professional Infrastructure**

Are these sufficient and affordable?

### **G1. Ease of Entry: Market Dynamics**

Are markets free, open and growing?

### **G2. Ease of Entry: Burdens and Regulation**

Do regulations encourage or restrict entry?

### **H. Physical Infrastructure**

Is this sufficient and affordable?

### **I. Social and Cultural Norms**

Does culture encourage and celebrate entrepreneurship?

### **Figure 7.1: Entrepreneurship Framework**

**Conditions (EFCs)** (Source: Hill, S., Ionescu-Somers, A.; Coduras, A.; Guerrero, M.; Roomi, M.; Bosma, N., Sahasranamam, S. and Shay, J., 2022, pg.86)

<sup>11</sup> Please refer to the UK GEM 2021 report for further detail on the NES methodology.

In 2021, as in 2020, the entrepreneurial environment was further influenced by the coronavirus pandemic and governments' responses to alleviate its impact. To take account of this the NES introduced additional questions in 2020 about these factors. This was further enhanced in 2021 with questions around digitalisation and teleworking; the rise of gig-economy and the prioritisation of environmental protection. Moreover, the NES 2021 introduced a new construct to assess support for women entrepreneurs (Figure 7.2).

**CV1. Progress and support of digitalization and teleworking**

Can firms afford the cost of digitalisation? Are firms promoting teleworking? Are there sufficient support for digitalisation?

**CV2. Rise of gig economy as a start-up driver and business model**

Is gig economy an important start-up driver? Are firms adopting gig-based models?

**CV3. Prioritisation of environmental protection**

Are firms prioritising environmental protection? Are governments accelerating green agenda?

**CV4. Government mitigation of decline of new firms**

Were government measures effective?

**P. Support for women entrepreneurs**

Are there sufficient support services for women entrepreneurs available? Does culture encourage women entrepreneurs? Are regulations favourable? Is access to financing equally granted?

**Figure 7.2: Special topics** (Source: Hill, S., Ionescu-Somers, A.; Coduras, A.; Guerrero, M.; Roomi, M; Bosma, N., Sahasranamam, S. and Shay, J., 2022)

## 7.1 Gender National entrepreneurship context index (NECI)

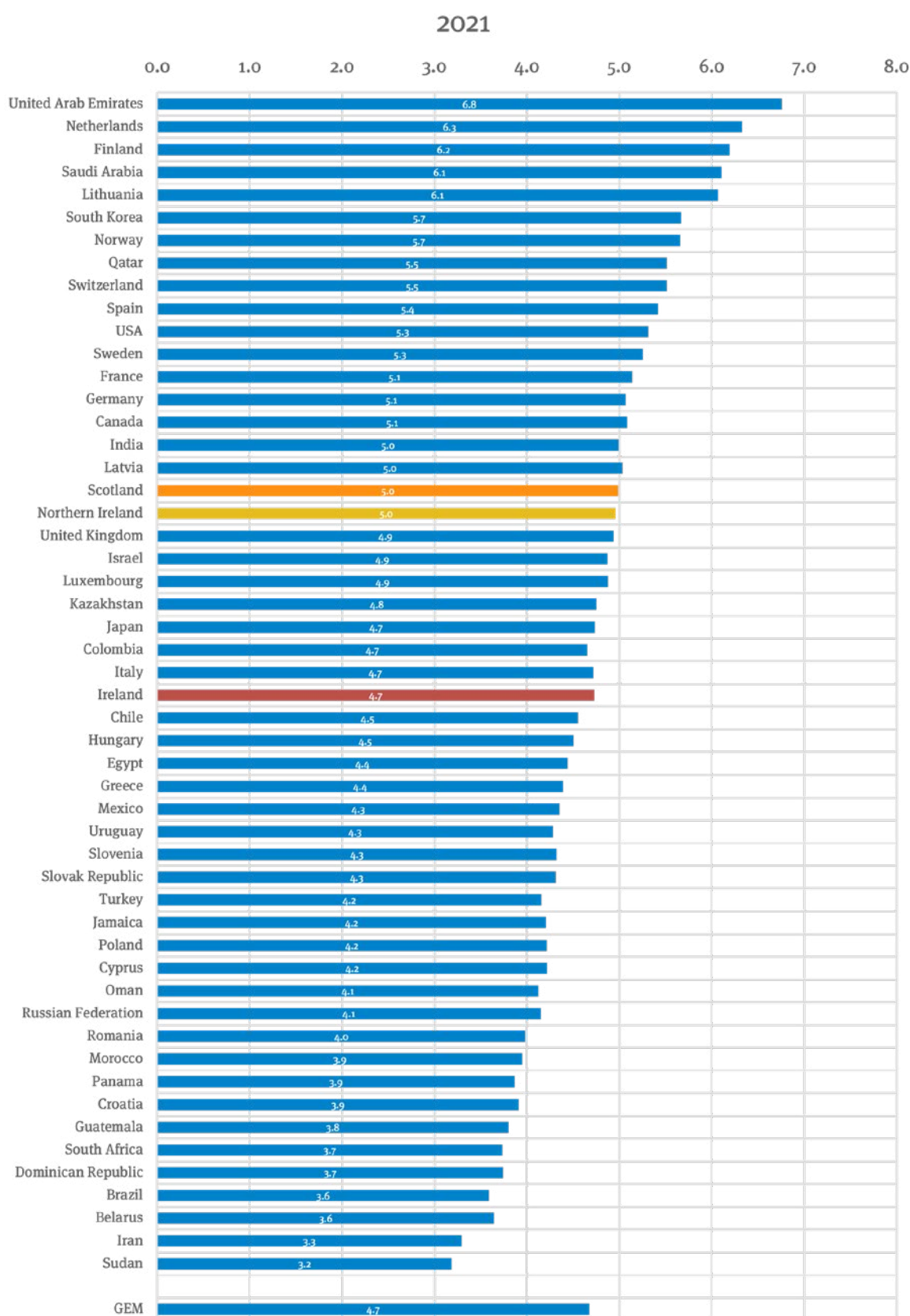
In order to provide an overall view of how favourable an environment is for entrepreneurial activity across countries, GEM introduced the National Entrepreneurship Context Index (NECI)<sup>12</sup> in 2018. It is a composite index which represents the arithmetic average of EFCs as set out in Figure 7.1.

EFCs and NECI are based on experts' perceptions of the entrepreneurial conditions within a particular economy and in a particular moment of time. Any cross-country analysis should be performed with caution. Entrepreneurial activity, deeply rooted in cultural traditions and norms, can persist despite difficult conditions and, on the contrary, can be lagging despite a relatively favourable setting. However, these metrics provide a useful benchmarking tool to capture the strengths and the weaknesses of the national entrepreneurial context by comparing it with other countries. This exercise may provide guidance on the possible directions of improvement to better support and stimulate thriving entrepreneurial activity.

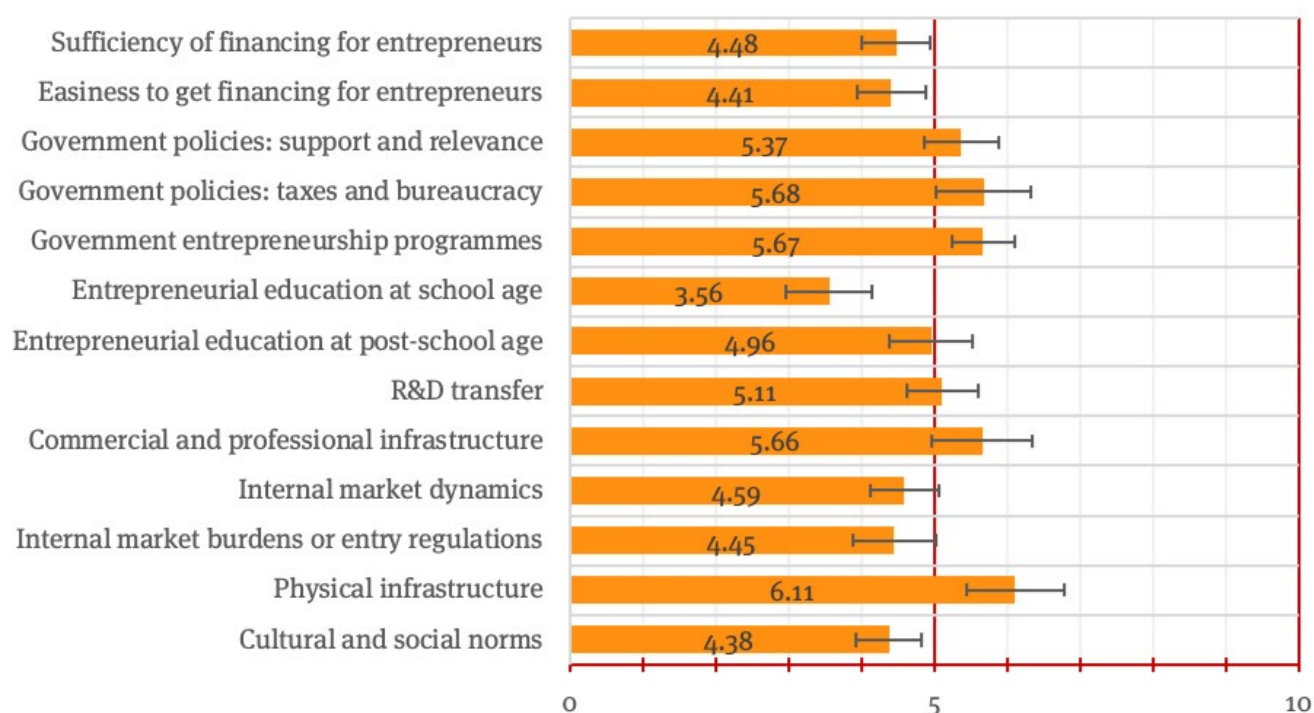
In 2021, the UK with a total NECI score of 4.9 ranked 18<sup>th</sup> among 50 participating countries (Figure 7.3). Scotland and NI, as sub-regions of the UK, both scored 5.0 while Ireland ranked lower at 4.7. A score below 5 out of 10 (neutral point) indicates that experts regard the conditions for entrepreneurship to have room for improvement. In 2021, the NI overall index is much lower than the scores of top-ranked countries, including the Netherlands, the highest ranked in Europe, with a score of 6.3, and the UAE with the highest score of 6.8.

Figure 7.4 reports the values and 95% confidence intervals for each of the thirteen pillars describing the entrepreneurial context in NI. Among these pillars, two have values statistically significantly higher than 5 (out of 10) meaning that, according to the national experts surveyed, physical infrastructure (6.11) and government entrepreneurship programmes (5.67) are in sufficient state to support entrepreneurial activity. On the contrary, four conditions – sufficiency of financing for entrepreneurs (4.48), easiness of access to financing for entrepreneurs (4.41), entrepreneurial education at school age (3.56) and cultural and social norms (4.38) – may be considered insufficient with 95% confidence, meaning that these are areas that need significant improvement.

<sup>12</sup> See, Bosma et al. (2020) for details.



**Figure 7.3: National Entrepreneurship Context Index (NECI) in 2021** (Source: GEM Global NES 2021)



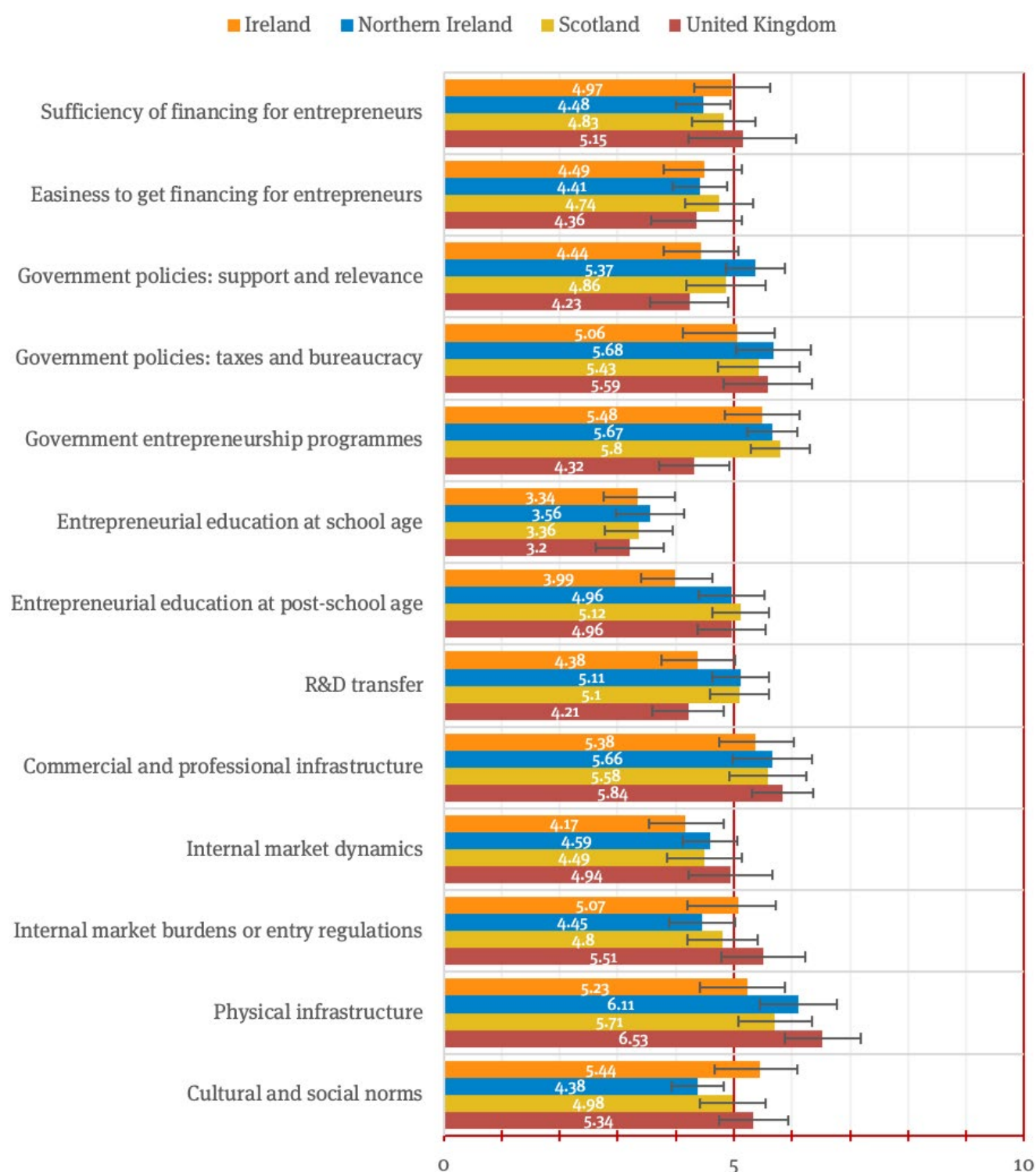
**Figure 7.4: Entrepreneurial Framework Conditions in NI in 2021** (Source: GEM UK National Expert Survey (NES) 2021) Note: black bars represent the 95% confidence intervals

Of the framework conditions, entrepreneurial education at school age was the only one in which the scores were below 5 for each benchmark nation, indicating that is an area of concern across countries (Figure 7.5). In comparison to those other nations in relation to the conditions identified above as needing significant improvement, NI was the only one in which we can be 95% confident that the scores lie below 5, suggesting that NI has particular problems with sufficiency and ease of access to finance, and in regards to cultural and social norms for entrepreneurship<sup>13</sup>.

## 7.2 Dynamics of NECI and EFCs in the UK in 2020-21

Table 7.1 shows the dynamic of each EFC during 2020 and 2021. Green cells indicate a sufficient state of EFC (value above 5) and red cells otherwise. R&D transfer was the only major improvement in EFC scores in NI in 2021 compared to 2020, moving from insufficient to sufficient. On the contrary, internal market burdens/entry regulations which was sufficient in 2020 moved into an insufficient state. There were also falls in the scores for cultural and social norms, internal market dynamics and entrepreneurial education at school age, which were already insufficient. In contrast, those framework conditions that were sufficient in both 2020 and 2021 all increased in score.

<sup>13</sup> Refer to Appendix X for comparisons of the underlying elements of each EFC.



**Figure 7.5: Entrepreneurial Framework Conditions in NI, UK, Ireland and Scotland in 2021** (Source: GEM UK National Expert Survey (NES) 2021) Note: black bars represent the 95% confidence intervals



		2020	2021
A /A1	Sufficiency of financing for entrepreneurs	4.85	4.48
A2	Easiness to get financing for entrepreneurs	-	4.41
B1	Government policies: support and relevance	5.04	5.37
B2	Government policies: taxes and bureaucracy	5.01	5.68
C	Government entrepreneurship programmes	5.36	5.67
D1	Entrepreneurial education at school age	3.71	3.56
D2	Entrepreneurial education at post-school age	4.61	4.96
E	R&D transfer	4.18	5.11
F	Commercial and legal infrastructure	5.27	5.66
G1	Internal market dynamics	4.86	4.59
G2	Internal market burdens or entry regulations	5.01	4.45
H	Physical infrastructure	5.86	6.11
I	Cultural and social norms	4.84	4.38

**Table 7.1: Entrepreneurial Framework Conditions in NI 2020-21** (Source: GEM UK National Expert Survey (NES) 2020, 2021)

### 7.3 EFCs in NI and benchmarks in 2021

In 2021, the NECI was 4.98 in Scotland and 4.95 in Northern Ireland compared to 4.94 in the UK and 4.73 in Ireland. The entrepreneurial framework conditions in NI were broadly similar to Scotland in 2021, and many followed the same trend as in the UK (Figure 7.6). Where NI, in particular, had higher scores than the UK was for Government support policies: support and relevance, Government entrepreneurship programmes and R&D transfer, however only the difference in Government entrepreneurship programmes was statistically significant.

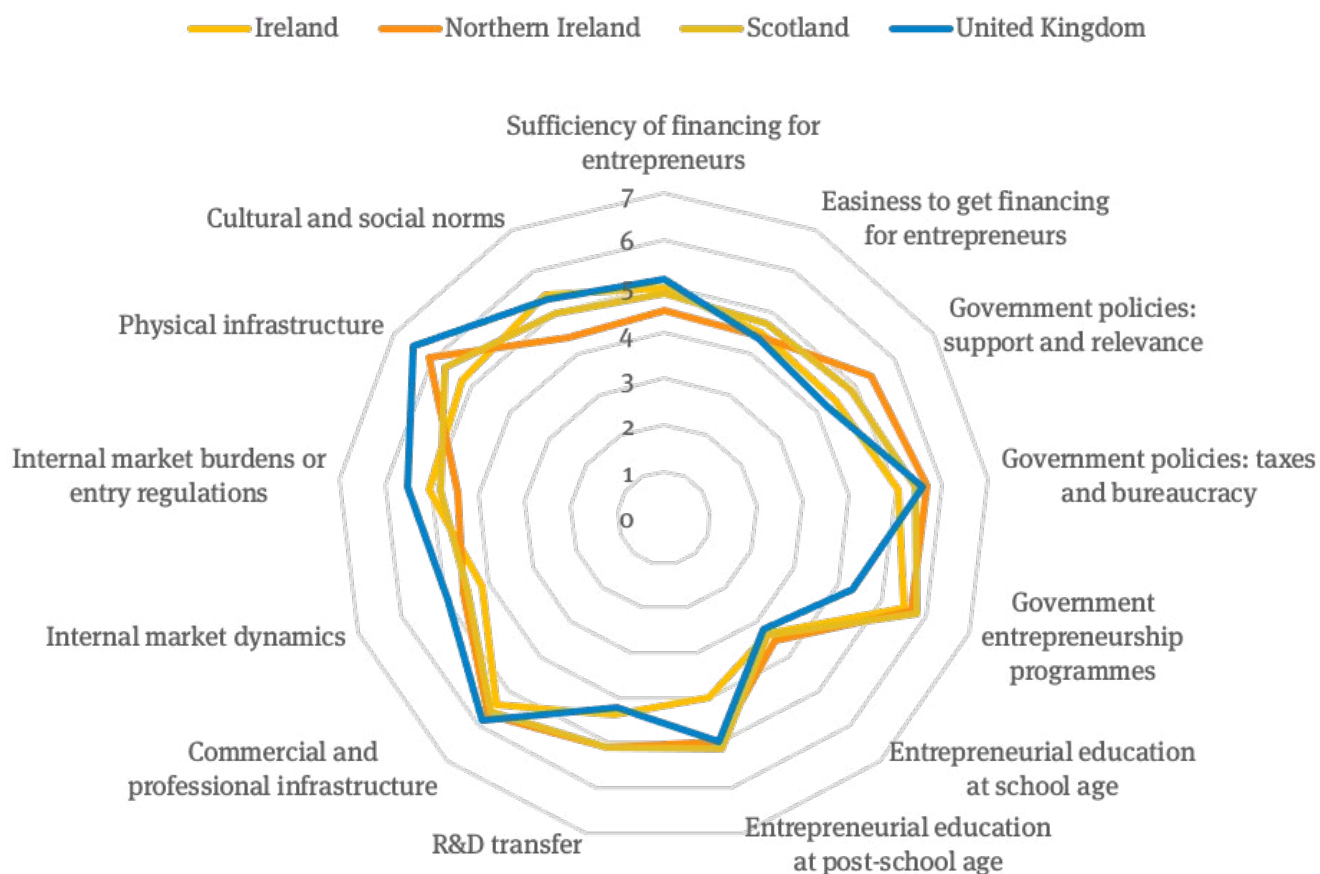
In contrast, the EFC scores indicate less favourable conditions in NI than in the UK when it comes to sufficiency of entrepreneurial finance, cultural and social norms, commercial and physical infrastructure and internal market dynamics and burdens. None of these were statistically significant however.

Similarly, although NI scored higher than Ireland in terms of Government policies and entrepreneurship programmes, R&D transfer and infrastructure, none of the differences were statistically significant.

### 7.4 Responses to the pandemic and support to women entrepreneurs

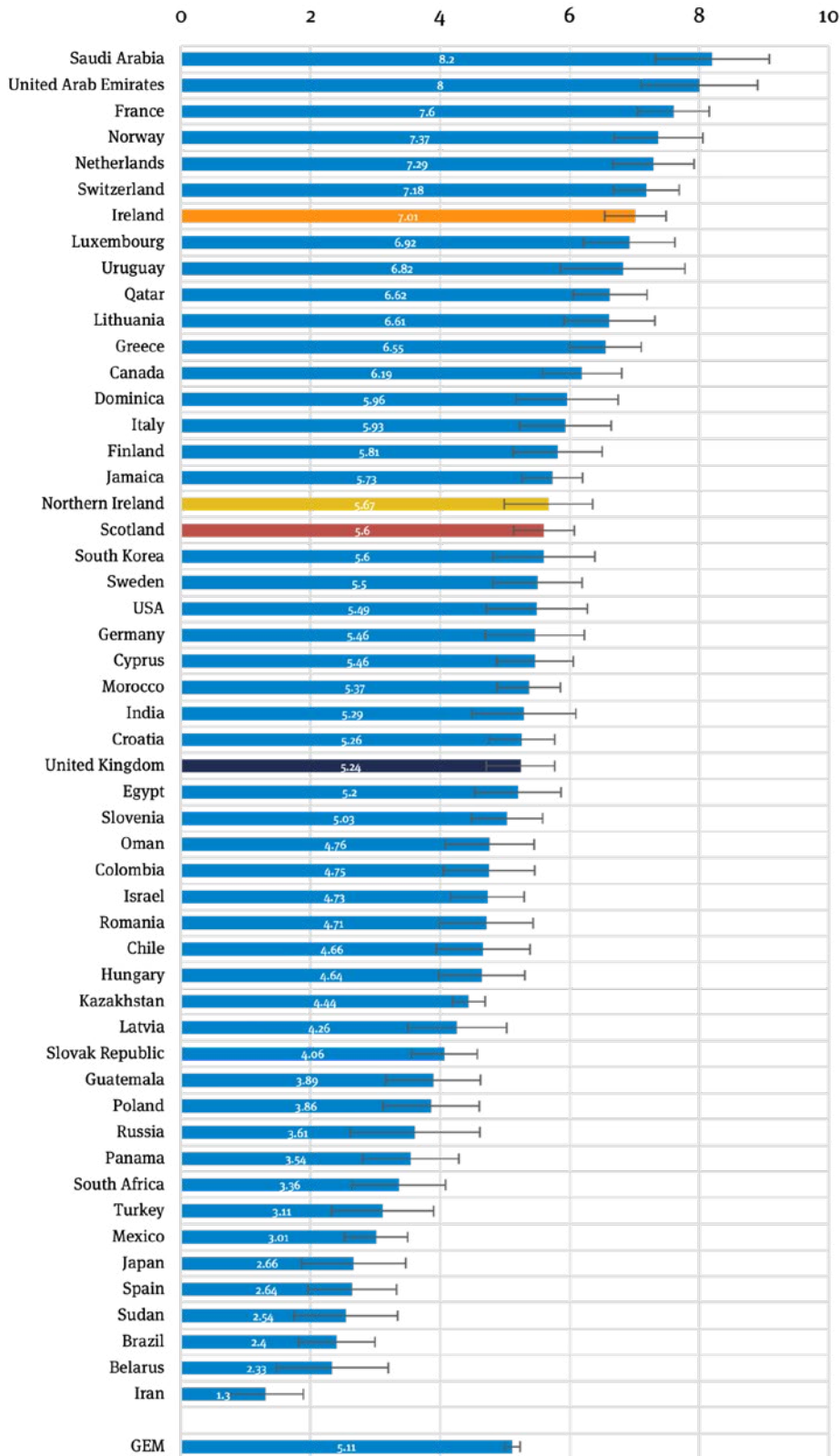
Governments across the globe intervened to support business ventures during the pandemic. In 2021, along with traditional questions, experts were asked if the support measures introduced by governments in the first twelve months of the pandemic had been successful in mitigating the decline in the number of new and growing firms and associated jobs. Overall, UK measures to avoid a decline in new and growing businesses were judged as sufficient with the score of 5.24. NI and Scotland were rated higher at 5.67 and 5.6 respectively. However, the support was judged as significantly less effective compared to some other countries, including Ireland, France and Netherlands<sup>14</sup> (Figure 7.7)

<sup>14</sup> Note that experts do not compare the effectiveness of measures across countries rather they evaluate the outcomes of government support measures in their own country. Therefore, other factors including cultural differences may influence these judgements.



**Figure 7.6: EFCs in NI, Ireland, Scotland and the UK in 2021** (Source: GEM Scotland NES 2021, GEM NI NES 2021, GEM UK NES 2021)

## Government mitigation of decline of new firms



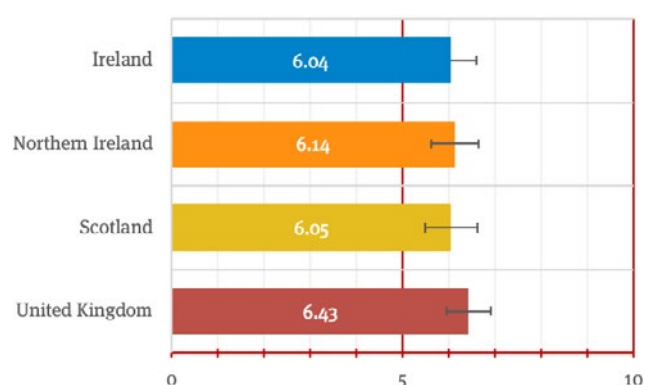
**Figure 7.7: Government mitigation of decline in 2021** (Source: GEM UK NES 2021, GEM Global NES 2021)

Note: black bars represent the 95% confidence intervals

Digitalisation and teleworking accelerated due to the pandemic. The progress towards this, and government support for adoption of digital technologies in from of specific subsidies, tax benefits or training were judged as sufficient by NI experts. This was also in line with the scores in the other benchmark areas (Figure 7.8).

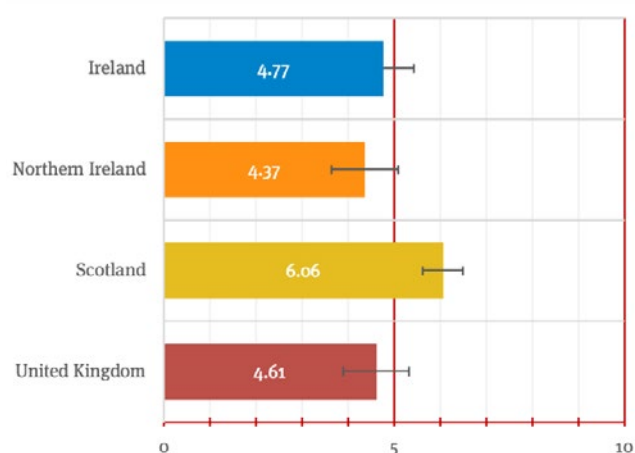
Furthermore, there was strong expert agreement that due to the pandemic the gig economy became an important driver for starting up new business, with many new but also existing growing businesses adopting gig-based business models. The score for NI was in line with the other benchmark areas (Figure 7.9).

In contrast, Scotland was the only nation in which the



**Figure 7.8: Progress and support to digitalization and teleworking in 2021** (Source: GEM UK NES 2021, GEM Global NES 2021)

Note: black bars represent the 95% confidence intervals

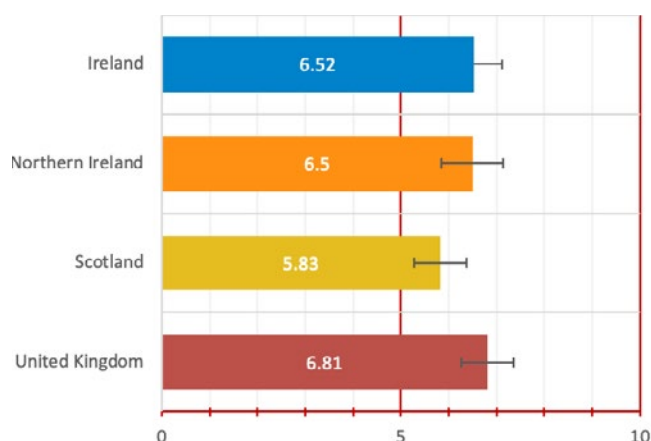


**Figure 7.10: Prioritization of environmental protection and governments' impulse of the green agenda in 2021** (Source: GEM UK NES 2021, GEM Global NES 2021)

Note: black bars represent the 95% confidence intervals

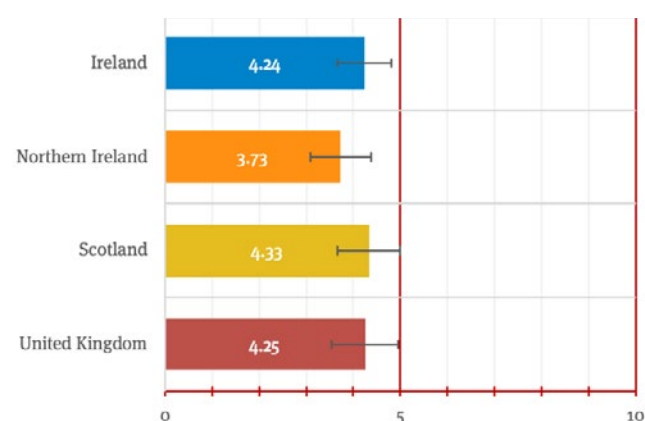
increase in prioritisation of environmental protection by businesses and acceleration of 'green agenda' by the Government was deemed as sufficient. The scores in NI and the other benchmarks of Ireland and the UK for this framework condition were statistically significantly lower than in Scotland. (Figure 7.10).

The new pillar describing the state of support to women entrepreneurs shows the insufficiency across all benchmark nations and may help explain the observed entrepreneurial gender gap. Experts agree that support to women entrepreneurs is insufficient in NI, with a score of 3.73. Although the other nations score higher the differences are not statistically significant, and all are below the sufficiency threshold of 5 (Figure 7.11).



**Figure 7.9: Rise of gig economy as a start-up driver and business model in 2021** (Source: GEM UK NES 2021, GEM Global NES 2021)

Note: black bars represent the 95% confidence intervals



**Figure 7.11: Support to women entrepreneurs in 2021** (Source: GEM UK NES 2021, GEM Global NES 2021)

Note: black bars represent the 95% confidence intervals

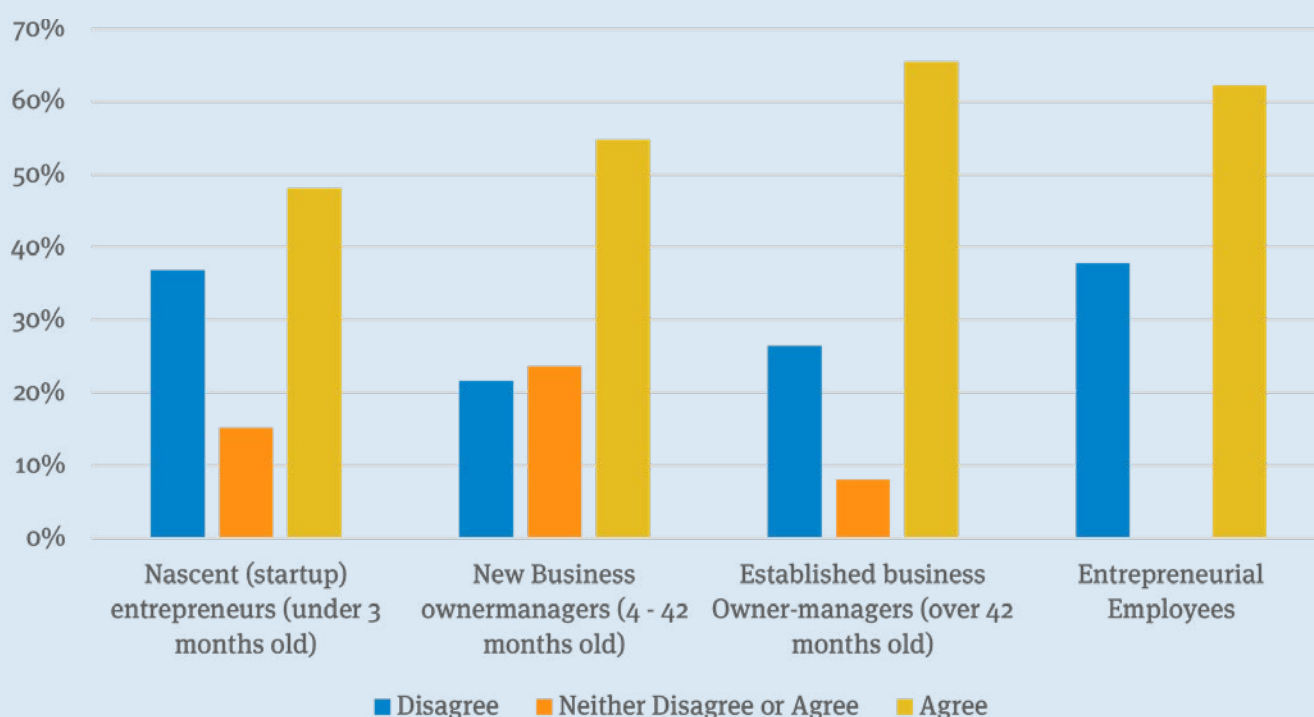
## 8. Impact of Covid-19 on entrepreneurial activity

The GEM 2021 study also sought to understand how the Covid-19 pandemic has continued to influence entrepreneurial activity.

First, within working-age adults already engaged in entrepreneurial activity, the GEM 2021 study explored the extent to which the coronavirus pandemic was seen to have provided opportunities that their business could pursue. As Figure 8.1 shows, around half of nascent (start-up) entrepreneurs and new business owner-managers agreed with the idea that the pandemic had provided new feasible opportunities, while this figure is even higher for both established business-owners and entrepreneurial employees (65.5% and 62.2%, respectively). This suggests that

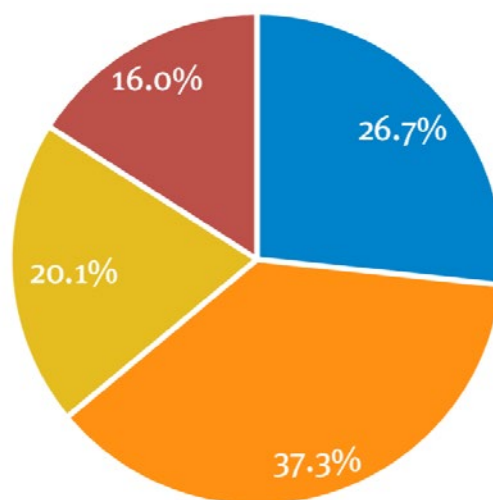
after more than a year of the pandemic, established business-owners have seemed to be more resilient and able to not only cope with the difficulties but also respond to any opportunity the pandemic has brought to their sector and markets.

Besides, Figure 8.2 shows that more than a quarter of nascent (start-up) entrepreneurs indicate that their businesses has adopted new digital technologies as a response to the pandemic, while more than one third have enhanced their digitalisation plan. However, still 16% of nascent (start-up) entrepreneurs claimed that their businesses can function without digital technologies.



**Figure 8.1: Incidence of perception of plausible new opportunities due to the Covid-19 pandemic**  
(Source: GEM UK APS 2021)



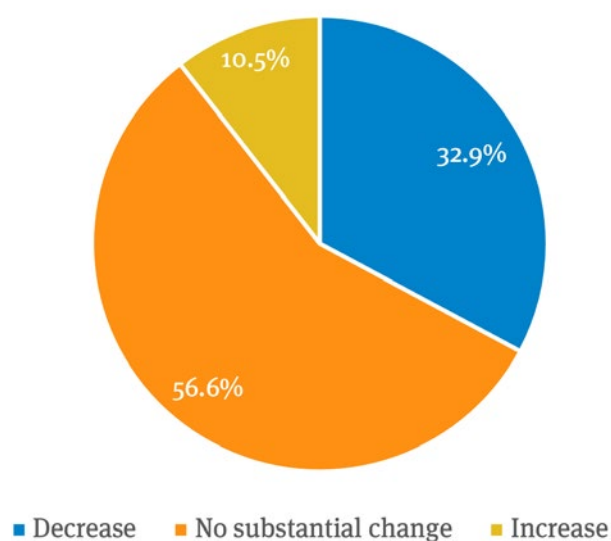


- Adopting digital technologies in response to the coronavirus pandemic
- Enhancing the initial plans with new or improved digital technologies
- Already planned a range of digital technologies before the coronavirus pandemic
- Business can function without digital technologies

**Figure 8.2: Effect of Covid pandemic on nascent businesses' adoption of digital technologies**

(Source: GEM UK APS 2021)

Finally, Figure 8.3 displays the effect of the pandemic on household income in Northern Ireland. Surprisingly, more than half of individuals reported that there has been no substantial change in their household income, while only less than one third said that it decreased. This positive note might be attributable to the effectiveness and timeliness of several supporting government schemes such as furlough.



**Figure 8.3: Effect of the pandemic on household income** (Source: GEM UK APS 2021)

## 9. Concluding Observations

Levels of entrepreneurial activity are a vital metric in any economy as the creation of new ventures is positively connected to the drivers of economic growth and productivity through increased innovation, competition and job creation. While recent years have seen record levels of start-up in the UK in an international context there still remains an ‘entrepreneurial deficit’ in Northern Ireland, as measured by business start-up activity. However, 2021 saw a considerable increase in the overall entrepreneurial activity rate of Northern Ireland, even though the combined Northern Ireland rate for 2019-21 remained lower than the UK.

Northern Ireland has historically lagged behind the rest of the UK in terms of some of the attitudinal measures of entrepreneurship, particularly in the perception of start-up opportunities in the local area, even though self-perception of skills to start a business in Northern Ireland has indicated a stronger increasing trend in comparison with the UK. In addition, the share perceiving good opportunities for start-up in Northern Ireland has markedly increased from 28.3% in 2020 to 46.7% in 2021. Nevertheless, fear of failure in Northern Ireland has remained quite high at 56.5% in 2021.

Nearly half of individuals in Northern Ireland stated that they know someone that started a business recently. This figure is significantly higher than the 43.1% share in the UK in 2021. This may reflect the increased presence of entrepreneurs in society and/or may be a sign of increased networking.

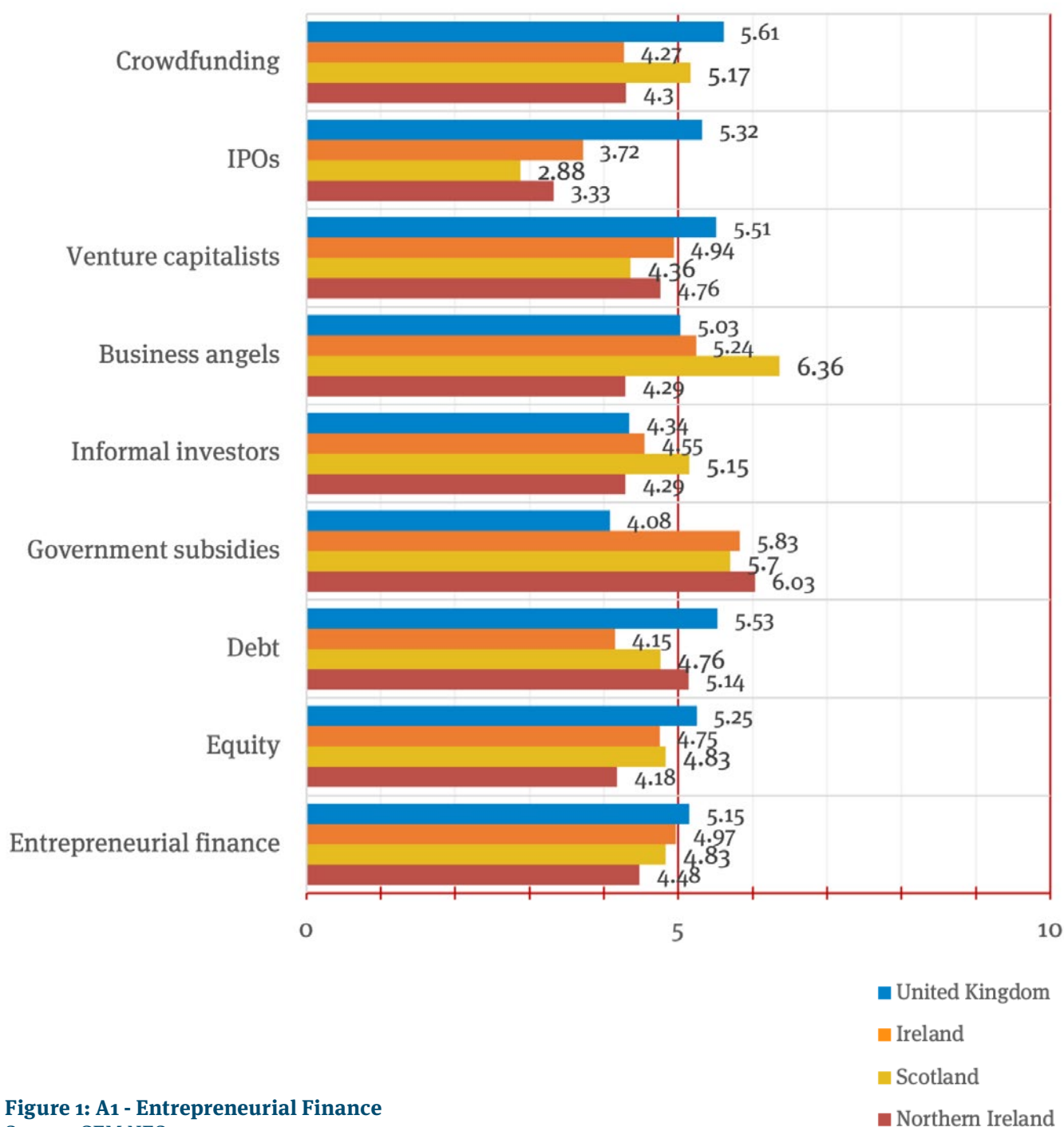
Entrepreneurs who expect to create a large number of jobs potentially make a greater contribution to growth and regeneration. Recently, the rate of high job expectation in Northern Ireland has continued to show an increasing trend.

The Entrepreneurial Framework Conditions which represent aspects of the entrepreneurial ecosystem were examined using the GEM National Expert Survey. In 2021 the experts’ responses indicated that there are deficiencies in four of these conditions in NI, namely sufficiency of financing for entrepreneurs, easiness of access to financing for entrepreneurs, entrepreneurial education at school age, and cultural and social norms. As with other comparator nations, support to women entrepreneurs was also deemed insufficient in NI.

In order to further support increased entrepreneurial activity measures to improve these deficiencies in the ecosystem will be required. This will become increasingly important, particularly in the short to medium-term, as the economy seeks to grow and recover from the effects of the Covid-19 pandemic. Stimulating start-ups will continue to be important but providing a support framework from both the private and public sector to help them survive and grow is now also a crucial element of any developing policy framework. The recent “10X Economy Vision for a Decade of Innovation” from the Department for the Economy of Northern Ireland has stressed that: “Our ambition is to become an economy known for its enterprising culture and we want to drive up the rate of new business starts ups and create an environment that actively fosters and supports entrepreneurs to turn their ideas into reality”<sup>15</sup>. Further efforts to stimulate the number of start-ups and those with the potential to provide jobs will now be crucial also for economic recovery.

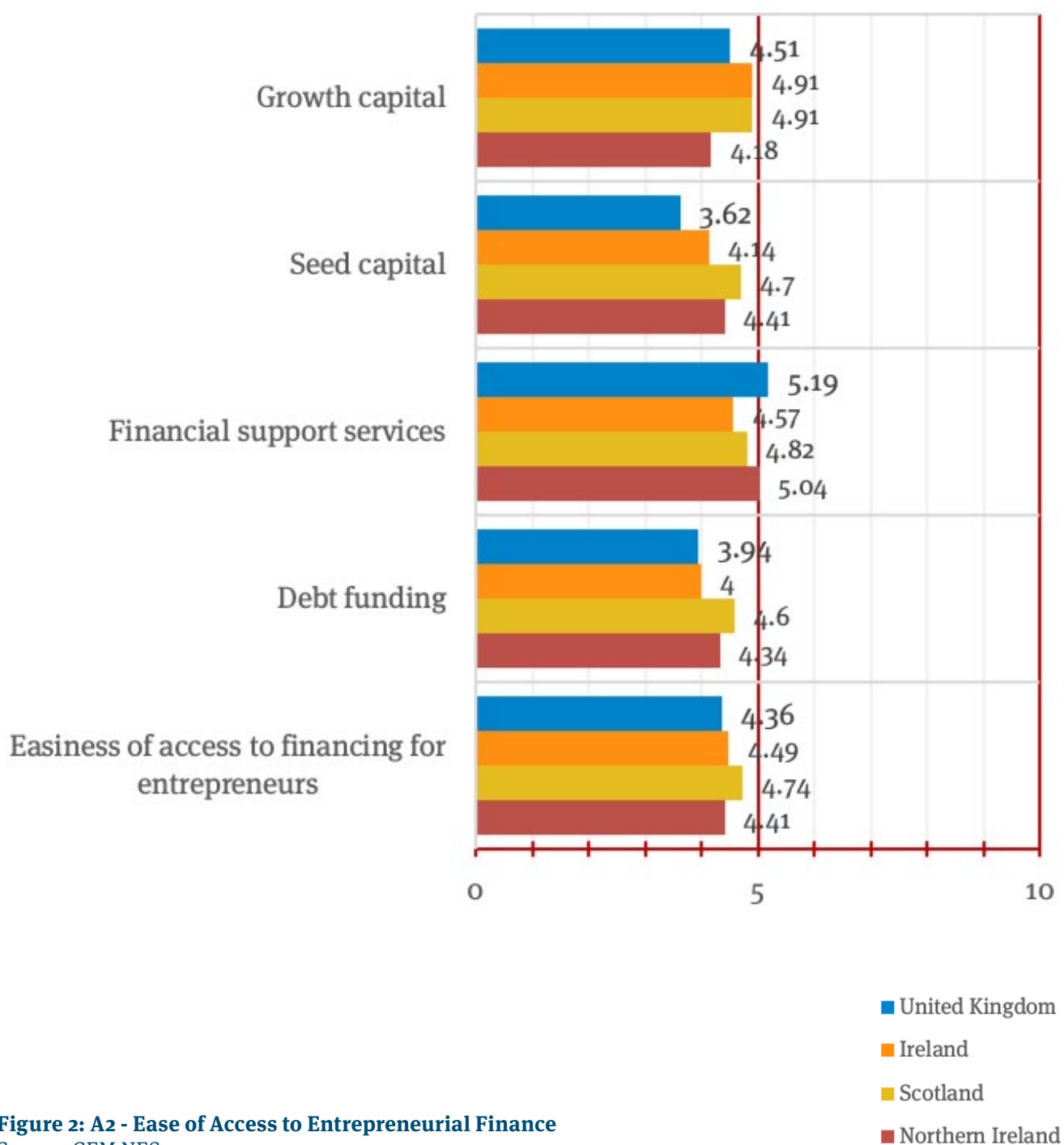
<sup>15</sup> DfE - 10X Economy: Northern Ireland’s Decade of Innovation

# Appendix 1: Entrepreneurial Framework Conditions

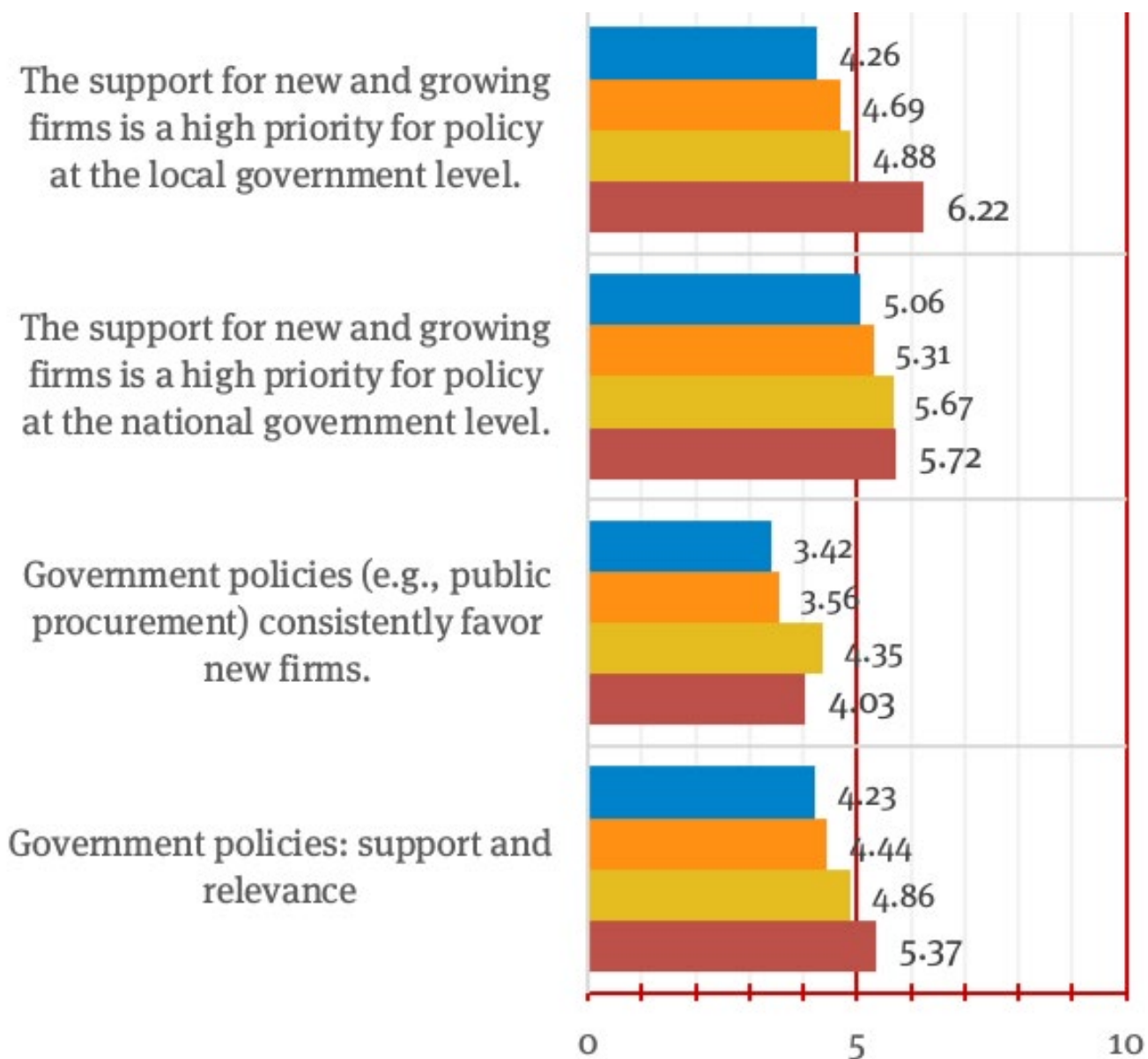


**Figure 1: A1 - Entrepreneurial Finance**

Source: GEM NES 2021



**Figure 2: A2 - Ease of Access to Entrepreneurial Finance**  
Source: GEM NES 2021

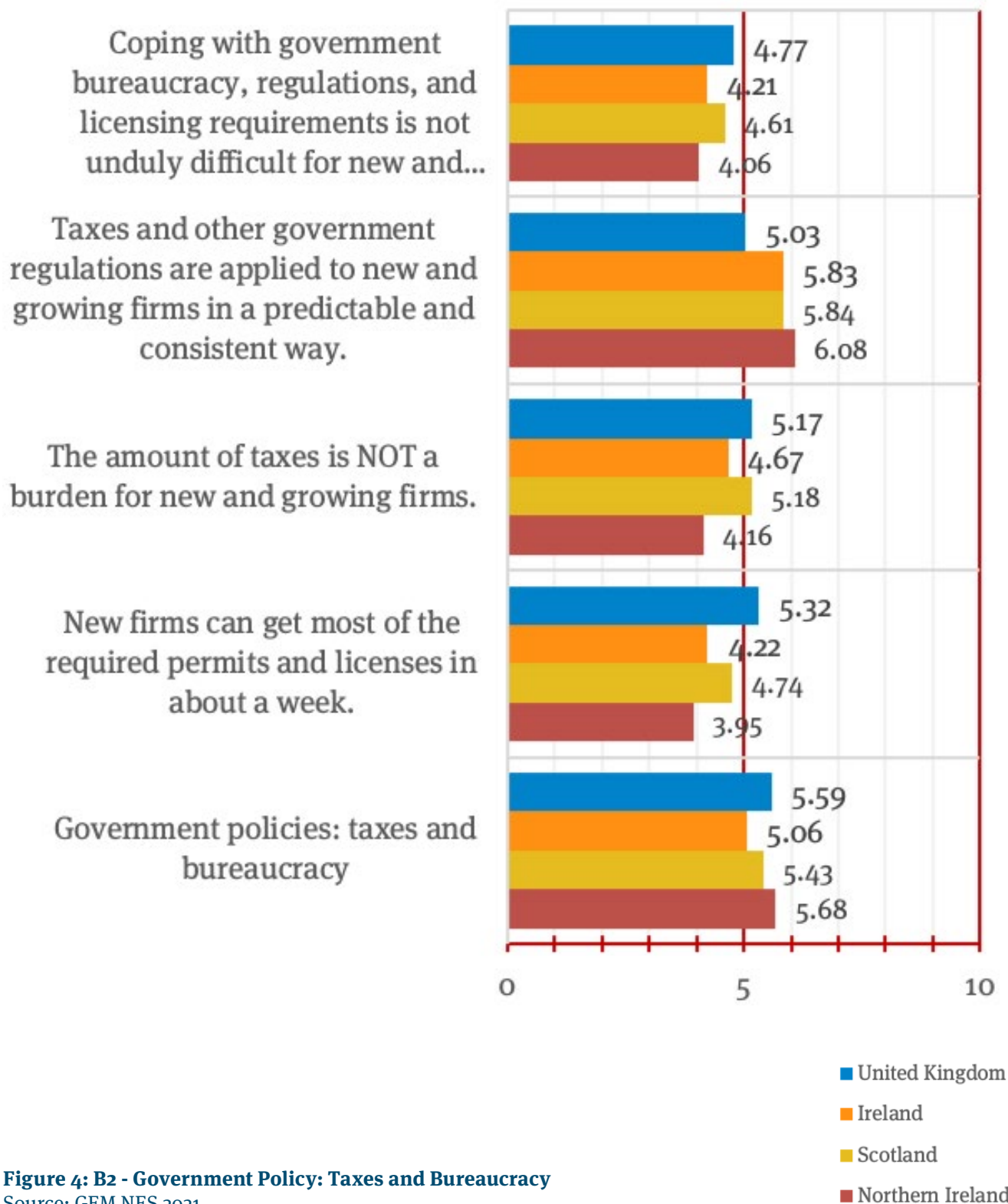


**Figure 3: B1 - Government Policy: Support and Relevance**

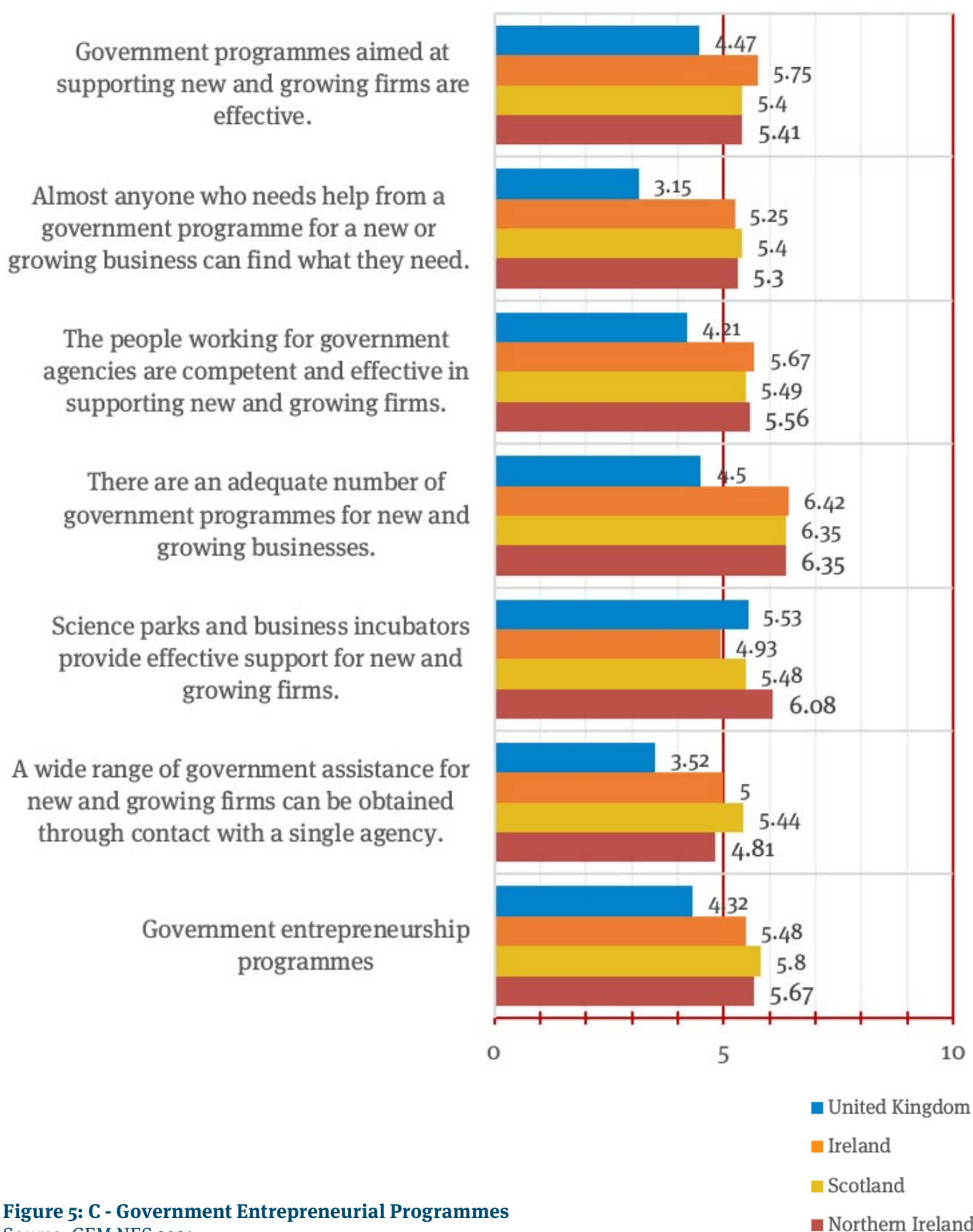
Source: GEM NES 2021

■ United Kingdom  
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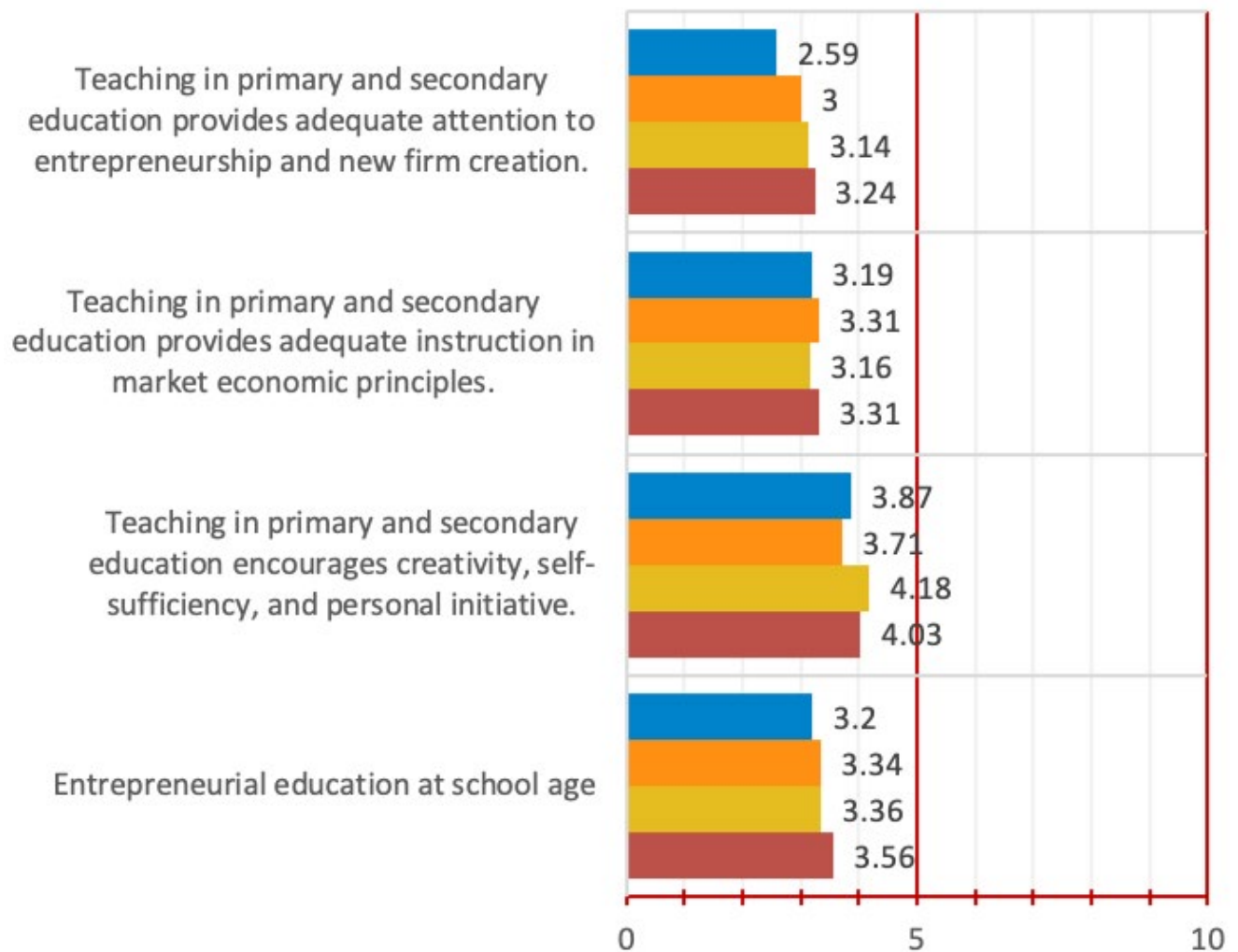


**Figure 4: B2 - Government Policy: Taxes and Bureaucracy**  
Source: GEM NES 2021



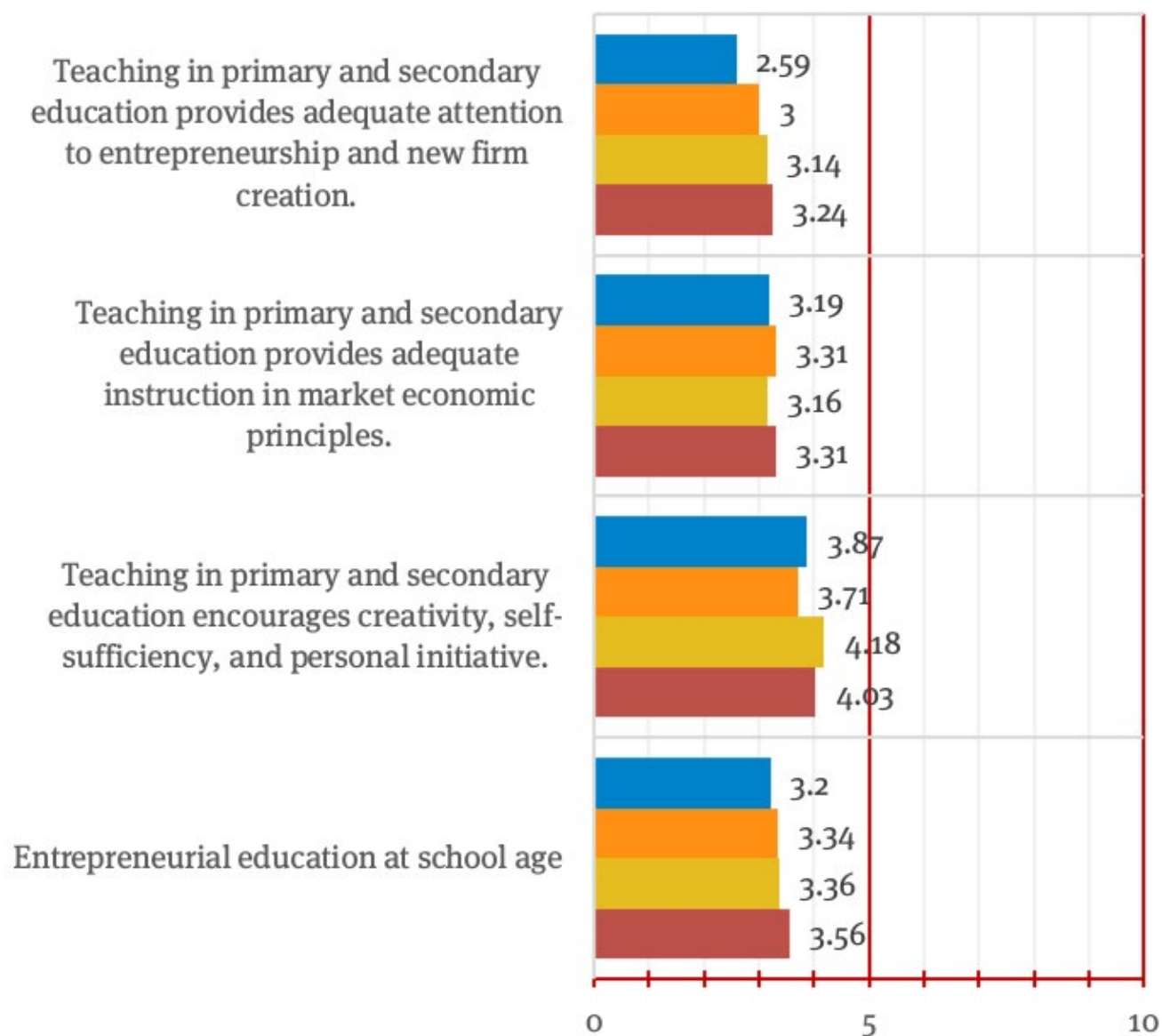
**Figure 5: C - Government Entrepreneurial Programmes**

Source: GEM NES 2021



**Figure 6: D1 - Entrepreneurial Education at School**  
Source: GEM NES 2021

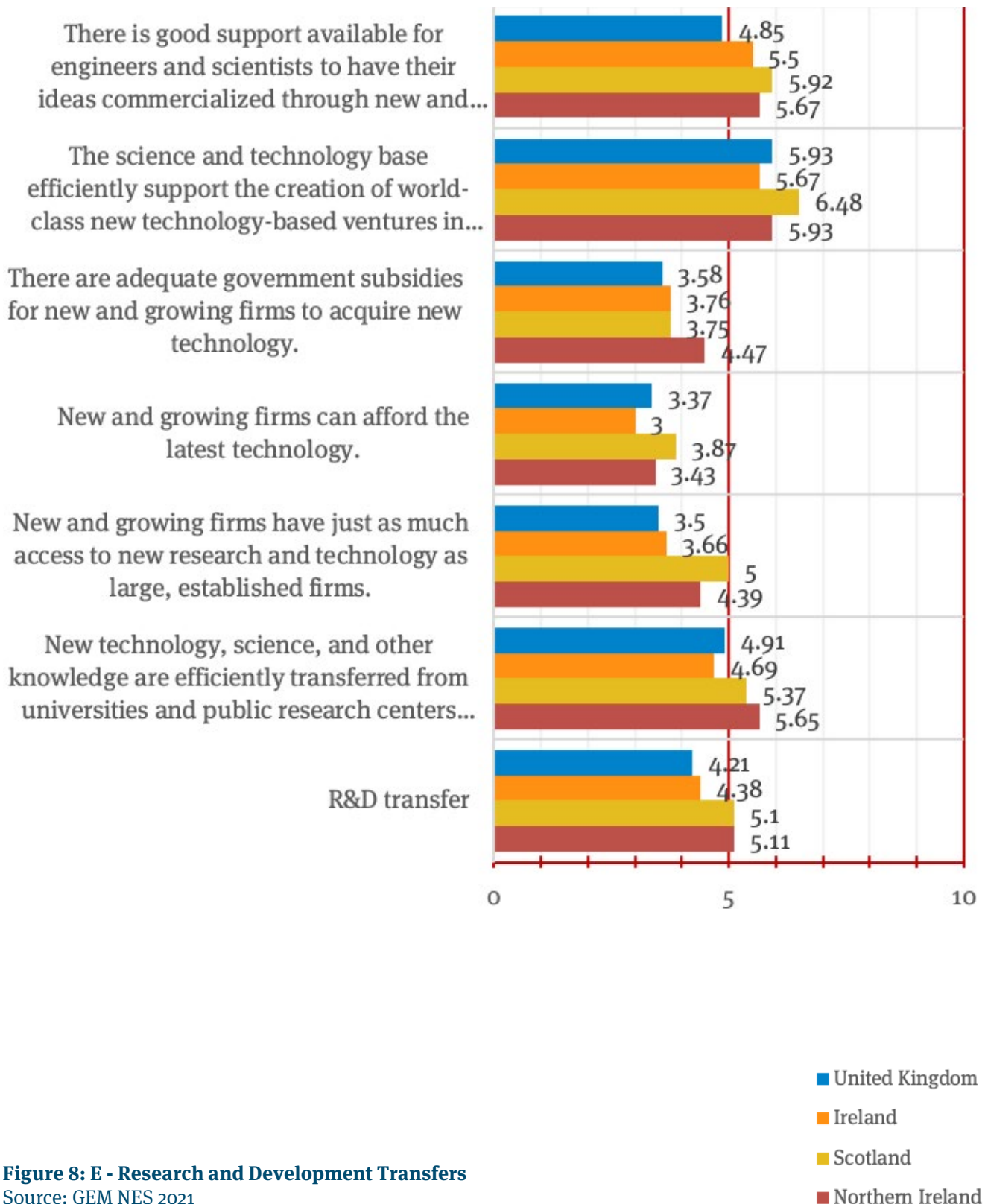
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**Figure 7: D2 - Entrepreneurial Education Post-school**

Source: GEM NES 2021

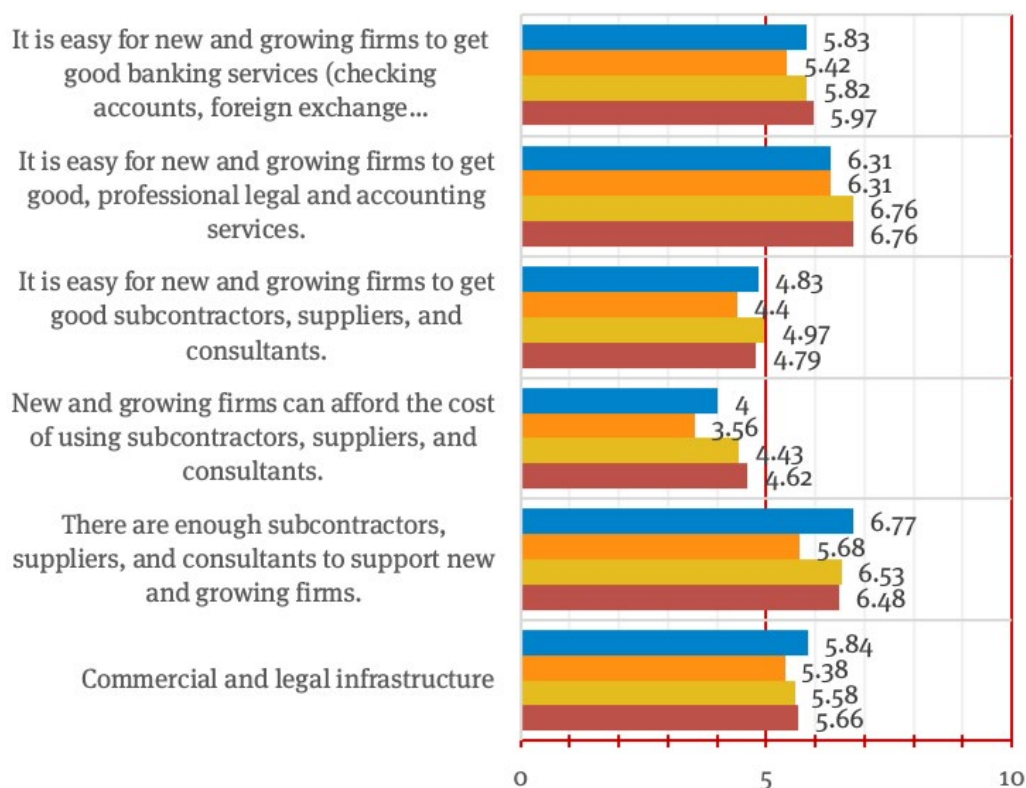
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**Figure 8: E - Research and Development Transfers**

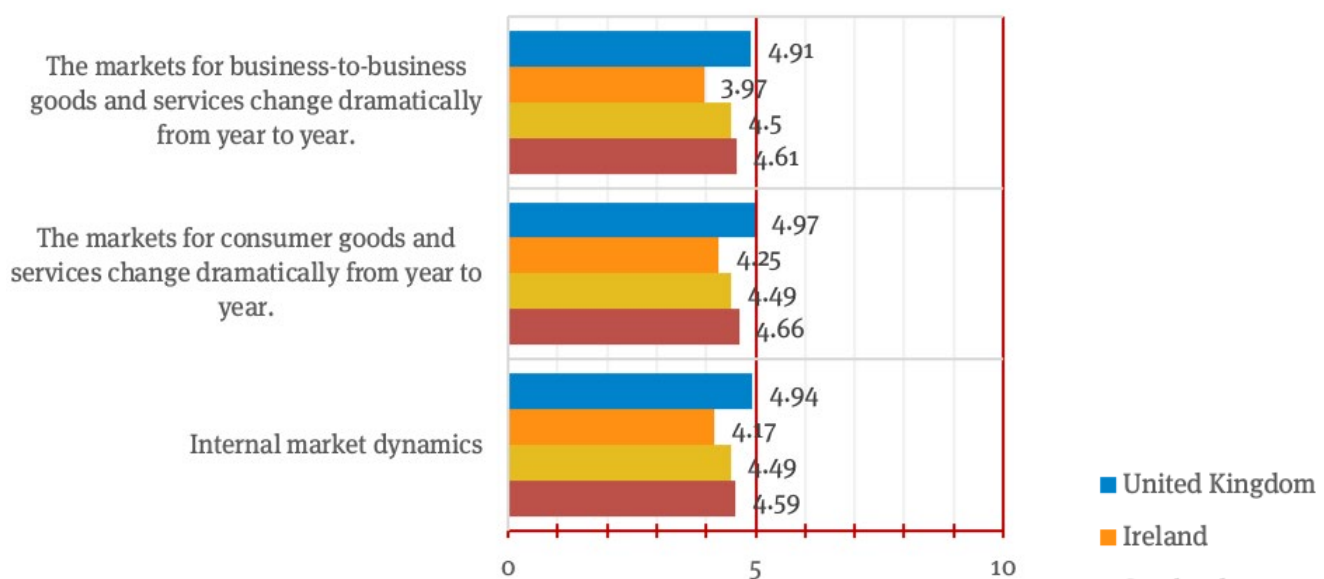
Source: GEM NES 2021





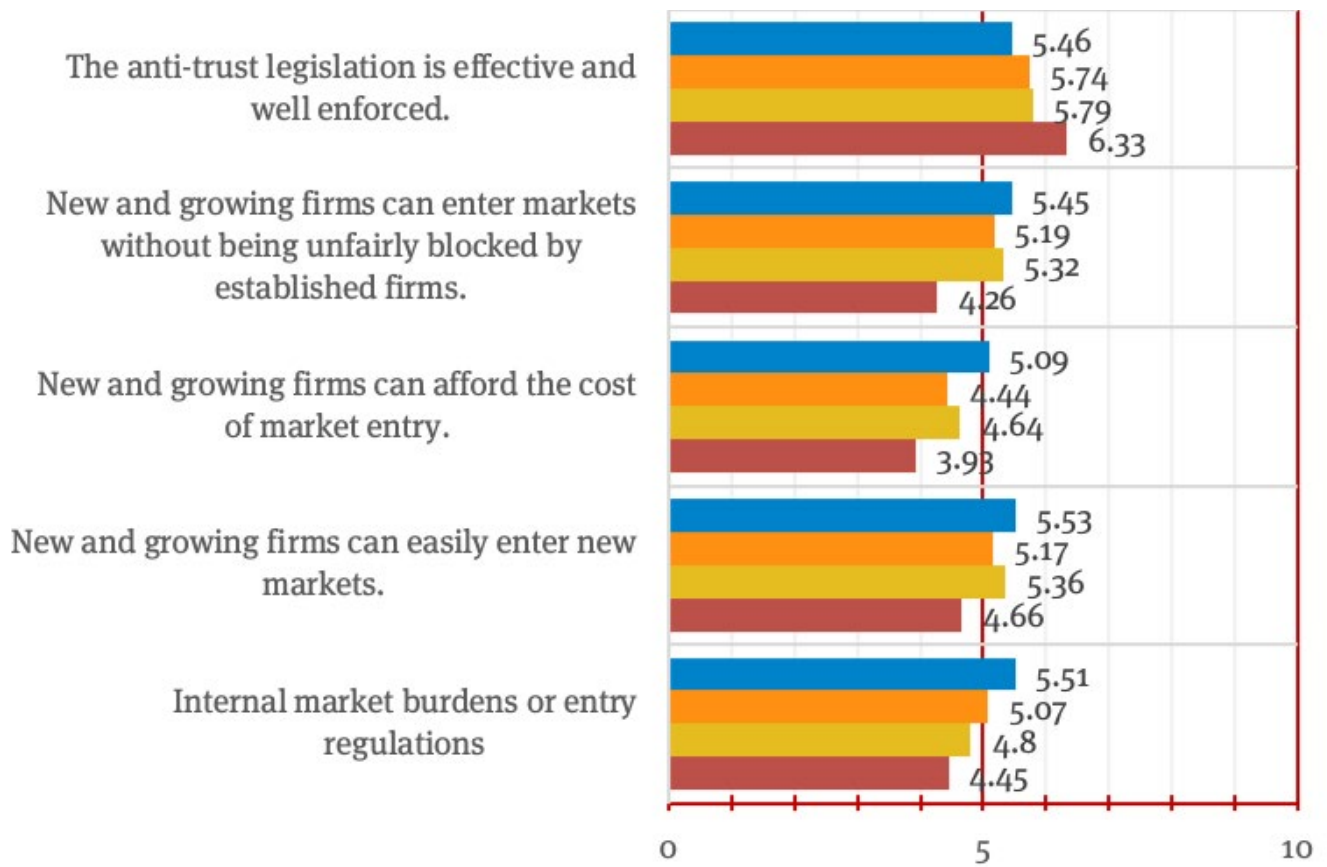
**Figure 9: F - Commercial and Professional Infrastructure**

Source: GEM NES 2021



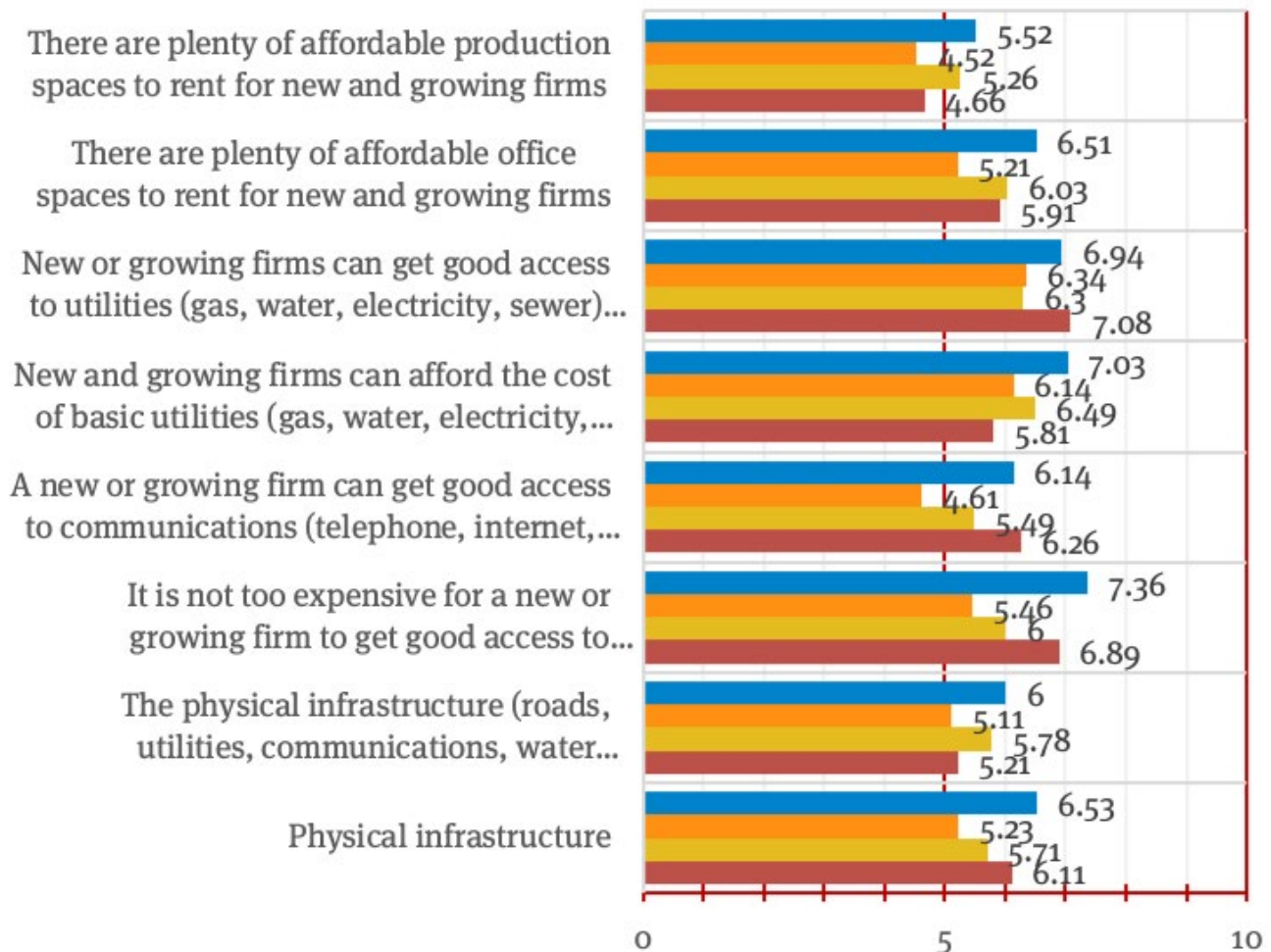
**Figure 10: G1 – Ease of Entry: Market Dynamics**

Source: GEM NES 2021



**Figure 11: G2 – Ease of Entry: Burdens and Regulation**  
Source: GEM NES 2021

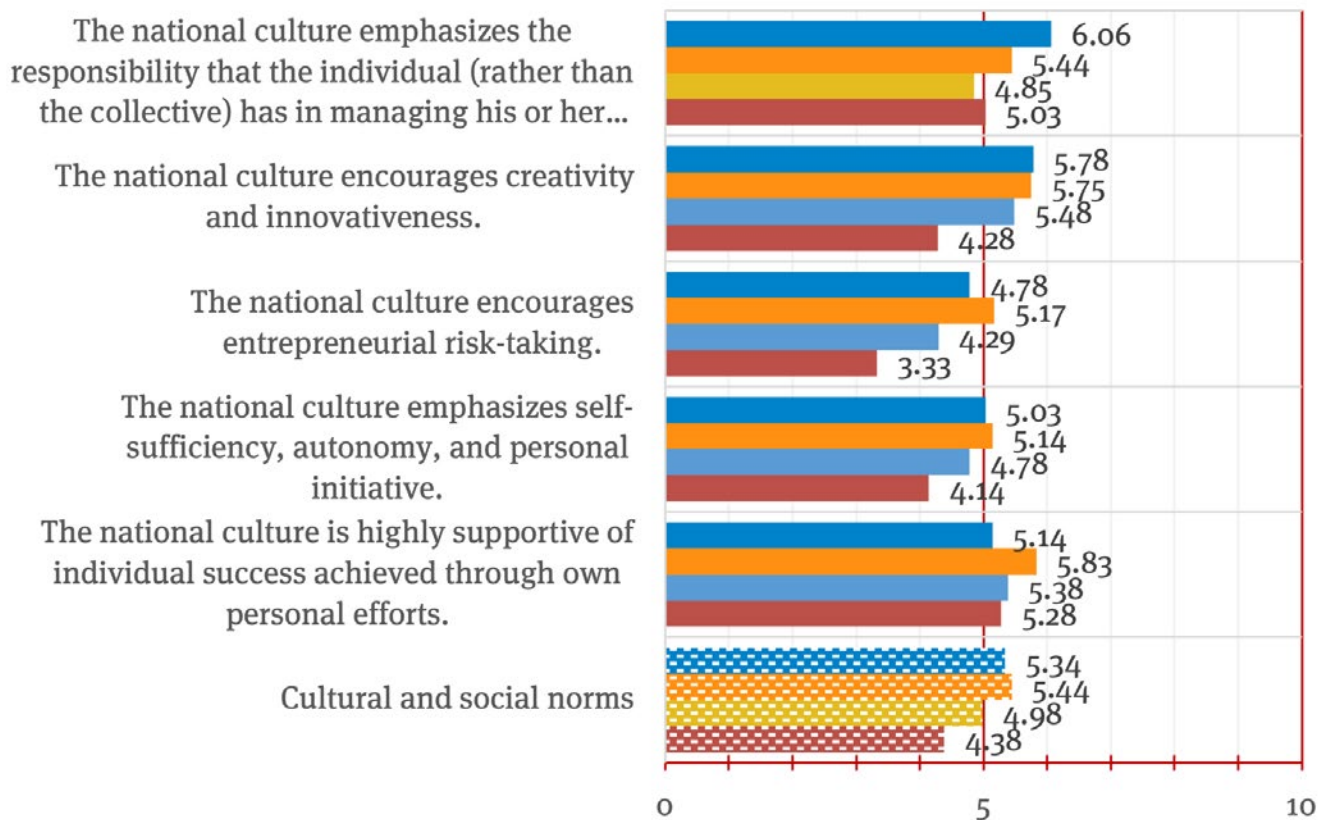
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**Figure 12: H – Physical Infrastructure**

Source: GEM NES 2021

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 ■ Ireland  
 ■ Scotland  
 ■ Northern Ireland



**Figure 13: I – Social and Cultural Norms**

Source: GEM NES 2021

■ United Kingdom  
 ■ Ireland  
 ■ Scotland  
 ■ Northern Ireland

**Disclaimer**

This report is based on data collected by the GEM consortium and the GEM UK team; responsibility for analysis and interpretation of the data is the sole responsibility of the authors.

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[www.gemconsortium.org](http://www.gemconsortium.org)