



**SKILLS FOR A
10X ECONOMY**

Executive Summary	3
<hr/>	
Chapter 1: Introduction	15
<hr/>	
Chapter 2: Strategic Context	17
<hr/>	
Chapter 3: Northern Ireland’s Current Skills Landscape	37
<hr/>	
Chapter 4: Strategic Goals, Policy Objectives and Policy Enablers	43
i. Addressing Skills Imbalances, Driving Economic Growth	44
ii. Creating a Culture of Lifelong Learning	57
iii. Enhancing Digital Skills, Developing Our Digital Spine	76
<hr/>	
Chapter 5: Policy Enablers	83
i. Enhancing Policy Cohesion	84
ii. Building Stronger Relationships	87
iii. Investment in the Skills System	91
<hr/>	
Appendix 1: Key Interface Strategies	99
<hr/>	
Appendix 2: Consultation Questions	103
<hr/>	

Executive Summary

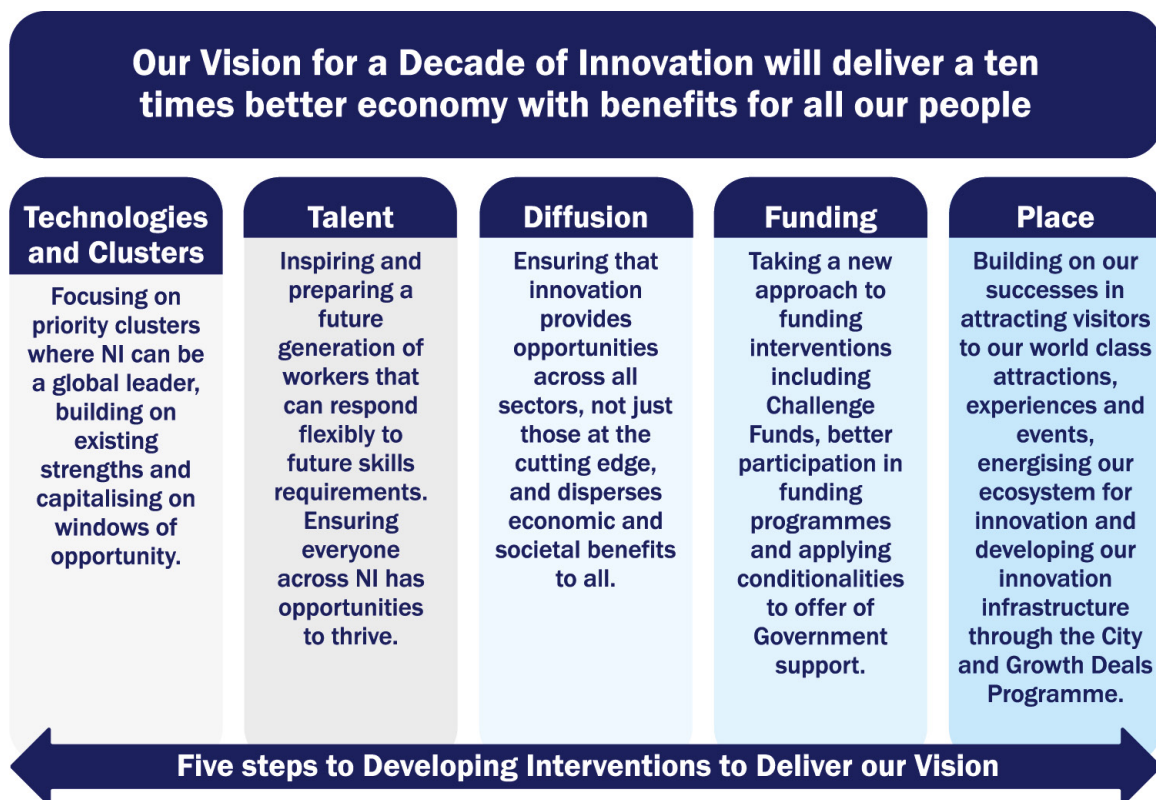
On 11th May 2021, we published our economic vision¹:

The ambition we have set out in [our] economic vision is for a ‘10x Economy’.

Northern Ireland’s decade of innovation will encourage greater collaboration and innovation to deliver a ten times better economy with benefits for all our people.

We will realise this ambition by focussing on innovation in areas where we have real strengths and making sure these gains mean something to all businesses, people and places in Northern Ireland.

Overall we will see a positive impact on our economic, societal and environmental wellbeing.



Delivering ‘a 10x Economy’ - an economy that is 10x stronger, 10x more prosperous, 10x more resilient - will require transformation in our skills system. In an economy with limited natural resource, the skills of our people are the primary driver of our success. Harnessing talent is not only a key objective in itself, it is integral to every aspect of this vision statement.

¹ DfE (2021) A 10x Economy: Northern Ireland’s Decade of Innovation. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/10x-economy-ni-decade-of-innovation.pdf>

It will mean investing in the skills that will drive our key strategic clusters, boosting the research and innovation potential of our workforce and developing Northern Ireland as a global hub of knowledge through strong collaboration between government, business and our world class research institutions.

It will mean working cohesively across our whole education system to address skills imbalances, driving increased participation in the STEM subjects that will underpin our economic success.

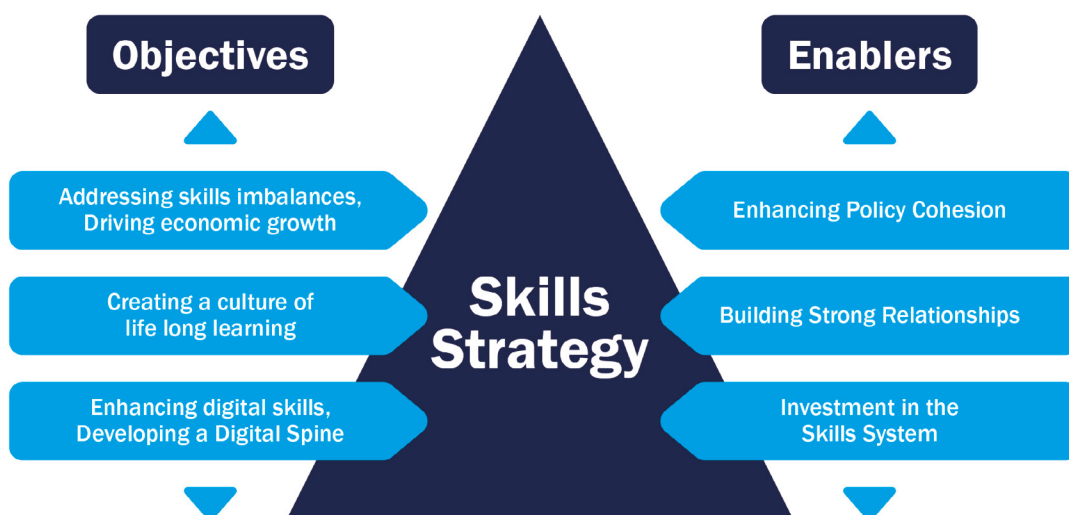
It will mean tackling social and educational inequality, ensuring appropriate pathways are in place to enable all our citizens to reach their potential, benefitting from and contributing to a stronger, more prosperous, more resilient Northern Ireland.

This is both urgent and strategic. The skills and talents of our people will be the foundation of our economic success. Harnessing the potential to deliver 'A 10x Economy' will mean engaging our existing workforce and business base in the collaborative design of a skills system that will maximise our competitive potential over the next decade.

At the same time, we must build on the strengths of our education system, laying the foundations of the modernisation which will ensure a rich vein of talent continues to flow into the heart of our economy, as the primary driver of the rich and prosperous future we envisage for Northern Ireland.

Skills for a '10x Economy'

Our draft consultation document identifies three major policy objectives and three underpinning policy enablers. These align to the principles set out in our economic vision; addressing skills imbalances, providing opportunities for all and placing collaboration and co-design at the centre of our strategy, to support key strategic clusters while delivering meaningful change for everyone. It aligns our skills system to the better jobs and better wages we want to see across our economy.



The Skills Barometer for Northern Ireland provides a clear guide to the skills we require to maximise our potential. It has been used as the primary evidence base to develop this draft strategy which will not only drive economic growth, but also establish a skills framework that addresses the key issues which have constrained Northern Ireland's economic and social development:

- the prevalence of individuals with low, or no qualifications
- limited opportunities for high paying jobs and pathways for career progression
- a 'skills deficit' and comparatively poor productivity performance.

The Skills Strategy and the Opportunity for Generational Change

As the COVID-19 pandemic took hold in Northern Ireland in early 2020, the research and stakeholder engagement phase of the development of this strategy had just closed. The evidence compiled and the draft framework of action that had been developed already signified the need for transformational change in our skills system. A number of drivers can be identified for this, which fall under the banner of what we have come to know as the fourth industrial revolution:

- rapid technological advancement;
- an aging population and longer working lives;
- dealing with the impact of climate change and the need for green growth;
- globalisation and an increasingly competitive global environment; and
- the UK's departure from the European Union.

As 'A 10x Economy' highlights, the Coronavirus pandemic sent a further shockwave through our economy and labour market; a shockwave which has caused much pain to many people. At the same time, it has provided an opportunity for us to reflect on how we recover, rebuild and bounce back stronger than ever.

For our skills system to deliver the talent we need to support a 10x Economy, we must take advantage of our small scale, addressing the fragmentation which has constrained our skills system. We must reverse the trend of declining investment in skills, revitalising our education system to ensure it is strategically aligned and properly resourced to deliver in a modern, small advanced economy. We must ensure that everyone has access to the education and training they need to reach their potential, delivering better jobs to more people.

Policy Objectives and Key Commitments²

As illustrated in the diagram above, our draft Skills Strategy is shaped around three policy objectives and three underpinning policy enablers. An overview of the rationale and intentions behind each objective and enabler is provided in the following pages, whilst a full description, including consultation questions can be found in the following chapters.

2 Annex A provides a summary of all 34 commitments set out in the Skills Strategy Consultation Document, including page references, to allow individuals to examine areas of specific interest further

Addressing Skills Imbalances, Driving Economic Growth

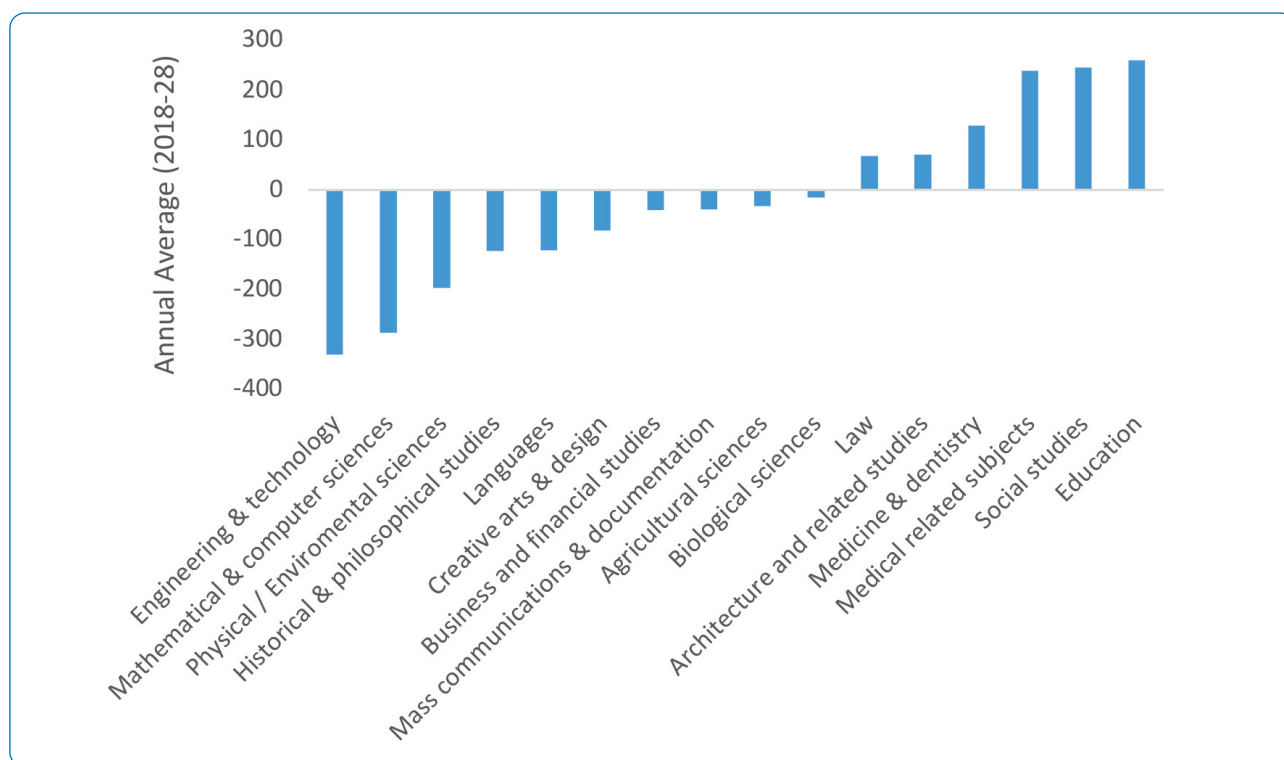
'Addressing Skills Imbalances, Driving Economic Growth' can be seen as an overarching objective. It is at the heart of what the draft Skills Strategy is trying to achieve and considers the change that needs to be delivered at all levels of the qualifications framework.

Whilst the draft Skills Strategy reflects a broad range of research which informs these proposals, the Skills Barometer for Northern Ireland is adopted as a primary evidence source, guiding our proposed interventions. Delivering the skills needed under its 'high growth scenario' is adopted as the marker for the strategic objectives which will support our economic vision, a 10x Economy. Whilst work is yet to be done on developing specific metrics - subject to consultation on these proposals – it is proposed that our targets will focus on:

- increasing the proportion of individuals leaving Northern Ireland higher education institutions with degrees and post-graduate qualifications in 'in-demand' STEM subjects, including: physical, environmental and computer sciences, engineering and mathematics;
- significantly increasing the proportion of individuals achieving level 3, 4 and 5 qualifications, in line with forecast demand; and
- increasing the proportion of the working age population with qualifications at level 2 and above.

Degree and Post-Graduate Education

At degree and post-graduate levels, the primary challenge for Northern Ireland is to increase the number of individuals entering the labour market with qualifications in STEM, particularly in the 'narrow STEM' fields: physical, environmental and computer sciences, engineering and mathematics. Success in this area is crucial to our economic vision.



Source: Skills Barometer for Northern Ireland; NQF level 6+ subject balance by subject (1-digit JAC)

At the highest levels of post-graduate education, we want to develop stronger relationships between government, business and our world class research institutions. This is not only intended to address the undersupply of qualifications aligned to the development of our priority clusters and the emerging technologies which will underpin them, but also to drive Northern Ireland’s potential as a global hub of innovation and knowledge. This will focus on Northern Ireland’s key strategic clusters – and the enabling technologies that will drive them - set out in ‘A 10x Economy’:

- Digital, ICT and Creative Industries (e.g. Cyber Security)
- Agri-Food
- Fintech/Financial Services
- Advanced Manufacturing and Engineering (e.g. Composites)
- Life and Health Sciences (e.g. Digital Medicine)

Whilst programme design remains subject to consultation and co-design with business and academia, we want to support an increasing number of post-graduate research degrees that are delivered in these areas, with an emphasis on business-led research design, to ensure education is focused on innovation with real market value.

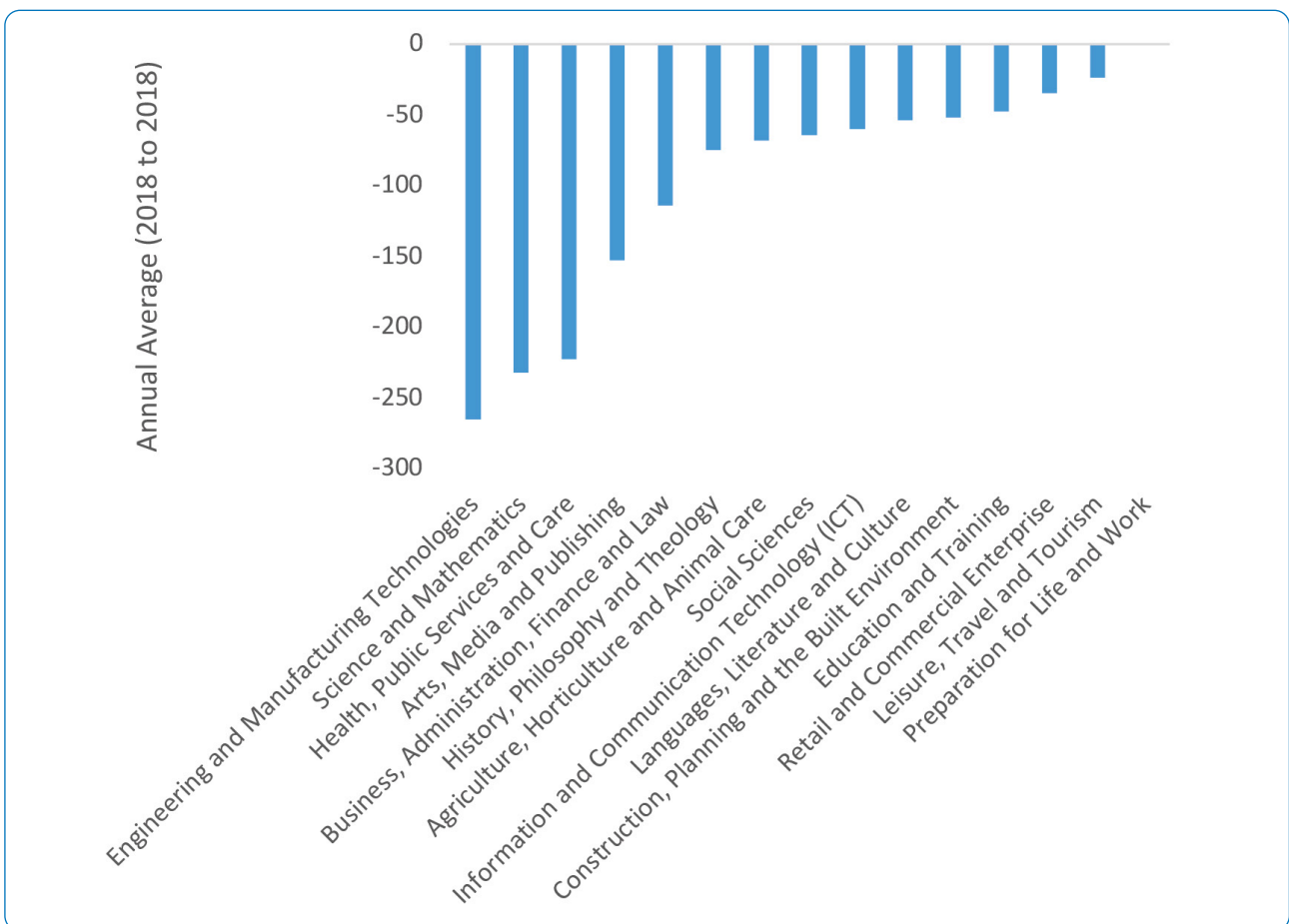
Underpinning this, we need to develop a rich pipeline of talent, increasing the number of individuals who choose to study STEM subjects at degree level. There are a number of ongoing projects which relate to this challenge including:

- ‘Women in STEM’, which seeks to address the significant under-representation in these areas of study;
- The joint DE/DfE ‘Transition of Young People into Careers (14 – 19) Project’;
- The Review of HE in FE; and
- The ‘Independent Review of Education’, announced by the Minister of Education in December 2020.

Careers education is recognised throughout these projects. Based on the evidence gathered to underpin the draft Skills Strategy, it is recommended that we reform careers education by introducing new measures of careers guidance outcomes and developing clear, common, transparent and accountable standards.

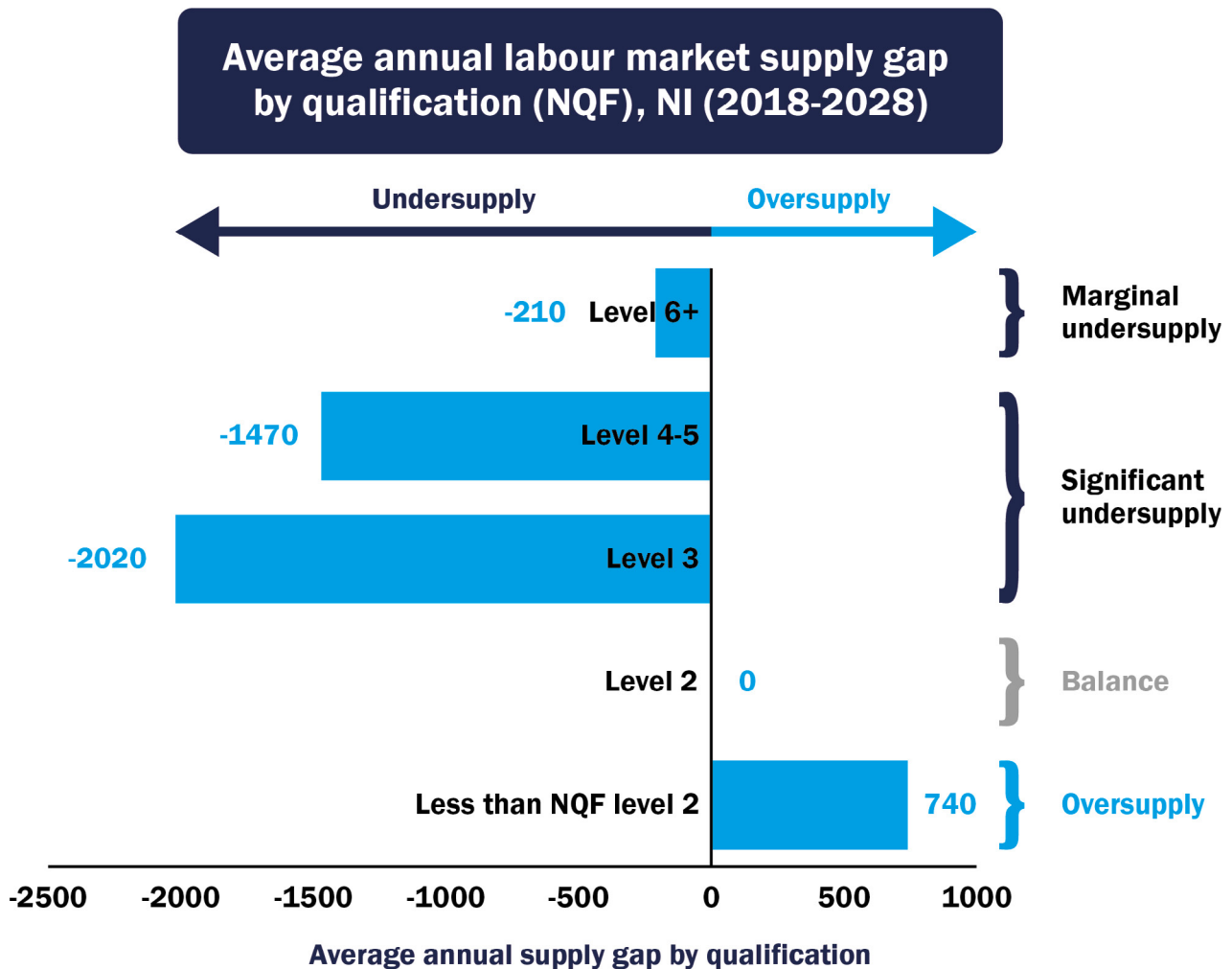
Mid-Level ‘Professional and Technical’ Education

As our economic vision recognises, degree level employment in Northern Ireland’s key strategic clusters will not be suitable for everyone. As our economy develops, it is anticipated that a broad range of opportunities will emerge at mid-level; an area where the Skills Barometer highlights a significant anticipated supply problem across a broad range of fields of study.



Source: Skills Barometer for Northern Ireland; NQF level 4/5 subject balance by subject (1-digit SSA)

Below level 4, the Skills Barometer does not provide a ‘by subject’ breakdown due to the diverse range of subjects typically studied, but it is clear that there is a substantial anticipated undersupply at level 3 and a significant oversupply of individuals with low or no qualifications.



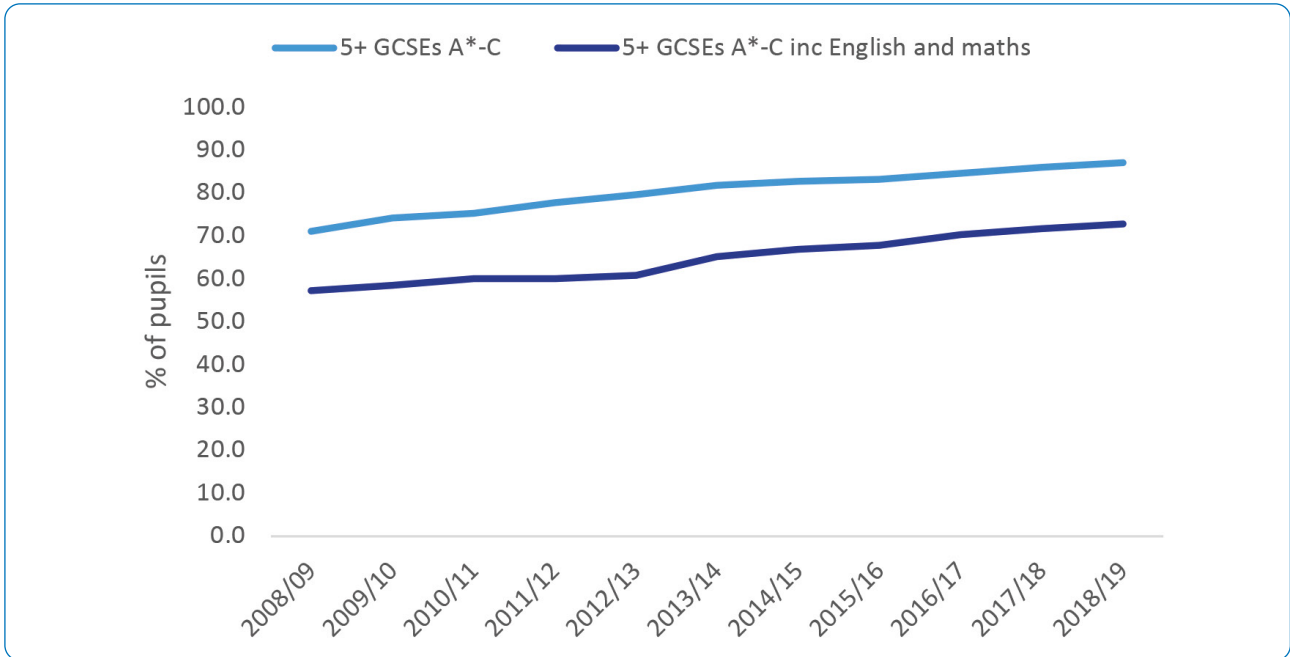
Source: UUEPC

This highlights the key role of Northern Ireland’s FE sector in addressing the skills deficit. The FE sector has a ‘dual mandate’ in Northern Ireland’s skills system. It is the primary provider of education at levels 4 and 5 and vocational qualifications at level 3. From a resource perspective, this must always be balanced against the need to maintain provision of entry level education to adults and school leavers. Addressing the mid-level ‘skills deficit’ must be balanced against the need to provide progression pathways to those who have not reached their potential in school-based education. From both an economic and social perspective, it is essential that the FE sector is properly resourced to deliver this dual mandate.

There are also challenges in understanding and addressing declining participation in level 4 and 5 education; the ongoing work on the 'Review of HE in FE' will be essential to this.

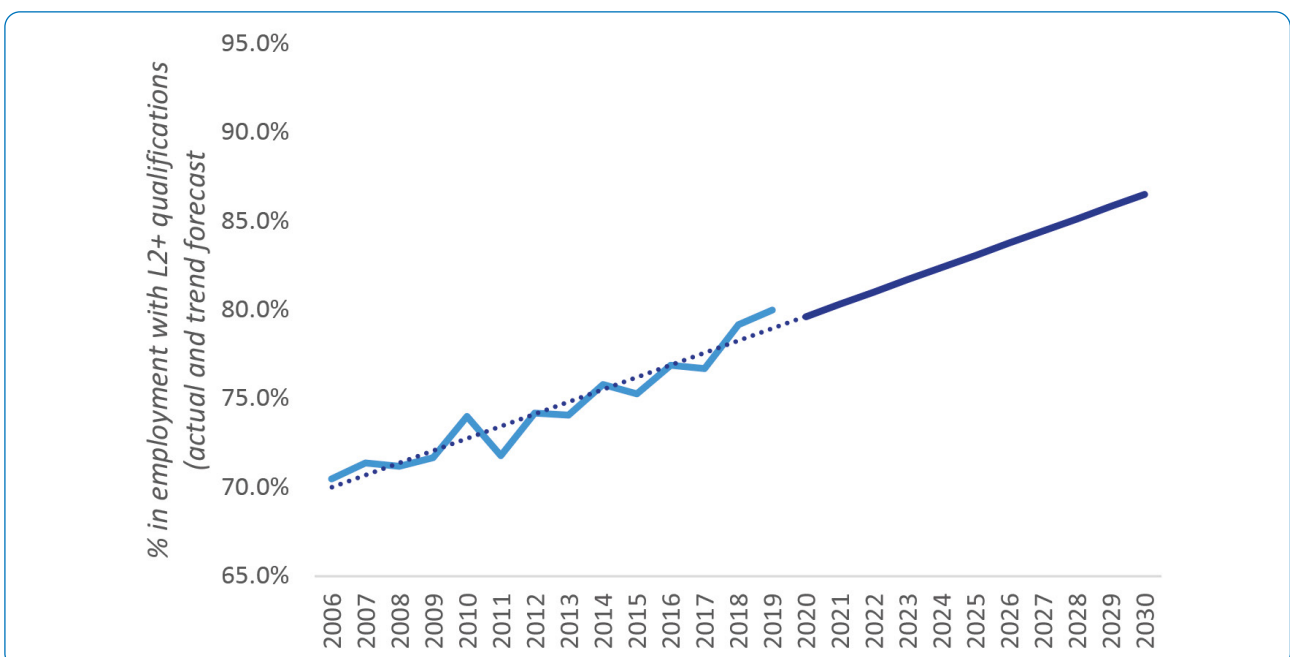
Low or No Qualifications

Over the lifetime of the last Skills Strategy – 'Success through Skills: Transforming Futures' - there was substantial improvement in the percentage of school leavers achieving level 2 qualifications:



Source: DE/NISRA – Year 12 performance at GCSE 2018/19

And the overall proportion of the workforce with qualifications at level 2 and above:



Source: NISRA - Proportion in employment with level 2 and above qualifications

This is undoubtedly a positive trend we want to see continue, however, it should not mask the disparities and inequalities which are evident in areas of multiple deprivation, where education outcomes are significantly below Northern Ireland averages. Whilst there is a clear correlation between education and employment outcomes, the problem runs deeper. The Northern Ireland Index of Multiple Deprivation (NIMDM) demonstrates that poor education outcomes are also correlated with (but not necessarily the cause of):

- high rates of health deprivation and disability;
- poor living environments; and
- a prevalence of crime and disorder.

As has been noted above, connecting individuals in this cohort with opportunities to develop their skills is key. Collaboration across government, including with local government, will be central to developing cohesive approaches to education, skills and economic policy and supporting individuals to upskill, reskill and where necessary, reconnect with the labour market.

Creating a Culture of Lifelong Learning

'Addressing Skills Imbalances' over the next decade is fundamental to this Strategy. It must be acknowledged, however, that the vast majority of the 2030 workforce has already completed compulsory education. Making a difference in the skills of our working age population will not be achieved unless real opportunities are afforded to individuals to upskill / reskill throughout their working lives.

Participation in lifelong learning in Northern Ireland is comparatively low. We fall behind counterparts in the UK and Ireland, and participation is lower than the OECD average. Evidence from the OECD's 'Skills Strategy Northern Ireland' highlights the importance of early education in setting learning habits on the right path. Many of the actions outlined under the 'Addressing Skills Imbalances' heading will be fundamental in achieving long term change in this regard, but the need for more urgent action is present now.

As part of our response to the COVID-19 pandemic, several initiatives to support our working age population have already been brought forward, for example: investment in apprenticeships; a Flexible Skills Fund to support upskilling and reskilling; and proposals for investment in leadership and management training. These are all vital measures which we want to refine and build on over the lifetime of the new Skills Strategy.

In tandem, there is a longer term, more strategic challenge to consider. We need to develop a comprehensive understanding of why participation in lifelong learning lags behind counterparts and put in place the appropriate measures to make a lasting difference. This will be done under the auspices of Northern Ireland's first ever 'Lifelong Learning Action Plan', co-designed with business, education institutions and trades unions, with the clear intent of driving a 10x Economy.

Enhancing Digital Skills, Developing Our Digital Spine

Keeping pace with technological change is one of the greatest challenges facing our skills system, as the pace of technological advancement outstrips the speed with which we are responding. Developing a skills system equipped to cope with this is essential, if Northern Ireland is to reach its competitive potential. In one sense, this is absolutely about supporting our key strategic clusters, all of which are being driven by technological change and hold untold innovative potential, if we can develop and harness the skills which will turn potential into commercial value.

The societal importance of improving digital skills should not be overlooked, however. As the COVID-19 pandemic has illustrated, access to, and the ability to use digital technology is increasingly fundamental to our capacity to function as an economy and a society. Whilst we want to supply the skills required to bolster Northern Ireland's key strategic clusters, we must also recognise that some level of digital competence is increasingly essential to effective engagement in almost all work environments and a key aspect of an individual's capacity to actively participate in modern life.

For this reason, it is proposed that a *'Digital Skills Action Plan'* is developed to support the objectives of our economic vision: driving our decade of innovation and providing everyone with the opportunity to participate in our 10x Economy. Drawing again on the co-design principles we have set out, an expert panel will be appointed to consider the changing digital skills needs of our economy and identify the substantive changes required in digital education, to meet the current and emerging needs of our labour market and society.

Policy Enablers

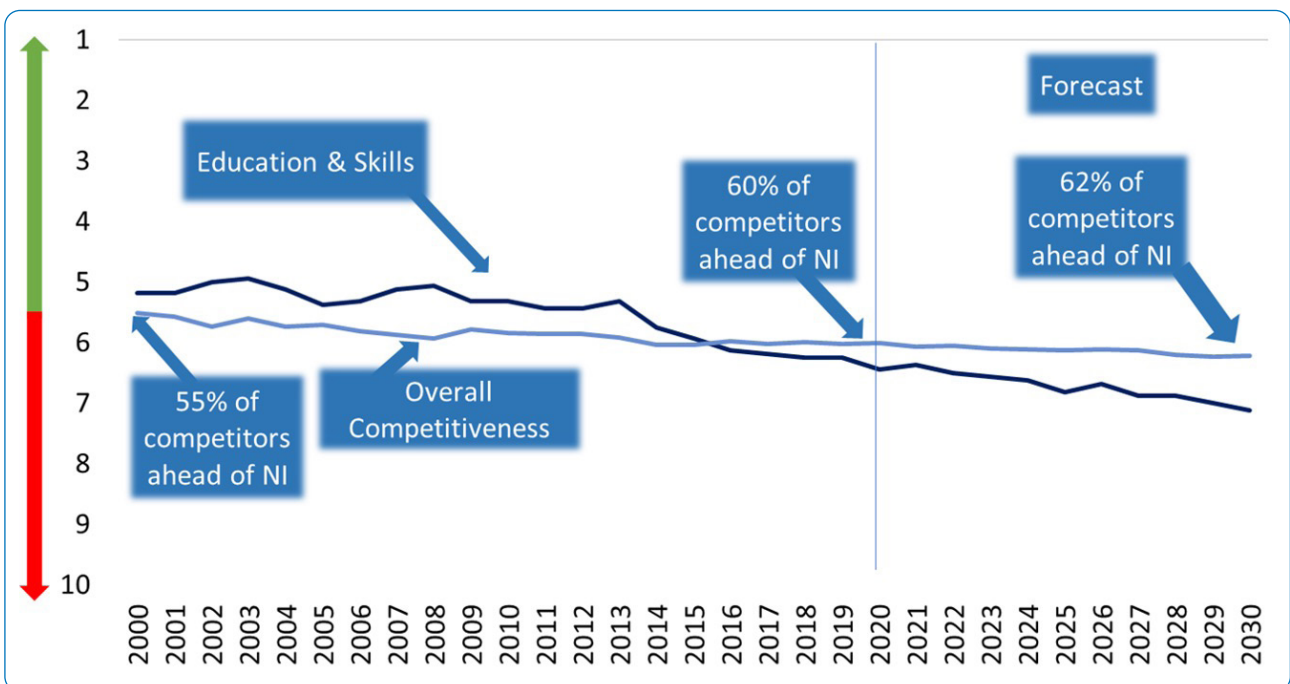
The draft Strategy breaks our policy enablers down into three major areas:

- Developing better policy cohesion
- Building stronger relationships
- Investment in the Skills System

Taken together, these enablers are about improving the governance of the skills system. It means working across government to build more cohesive skills policy solutions, which will drive our objectives of positive economic, environmental and societal outcomes. It means building strong relationships with external stakeholders in business, the education sector and trades unions to co-design skills solutions which support better jobs and better wages for all our people. It is about delivering increased innovation and driving Northern Ireland's position as an elite small advanced economy, through investment in a skills system which enables all our people to reach their potential.

The key action underpinning these enablers will be the development of a new Northern Ireland Skills Council. Whilst the terms of reference and specific make-up of the Council is yet to be agreed, the concept draws on international best practice to establish a forum with ministerial leadership and representation from senior figures in key government departments, business, education and trades unions. Its purpose will be to drive a more collaborative approach to policy, ensuring the skills system is responsive to economic need, strengthened through engagement with employers and employees and that the central importance of our skills system is recognised throughout economic and social policy, as we aim to address the issues which will make a real difference in people’s lives.

Finally, we need to prioritise investment in the skills system. Over the last decade, investment in education and skills has fallen significantly. A recent assessment of Northern Ireland’s competitiveness by the Ulster University’s Economic Policy Centre shows how this has affected our competitive performance, with several small advanced economies now outperforming Northern Ireland³.



Source: Ulster University Economic Policy Centre

3 In 2010, economies such as Finland, Sweden, Norway, Denmark, Netherlands, Estonia, Germany, France, Austria, Ireland, Iceland & Belgium were outperforming NI. In 2020 the Czech Republic, Poland, Slovenia, Lithuania, Latvia, Portugal, Cyprus and Luxembourg can be added to that list.

In 2020/21, the Minister for the Economy secured £50 million of additional funding for skills initiatives as part of our initial Covid-19 response. This was supplemented by a further £50 million to support our economic recovery in 2021/22. This investment has been allocated to a range of skills initiatives, including the expansion of apprenticeship opportunities, additional student support and new upskilling measures designed to support those whose employment had been affected by the pandemic. This additional investment has been widely welcomed, however, achieving the objectives as set out in this consultation will require sustained, strategic investment across all elements of our skills system in Northern Ireland.

Not only do we need to reprioritise our investment in education and skills, but we need a commitment to introduce the multi-year budgets which will underpin strategic planning and the transformational change in our skills system that will be required to deliver our 10x Economy.

Chapter 1: Introduction

The Executive is committed to delivering a Programme for Government (PfG) based on improving the well-being of all. This objective has provided the guiding principle in the development of this consultation. We need to build on Northern Ireland's reputation for excellence in providing the skills which investors are looking for and supporting our indigenous companies, through the high level skills that can boost innovation, entrepreneurship and enhance Northern Ireland's global competitiveness in a decade of innovation. At the same time, we must develop a skills system which addresses growing inequalities, providing everyone with the access to the education and training opportunities that will enable them to fulfil their potential.

In line with comparable economies across the globe, the demand for skills is changing rapidly, as technology revolutionises how businesses and labour markets function. The last Skills Strategy for Northern Ireland, '*Success through Skills – Transforming Futures*'⁴ set out how an increasingly 'skills hungry' labour market would demand increasingly higher levels of qualifications. That has proven to be the case. An evaluation of '*Success through Skills*'⁵ notes the substantial progress that has been made on delivering against these demands.

The Skills Barometer for Northern Ireland⁶, first published in 2015, defined a series of challenges that we must overcome, to ensure we continue to make progress on meeting the future demands of our labour market. Firstly, it forecasts fewer and fewer job opportunities for individuals with low or no qualifications⁷. Secondly, it highlights that the most significant skills undersupply will be in mid-level qualifications. It is a priority, therefore, to support as many people as possible to participate and achieve qualifications at level 3 and beyond. Thirdly, the Skills Barometer suggests the overall number of graduate and post-graduate qualifications is marginally undersupplied. The greatest challenge at this level, however, is to rebalance the field of study of the qualifications being delivered, with continued and growing emphasis on qualifications in the core sciences (physics, chemistry and biology), mathematics, computer science and engineering and technology.

Working collaboratively, across Government and with all our stakeholders, to address these challenges will afford us the greatest opportunity to deliver on the potential of our economy. By connecting individuals with opportunities, we can tackle inequality, drive economic growth and ensure everyone in Northern Ireland has the opportunity to contribute to, and benefit from, growing economic prosperity.

4 Department for Employment and Learning (2011) *Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/publications/success-through-skills-transforming-futures-0>

5 DfE (2020) *Evaluation of Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/publications/evaluation-success-through-skills-transforming-futures>

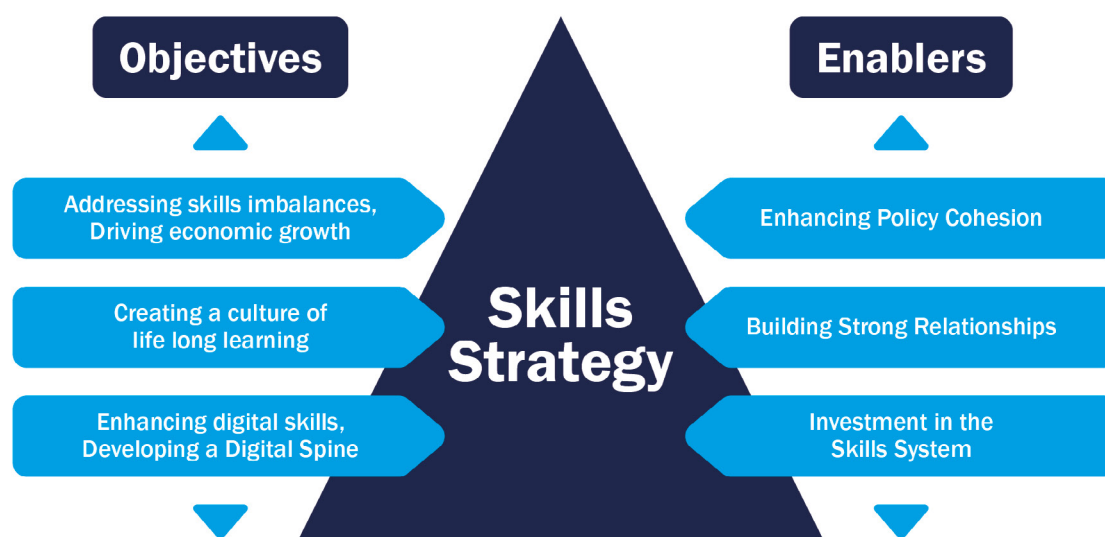
6 DfE (2019) *The Skills Barometer for Northern Ireland*. Available from: <https://www.economy-ni.gov.uk/publications/northern-ireland-skills-barometer-2019-update>

7 The Skills Barometer breaks attainment levels down to: low skills (level 2 and below, or 5 GCSEs including English and Maths) mid-level skills (levels 3 – 5, or A-Level and equivalent to Higher National Diploma and equivalent) and high-level skills (levels 6 – 8, degree and postgraduate qualifications).

This Consultation Document sets out the Northern Ireland Executive’s strategic priorities for the development of Northern Ireland’s skills system over the next ten years (2021 – 2030). It has been developed after a considerable programme of research and stakeholder engagement. It draws on existing evidence, including the ‘Skills Barometer for Northern Ireland’⁸, the ‘Employer Skills Survey’⁹ and recent reports from the Institute of Public Policy Research (IPPR) Scotland¹⁰ and Ulster University Economic Policy Centre (UUEPC)¹¹. In addition, two new research projects were commissioned to underpin the Strategy’s development and provide an international perspective on best practice, as we aim to develop a modern, globally competitive skills system: ‘The Strategic Integration of Skills and Innovation Policy in Northern Ireland’¹² and ‘OECD Skills Strategy Northern Ireland: Assessment and Recommendations’¹³

Whilst this consultation document sets out our strategic direction and the high level actions we will take, it is not intended as the final say in a 10 year plan. Feedback from stakeholders in Northern Ireland has consistently emphasised the need for a more agile, responsive approach to skills development. The rationale for such an approach has been laid bare by the rapid and devastating impact COVID-19 has had on our economy.

The new Skills Strategy will include a 2-5-10 year implementation plan, developed in close collaboration with key stakeholders and designed to adapt to change, increase transparency and cultivate a more collaborative approach to economic and social development.



8 DEL/DfE/UUEPC (2015, 2017, 2019) *Northern Ireland Skills Barometer: Skills in Demand*. All available from: <https://www.economy-ni.gov.uk/articles/skills-and-employment>

9 Department for Education (UK) (2017) *Employer Skills Survey 2017: Northern Ireland Toolkit*. Available from: <https://www.gov.uk/government/publications/employer-skills-survey-2017-northern-ireland-toolkit>

10 IPPR (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/research/publications/the-skills-system-in-northern-ireland>

11 Ulster University Economic Policy Centre (forthcoming) *Automation and the NI Economy: Summary of Research and Findings*.

12 Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation Policy in Northern Ireland*. Available from: <https://www.economy-ni.gov.uk/publications/strategic-integration-skills-and-innovation-policy-northern-ireland>

13 OECD/DfE (2020) *OECD Skills Strategy Northern Ireland: Assessment and Recommendations*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

Chapter 2: Strategic Context

This consultation document is launched at a time of considerable uncertainty in Northern Ireland and across the globe. Technology, demographics and global politics are rapidly changing how advanced economies, as well as the labour markets which support them, function; a phenomenon which has become characterised as *'The Fourth Industrial Revolution'*. The COVID-19 pandemic has arguably accelerated the pace of the fourth industrial revolution; it has caused devastation to many families and businesses but, as we emerge, it may also be a catalyst for long-term change in our society¹⁴, an opportunity for generational change.

As a ten-year Strategy, the proposals included in this document are intended to address long-term structural challenges which have constrained our skills system, economy and society. We want to learn from the evaluation of the last Skills Strategy¹⁵ by building closer relationships across government and with our stakeholders, to ensure we implement a programme of change which remains resilient in the face of expected and unexpected change. This Chapter sets out some of the key strategic issues facing our skills system, setting the context for the programme of change under consultation.

COVID-19

COVID-19 has had a dramatic impact on the local labour market. At its peak, almost 140,000 employees were on furlough¹⁶, equivalent to roughly 15% of all employees. Redundancies have been experienced throughout the pandemic, with almost 5,800 confirmed redundancies in the year to March 2021¹⁷, the highest since 2001. Furthermore, the number of people claiming unemployment benefits almost doubled in the first full month of the spring 2020 lockdown (90% increase from March to April 2020) and still remains at a level last seen in the aftermath of the 2008 financial crisis¹⁸.

14 The Economist (2020) *Will Coronavirus Accelerate the Fourth Industrial Revolution*. Available from: <https://eiu Perspectives.economist.com/financial-services/why-coronavirus-will-accelerate-fourth-industrial-revolution>

15 DfE (2020) *Evaluation of Success through Skills*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Strategy-Evaluation.pdf>

16 HMRC (2020) *Coronavirus Job Retention Scheme Statistics*. Available from: [Coronavirus Job Retention Scheme statistics: August 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/coronavirus-job-retention-scheme-statistics-august-2020)

17 NISRA (2021) *Labour Market and Social Welfare Statistics*. Available from: [Redundancies | Northern Ireland Statistics and Research Agency \(nisra.gov.uk\)](https://www.nisra.gov.uk/statistics/redundancies-northern-ireland)

18 NOMIS Official Labour Market Statistics (2021) *Seasonally adjusted claimant count*. Available from: [Dataset Selection - Query - Nomis - Official Labour Market Statistics \(nomisweb.co.uk\)](https://nomisweb.co.uk/dataset-selection-query-nomis-official-labour-market-statistics)

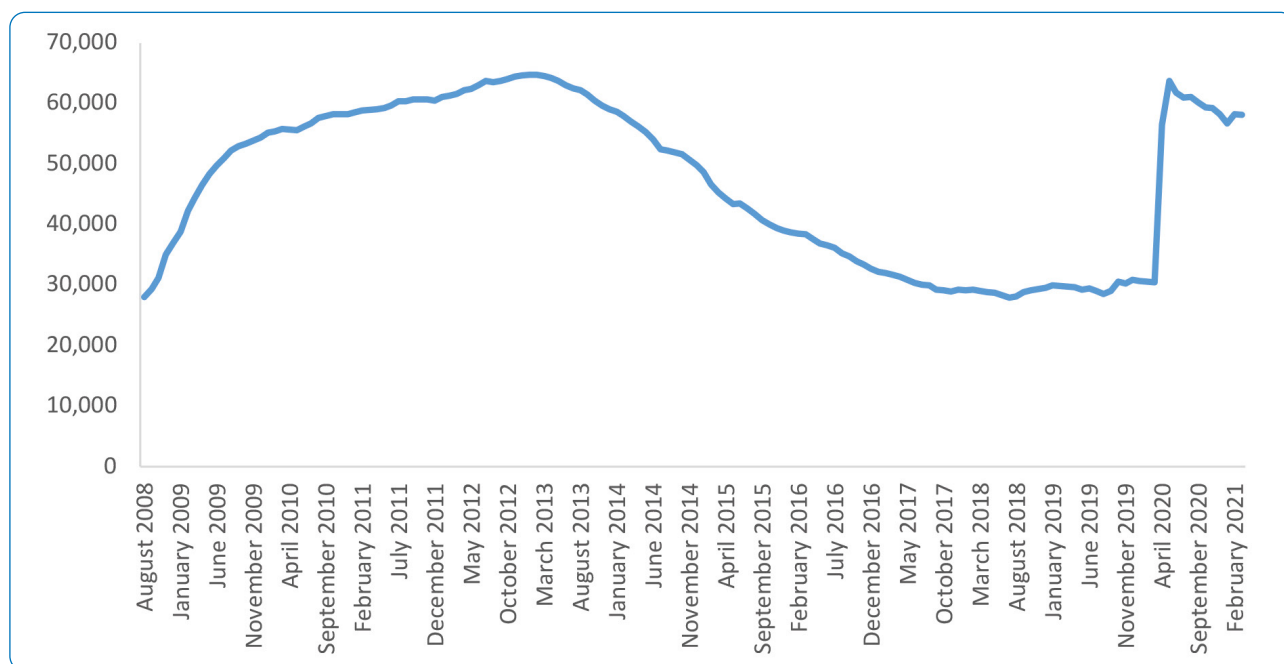


Figure 1: Total number of people claiming unemployment benefits, August 2008 - February 2021

Source: Claimant Count, NomisWeb

All independent economic commentators are forecasting a return to economic growth in 2021, ranging from 4.0% to 5.9%. While the furlough scheme has helped to reduce unemployment, it is expected that as this scheme is phased out there will be an increase in unemployment. Danske Bank¹⁹ has predicted that the unemployment rate will rise, averaging 5.0% in 2021 and 5.2% in 2022, while EY²⁰ forecasts local jobs will not regain their Q4 2019 peak until 2024.

With almost 100,000 employees still on furlough (March 2021)²¹, there is evidence suggesting greater impacts on certain types of employees, including those younger, those lower skilled and workers in small-to-medium sized enterprises.

This can be at least partly attributed to the sectors that have been most vulnerable to lockdowns such as hospitality and retail, which traditionally attract younger workers, demand lower skilled workers and pay less on average. As of March 2021, almost half of all employees furloughed in Northern Ireland work either in the hospitality or wholesale and retail sectors, despite these sectors only accounting for 21% of the workforce²².

19 Danske Bank (2021) Northern Ireland Quarterly Sectoral Forecasts. Available from: [Danske Bank Northern Ireland Quarterly Sectoral Forecasts 2021 Q1](#)

20 Ernst & Young (2021) Economic Eye Spring 2021 Forecast. Available from: [ey-economic-eye-report-spring2021.pdf](#)

21 HMRC (2021) Coronavirus Job Retention Scheme Statistics. Available from: [Coronavirus Job Retention Scheme statistics: 6 May 2021 - GOV.UK \(www.gov.uk\)](#)

22 ONS (2021) Workforce jobs by region and industry. Available from: [JOBS05: Workforce jobs by region and industry - Office for National Statistics \(ons.gov.uk\)](#)

A demographic assessment of sectoral employment by the Ulster University Economic Policy Centre highlighted a number of concerns, including increased vulnerability of women, individuals with long-term health conditions and people in flexible forms of employment. These are areas where the Skills Strategy must support recovery. In two further demographics, however, the onus on the skills system is particularly apparent: the impact on young people and the impact on those with low or no qualifications.

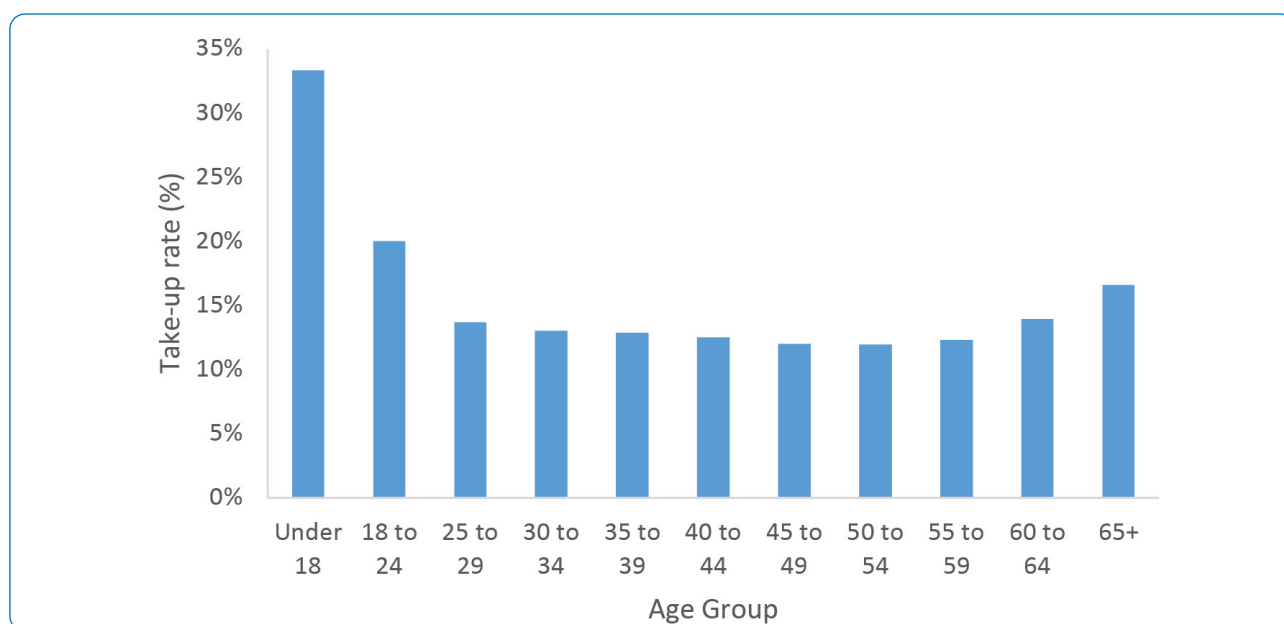
Young People

The worst affected sectors employ proportionally more people aged under 25 on average, meaning young people’s exposure to the economic impact of the crisis is considerable.

Over the past year, the largest drop in employment was for those in the 16-24 age group, declining by 27,000 in the year to December-February 2021²³. The increase in unemployment in the 16-24 age group represented 69% of the increase in total unemployment over the past year.

In a similar vein, when broken down by age, the economic inactivity rate in the 16-24 age group rose by 11.1pps to 52.8%. This contrasts with the 35-49 age group, where the economic inactivity rate decreased by 0.7pps over the past year.

The disproportionate impact on young people is also reflected by take-up of the government furlough scheme, where higher take-up rates for those aged under 25 have existed throughout the pandemic.



Note: Data refers to UK position as of 31 March 2021

Figure 2: Take-up rate of employments by single age

Source: HMRC, CJRS Statistics

23 NISRA (2021) *Labour Force Survey*. Available from: [Labour Force Survey tables – April 2021 | Northern Ireland Statistics and Research Agency \(nisra.gov.uk\)](#)

Given that the furlough scheme is set to end in September 2021, more young people are threatened with unemployment due to their higher reliance on this scheme. Added to the average of 25,000²⁴ leavers from education into the labour market each year, positive growth in the economy will be crucial for young people over the coming years.

Highest Qualification Achieved

There is stark disparity in the proportion of workers furloughed or made redundant when the highest qualification achieved is taken into account. Research from the Ulster University Economic Policy Centre²⁵ indicated that all categories of qualification below an undergraduate degree qualification (NQF L6) have experienced a fall in employment. Conversely, there has been an increase in employment amongst people with undergraduate degrees (NQF L6) and postgraduate qualifications (NQF L7+).

The reasons for a disproportionate impact on the low-skilled are similar to those impacting young people. Low-skilled workers are traditionally found in retail and hospitality and these sectors on average have been more greatly impacted, when compared with employees in ICT and finance which, on average, have workers with higher level qualifications. Provisional UK furlough data for March 2021 showed a substantially higher take-up rate amongst hospitality (55%); other service activities (39%) and wholesale and retail (19%) compared with professional services (11%), ICT (8%) and finance (3%).

The Fourth Industrial Revolution

The Fourth Industrial Revolution is changing how labour markets function across advanced economies. The technological revolution is the key and underpinning factor, driving rapid change in how we do business. But it also plays a major role in the context of demographic and geopolitical change.

The Technological Revolution

Digitisation, robotics, artificial intelligence and virtual reality are revolutionising labour markets across advanced economies. Manpower Group's Report notes that the technology already exists to automate 45% of the tasks people are paid to do. By 2025, the World Economic Forum estimates that machines will take a higher share of the division of labour than humans, as measured by hours worked²⁶.

24 Ulster University Economic Policy Centre (June 2020) *Labour market implications of COVID-19*. Available here: [COVID-19-Worker-characteristics_08.06.2020.pdf \(ulster.ac.uk\)](https://www.ulster.ac.uk/economic-policy-centre/research/COVID-19-Worker-characteristics_08.06.2020.pdf)

25 Ulster University Economic Policy Centre (March 2021) *NI Labour Market Briefing March 2021*. Available here: [NI-Labour-Market-Briefing_FINAL.pdf \(ulster.ac.uk\)](https://www.ulster.ac.uk/economic-policy-centre/research/NI-Labour-Market-Briefing_FINAL.pdf)

26 World Economic Forum (2018) *The Future of Jobs*. Available from: [http://reports.weforum.org/future-of-jobs-2018/shareable-infographics/](https://reports.weforum.org/future-of-jobs-2018/shareable-infographics/)

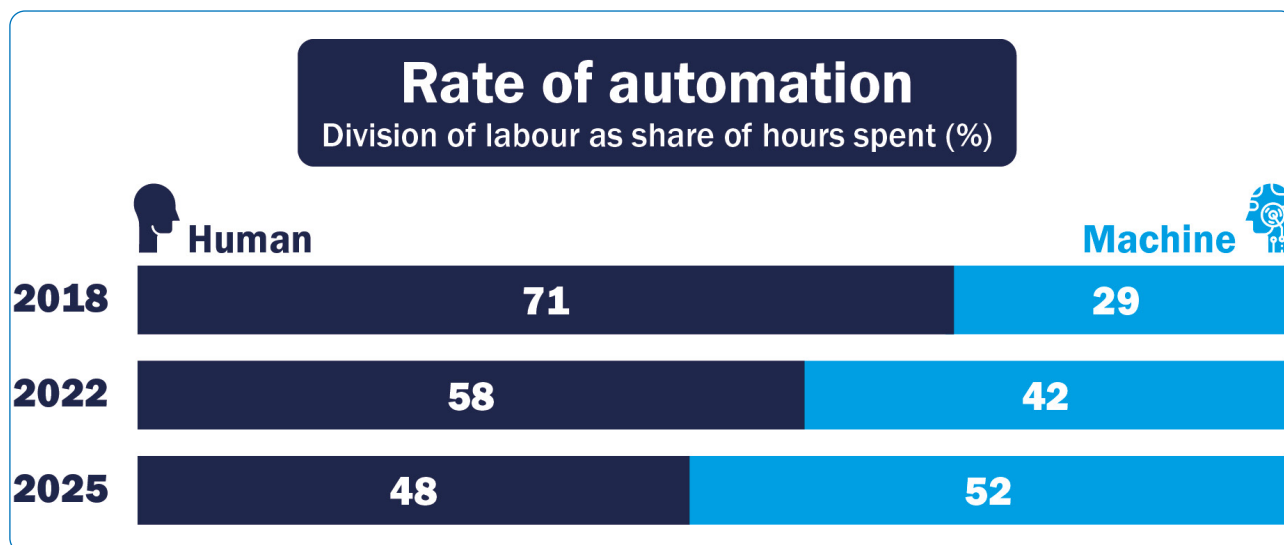


Figure 4: Division of Labour as Share of Hours Spent

Evidence of such change is apparent in our everyday lives - how we shop, how we bank, how we communicate – but it is also apparent when we look at how the labour market has changed. The Manpower Group illustrates how the share of jobs in the manufacturing sector has fallen across advanced economies, as service sectors have grown; a point also noted by McKinsey²⁷.

These sources do not anticipate a fall in the total number of jobs. They do suggest, however, that advanced economies will gravitate towards service sector growth and fewer, more highly skilled jobs in the manufacturing sector, focused on R&D and innovation-led activity. Jobs typically undertaken by those with lower skills are increasingly vulnerable to automation.

Research, carried out by the Ulster University’s Economic Policy Centre²⁸, demonstrates the relevance of this perspective to our region. At the macro level, it anticipates an overall increase in the number of employment opportunities, productivity growth and improved living standards. At the micro level, however, the greatest impact is expected to be on low skilled workers, where employment and earnings potential is likely to be eroded further.

Technology and Globalisation

In recent decades, communication and logistics technologies have led to rapid globalisation, from which Western economies have benefited significantly²⁹. The playing field is levelling, however. Several emerging economies are offering growing populations, with higher standards of education.

27 McKinsey & Company (2012) *Manufacturing the Future: The Next Era of Global Growth and Innovation*. Available from: https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Operations/Our%20Insights/The%20future%20of%20manufacturing/MGI_Manufacturing%20the%20future_Executive%20summary_Nov%202012.ashx

28 Ulster University Economic Policy Centre (2019) *Automation and the NI Economy: Summary of Research and Findings*. Unpublished

29 Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation in Northern Ireland: An International Small Economy Perspective*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/strategic-integration-of-skills-full-report.pdf>

This provides businesses with greater choice in where they invest in their operations. The world is an increasingly competitive place, but businesses operating in knowledge-intensive sectors continue to deliver the greatest returns on investment in advanced economies³⁰. The availability of skilled local talent has been identified as the key determinant in a company's investment decisions, followed by the cost of labour³¹.

The primary argument made by Landfall Strategy Group³² is, that as a small advanced economy, our future prosperity relies on our ability to identify and invest in the sectors where we are, and can continue to be, globally competitive. In an increasingly globalised world, a small economy must offer unique expertise and products to the global market. Our comparatively limited human and capital resources prohibit our potential to compete with several large advanced economies in a broad range of sectors.

The development of specific, specialist skills, through globally recognised research institutions which work collaboratively with NI-based businesses to drive global competitiveness, is key to our economic success, our decade of innovation. In our skills system, this means at the highest levels of education, we must enhance our focus on research-orientated qualifications, aligned to the needs of our most competitive, exporting businesses.

It must be acknowledged that only a small proportion of the population will work at this level. As these sectors develop, however, they bring with them a broad range of sector-specific graduate and sub-degree level jobs. This is an area where we need to strengthen our skills system, boosting the supply of mid-level qualifications and producing more graduates with the STEM qualifications crucial to knowledge-intensive sectors of the economy.

Demographic Change

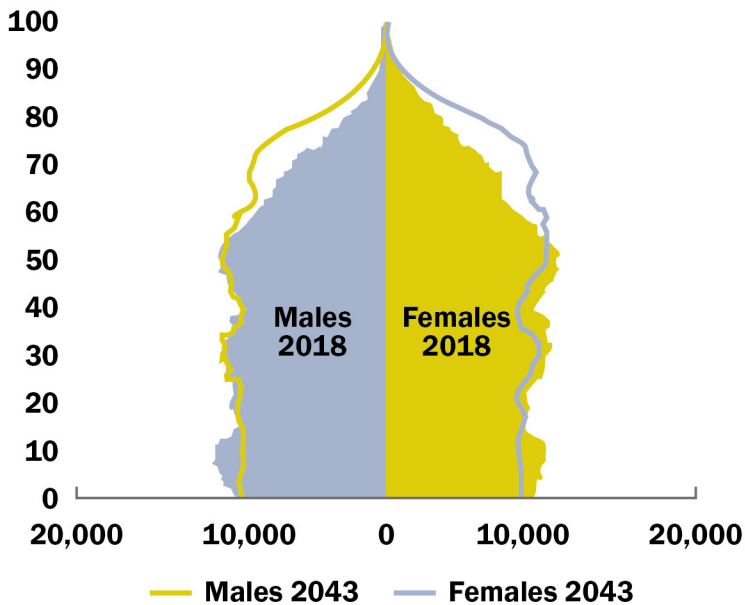
These technological changes are taking place in the context of aging populations. Consequently, shrinking proportions of the population are actively engaged in the labour market and the competition for skilled workers is increasing. The Manpower Group argues that this has led to the emergence of a two-tiered labour market, where those who have 'in-demand' skills have greater flexibility to determine how, where and when they work, whilst those without face an uncertain future³³.

30 Ibid

31 Ibid

32 Ibid

33 The Manpower Group (2017) *A Skills Revolution: From Consumers of Work to Builders of Talent*. Available from: https://www.manpowergroup.com/wcm/connect/d05472a8-cf68-42fb-90b0-bed9d82bb08b/MG_2017_Future_Forces_Skills_Revolution_lo+%281%29.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE-d05472a8-cf68-42fb-90b0-bed9d82bb08b-mJhLrg8



THE AGEING OF THE POPULATION IS PROJECTED TO CONTINUE

The population of Northern Ireland is projected to become older. The population pyramid shows that by mid-2043 the older age population (65 and over) is projected to increase. The median age is projected to increase from 38.7 to 44.0 years between 2018 and 2043.

As the OECD indicates³⁴, we can no longer rely on the traditional career pathway of education – work – retirement. As the labour market changes rapidly, the ‘life cycle’ of skills is shorter than ever before. Individuals must access learning at several stages throughout their lives, to ensure their skills remain relevant in an ever-changing world.

The Fourth Industrial Revolution exposes older, and lower skilled workers, to increased risk of job displacement, through the impact of automation³⁵. If we are to address the emergence, or deepening, of a two-tiered labour market and the increasing inequality that will come with it, it is fundamental that more young people are given access to the skills that will enable them to compete in the emerging labour market and that lifelong learning becomes a key feature of our education system and society at large³⁶, to ensure that individuals can continue to adapt. Business and government must collaborate, to ensure this is relevant and accessible.

Climate Change

As the ‘*Consultation on Policy Options for the new Energy Strategy*’³⁷ highlights, Northern Ireland has a significant role to play in delivering against the UK’s net zero carbon emissions by 2050 target. As our economy adapts to climate change and net zero goals, there will be a substantial impact on our labour market and skills system.

34 OECD (2020) *OECD Skills Strategy Northern Ireland*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

35 Ibid

36 OECD (2019) *Employment Outlook 2019: The Future of Work*. Available from: <https://www.oecd-ilibrary.org/sites/9ee00155-en/1/2/6/index.html?itemId=/content/publication/9ee00155-en&csp=b4640e1ebac05eb1ce93dde646204a88&itemIGO=oecd&itemContentType=book>

37 DfE (2021) *Consultation on Policy Options for the new Energy Strategy for Northern Ireland*. Available from: <https://www.economy-ni.gov.uk/articles/northern-ireland-energy-strategy-2050>

We must develop the knowledge which will drive innovation in the search for low carbon solutions, and the absorptive capacity for our businesses to harness the potential of new ideas emerging across the globe. This not only benefits Northern Ireland, there is a global focus on carbon reduction, meaning innovation in Northern Ireland will have tradable value across the globe. For these reasons, ‘zero carbon tech’ has already been identified as an enabling technology for Northern Ireland, a sector where our strong manufacturing base can continue to evolve in global markets.

Profile

In 2019, there were an estimated 1.9 million people in Northern Ireland. Around one-fifth (21%) were under the age of 16, so were of compulsory education age, with a further 7% aged 16 to 21. Northern Ireland has an aging population, with 21% of the population estimated to be 65 years old and over by 2030.

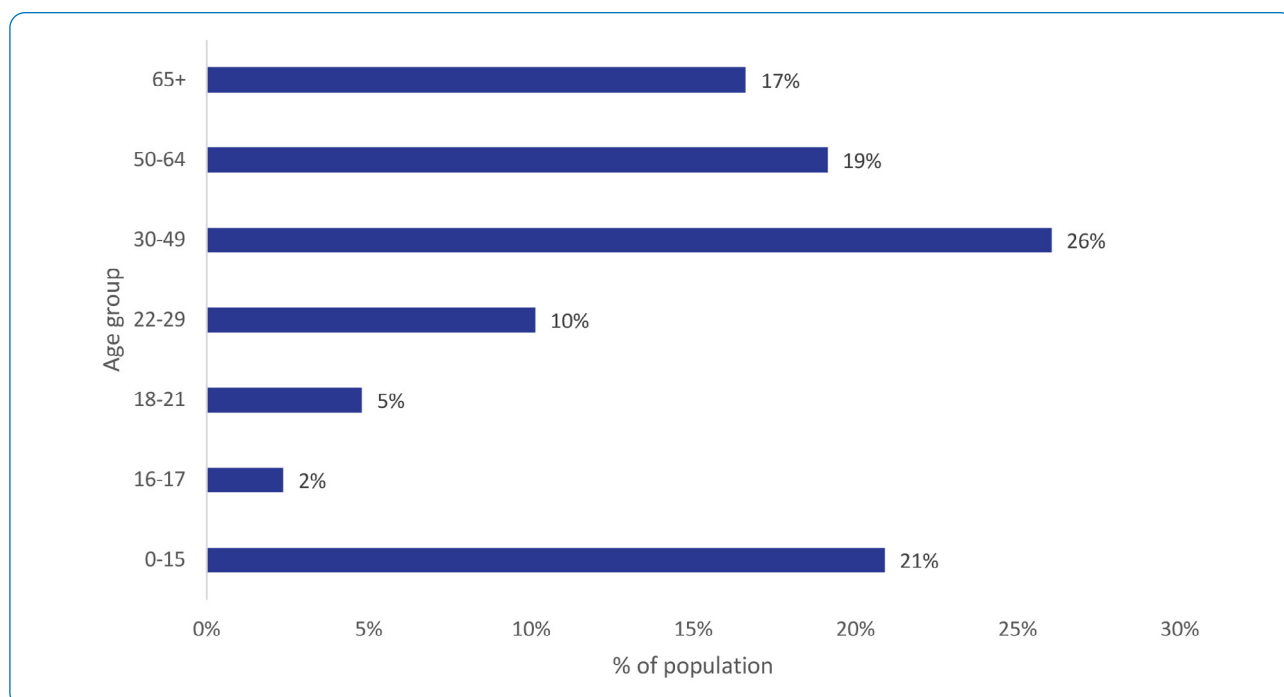


Figure 6: Mid-Year Population Estimates, 2019³⁸

The working age population (aged 16 to 64) was estimated to be 1.1 million in Northern Ireland (Q4 2020). It is estimated that 33% hold degree or higher qualifications, whilst 12% hold no qualifications³⁹.

38 NISRA (2020) 2019 Mid-Year Population Estimates for Northern Ireland. Available from: <https://www.nisra.gov.uk/publications/2019-mid-year-population-estimates-northern-ireland>

39 NISRA (2020, Q2) Labour Force Survey. Available from: <https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/labour-force-survey>

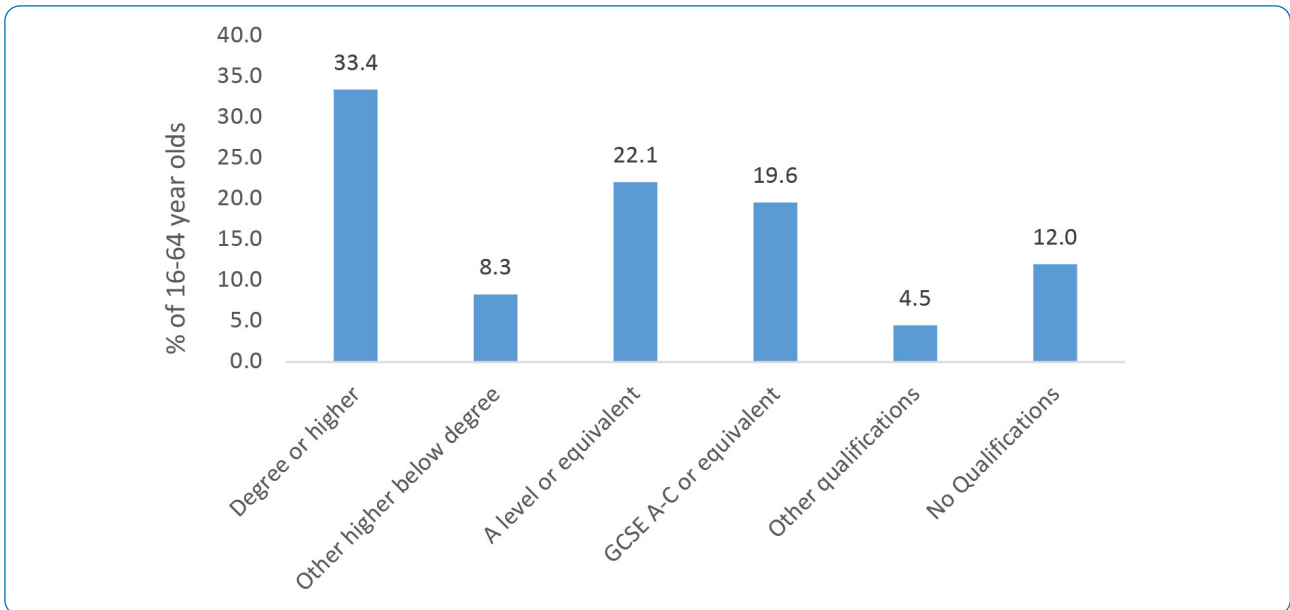


Figure 7: Qualifications of working age population, Q4 2020

Source: NISRA

There has been an increasing proportion of school leavers achieving at least 5 GCSEs A* to C, including English and Maths. This has risen to 70.8% in 2018/19, a 7.3 percentage point increase in five years⁴⁰.

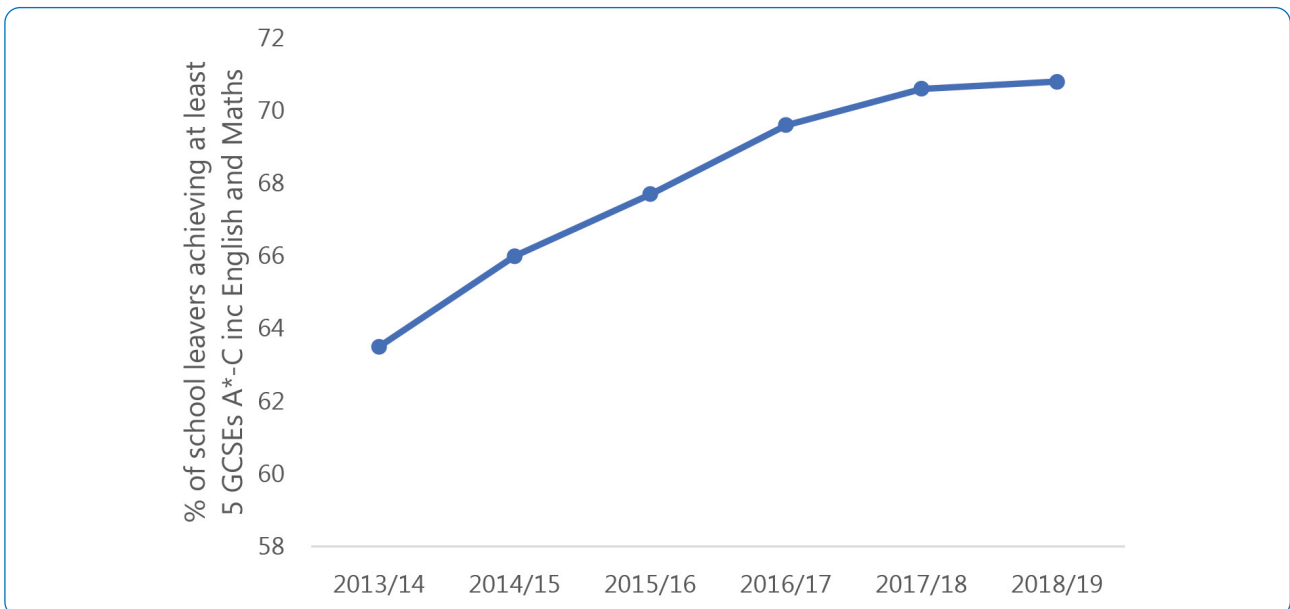


Figure 8: School Leavers Achieving 5 GCSEs A* - C

40 DE (2020) *Destination and Qualifications of School Leavers 2018/19*. Available from: <https://www.education-ni.gov.uk/publications/school-leavers-201819-statistical-bulletin>

There are variations, with lower achievement rates for those entitled to free school meals (50%). The point should not be missed that this reflects a trend of significant improvement over the last five years. Tackling underachievement remains a primary focus of the Department of Education's work.

As for destinations of school leavers⁴¹, over two-fifths (42%) go on to further study in Institutions of Higher Education; one-third (33%) go on to study in Institutions of Further Education; 10% go into employment; 11% go on to training; 2% are unemployed, with 2% of students going to unknown destinations.

In 2018/19, there were an estimated 57,000 individuals studying towards regulated qualifications in Further Education Colleges⁴². Over two-fifths (43%) of students were studying at level 2 and below, 40% were at level 3 with 17% at level 4 and above. There were 25,000 individuals enrolled in Broad STEM subjects. Just over half (50.2%) of FE College leavers who completed a qualification at Level 3 or below were in employment six months after achieving their 2018/19 qualification.

In 2019/20, almost 16,000 qualifications were awarded from Northern Ireland's Higher Education Institutions⁴³. Over half (57%) were first degrees, over one-third (35%) were postgraduate awards, with 8% as other undergraduate (for example, Higher National Degrees). For those that graduated in 2017/18⁴⁴, after 18 months 71% were in employment, 12% were in employment and further study, 8% were in further study, 3% were unemployed and 5% were other.

The continued progression in achievements by school leavers, combined with 86% continuing in education and training, means that over time there will be an uplift in the qualification profile of the workforce, especially as those entering the workforce are more highly qualified, compared with those leaving. Around 80% of today's workforce, however, will still be of working age in 2030, so the skills profile required to deliver on our economic potential will not be delivered by focusing on leavers from education alone.

As demonstrated in the following table - based on NISRA population projections⁴⁵ - the population will continue to age over the next decade. At the same time, however, it will also see a 'spike' in the population engaging in the later stages of compulsory and post-compulsory education. Our skills system must be equipped with the resource and capacity to cope.

41 Ibid

42 Department for the Economy (2020) *Further Education College Statistics 2018/19*. Available from: <https://www.economy-ni.gov.uk/publications/further-education-activity-northern-ireland-201819>

43 Department for the Economy (2020) *Qualifications gained at UK Higher Education Institutions: Northern Ireland Analysis 2018/19*. Available from: <https://www.economy-ni.gov.uk/publications/qualifications-gained-uk-higher-education-institutions-northern-ireland-analysis-201819>

44 HESA (2020) *Graduate Outcomes Data (2017/18)*. Available from: <https://www.hesa.ac.uk/data-and-analysis/graduates>

45 Ibid

Age	2020	%	2025	%	2030	%
0-15	396,845	21%	388,056	20%	368,093	19%
16-17	45,394	2%	53,095	3%	52,034	3%
18-21	88,999	5%	92,310	5%	102,705	5%
22-29	189,586	10%	176,108	9%	175,845	9%
30-49	492,664	26%	493,467	25%	490,811	25%
50-64	367,717	19%	376,224	19%	364,727	19%
65+	320,651	17%	358,376	18%	404,775	21%

Figure 9: National Population Projections, 2018

The Programme for Government (PfG), our Economic Vision and the Skills Strategy for Northern Ireland.

A broad base of good educational achievement and skills is fundamental to our society and economy.

The Skills Strategy will be an important contributor to a number of positive societal and economic outcomes – for example, it will help people obtain better jobs and contribute to them enjoying good mental and physical health; it will support the development of a fair, equal and inclusive society; and it will encourage and support people to fulfil their potential.

From an economic perspective, IPPR⁴⁶ and Landfall Strategy Group⁴⁷ underline the necessity of a coordinated approach to economic and skills policy, to enhance the global competitiveness of our most productive, highest value added sectors. This is particularly important in a small economy, such as Northern Ireland, where human and financial resources are limited.

In an outcomes-focused approach, however, we must also be cognisant that poor educational outcomes are linked to income inequality, higher levels of criminality, reduced social and political participation and adverse effects on individuals' perceptions of health, wellbeing and life-satisfaction. As noted above, pre-existing inequalities in Northern Ireland's economy and labour market will be magnified by the COVID-19 pandemic. Just as mutually reinforcing economic and skills policies are essential to growth and prosperity, collaborative approaches to employability and community development are crucial.

46 IPPR Scotland (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/research/publications/the-skills-system-in-northern-ireland>

47 Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation Policy*. Available from: <https://www.economy-ni.gov.uk/publications/strategic-integration-skills-and-innovation-policy-northern-ireland>

In practice, the Skills Strategy must be directly aligned to the PfG aim of improving wellbeing for all by supporting efforts to tackle inequalities, providing low skilled, low paid, or unemployed individuals with the opportunities they need to work in ‘better jobs’, whilst concurrently focusing on provision of the skills and qualifications needed to drive economic growth and competitiveness in the sectors where Northern Ireland has real global potential.

Skills and Economic Policy

Our 10x Economy document⁴⁸, identifies ‘talent’ as one of five key pillars of delivering success:

“Inspiring and preparing a future generation of workers that can respond flexibly to future skills requirements. Ensuring everyone across NI has opportunities to thrive.”

Historically, the Northern Ireland economy has been characterised by comparatively low pay, low productivity, limited opportunities for career progression, high levels of economic inactivity and low levels of innovation. These are challenges that must be addressed to improve our competitiveness.

There are significant structural weaknesses in the Northern Ireland economy. Employment in Northern Ireland is heavily concentrated in sectors which pay low wages and perform poorly from a productivity perspective⁴⁹. The NI Executive’s economic policy has long defined the solution as investment in high paying, high value added sectors, which can drive sustainable economic growth - an approach supported by research on international best practice⁵⁰.

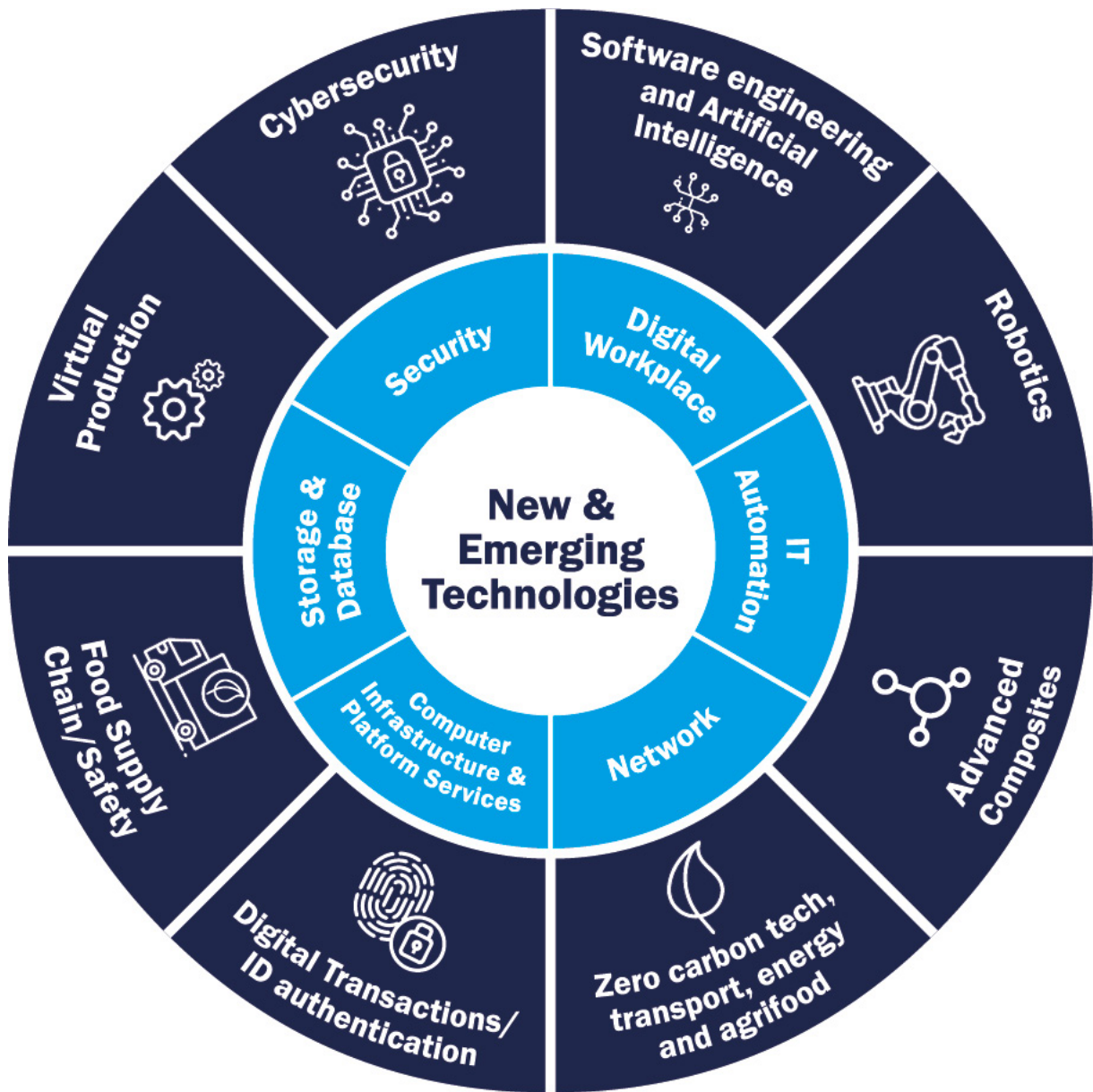
Our plans to address this issue have been set out in our 10x Economy document setting out the new and emerging technologies that will shape the future of Northern Ireland (overleaf) and the existing clusters that are ready to adopt them:

- Digital, ICT and Creative Industries (e.g. Cyber Security)
- Fintech/Financial Services
- Life and Health Sciences (e.g. Personalised Medicine)
- Agri-Tech
- Advanced Manufacturing and Engineering (e.g. Composites)

48 DfE (2021) *A 10x Economy: Northern Ireland’s Decade of Innovation*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/10x-economy-ni-decade-of-innovation.pdf>

49 Johnston, R. & Stewart, N. (2019) *Understanding Productivity in Northern Ireland*. Available from: https://www.ulster.ac.uk/_data/assets/pdf_file/0005/414662/Understanding-Productivity-in-NI-May-2019.pdf

50 Ibid



The right approach to skills policy, accompanied by appropriate investment in the skills system, will be required to set real change in motion.

Discussion of the intention to 'prioritise' high growth, high value-added sectors often leads to concerns that wealth divides and social inequalities will be exacerbated, as only a small proportion of the population achieve the high level skills required to fuel such sectors. A change in our approach to economic and skills policies, however, provides the potential for greater economic and social prosperity across Northern Ireland.

Skills policy in Northern Ireland - and across the UK as a whole - has historically been approached as a 'supply' problem: that more people, with more qualifications and skills are necessary to improve productivity and overall economic performance. Skills policies which do not consider the demand side, however, lead to significant inefficiencies in the skills system and labour market:

“more skills are not necessarily better skills and the mere existence of skills does not automatically lead to improved economic performance”⁵¹.

Instead, it is necessary to consider longer term strategic issues about what is right for our economy and society. What approaches can deliver transformative change in productivity performance *and* address social inequality?

Northern Ireland suffers from a 'low skills equilibrium'⁵², which is linked to the key economic challenges detailed in this document: low wages, low productivity and low levels of in-work progression⁵³. Our economy is structured in such a way that many jobs are offered at low skill levels and with commensurate low wage returns to the employee. As a result, individuals are not incentivised, or empowered, to invest in their skills and their working lives are often characterised by low aspiration⁵⁴. Many businesses accept the constraint that places on the potential of their businesses to grow, with Northern Irish businesses trailing behind UK averages of investing in employee development⁵⁵.

At the other end of the skills spectrum, many degree holders are underemployed⁵⁶, working in jobs which do not require degree level education, but where a 2:1 Degree has become an adopted standard for entry into higher level jobs⁵⁷ (see chapter 4). What lies between has been characterised as 'the missing middle'⁵⁸.

-
- 51 OECD (2011) *Towards an OECD Skills Strategy*. Available from: <http://www.oecd.org/education/47769000.pdf>
- 52 IPPR (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/research/publications/the-skills-system-in-northern-ireland>
- 53 MacFlynn, P. (2017) *A Low Skills Equilibrium in Northern Ireland?* Available from: https://www.nerinstitute.net/sites/default/files/research/2019/a_low_skills_equilibrium_in_northern_ireland.pdf
- 54 Ibid
- 55 Department of Education (UK) (2017) *Employer Skills Survey: Northern Ireland Slide Pack*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746495/ESS_2017_Northern_Ireland_Slide_Pack_v04.00.pdf
- 56 Ibid
- 57 DfE (2019) *The Skills Barometer for Northern Ireland*. Available from: <https://www.economy-ni.gov.uk/publications/northern-ireland-skills-barometer-2019-update>
- 58 Field, S. / The Gatsby Foundation (2018) *The Missing Middle: Higher Technical Education in England*. Available from: <https://www.gatsby.org.uk/uploads/education/the-missing-middle-higher-technical-education-in-england.pdf>

The solution is firstly to explicitly link our Economic and Skills Strategies. Our 10x Economy document details our economic ambition: an innovation focus, a more competitive Northern Ireland and an overall positive impact on our economic, societal and environmental wellbeing. This needs to be underpinned by an enabling Skills Strategy; one which provides opportunities from which all our population can benefit and contribute to renewed prosperity⁵⁹. To achieve this, we must work directly with business to really understand skills requirements: is a degree actually required, or would focused mid-level, technical qualifications be more suited to business needs?

At the same time, those conversations need to happen with education institutions and the students within them. How can we more effectively teach the skills required to support our economic development? How can we provide education pathways and high quality career opportunities to individuals who do not have the desire or inclination for academic education?

International best practice identifies improving social partnership as the key means of achieving more fairly balanced skills and economic policies, which can underpin economic growth and social prosperity⁶⁰. Such approaches advocate collaboration between employers, educators and employee representatives to develop more tailored approaches to recruitment. This is an approach adopted by the Scottish Government in recent years. It is an approach recognised throughout this consultation document.

The governance section of this document (see chapter 5) proposes the development of forums where government, education institutions, employer and employee representatives can engage more strategically on skills development at the regional and sub-regional levels (see Governance section). We have committed to the development of a set of work quality indicators which sets a standard for the type of work and opportunities which will enable our people, and our businesses, to prosper. We are focusing on the need for significant progress in the number of mid-level qualifications we deliver and we want to tackle skills under-utilisation to ensure businesses and employees fulfil their potential.

59 Department for the Economy / Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation Policy in Northern Ireland: An International Small Economy Perspective*

60 Keep, E. (SKOPE) (2016) *Improving Skills Utilisation in the UK – Some Reflections on What, Who and How?* Available from: <http://www.skope.ox.ac.uk/wp-content/uploads/2016/09/Keep.-Improving-Skills-Utilisation-in-the-UK-Some-reflections-on-What-Who-and-How.pdf>

A Case Study: Moving on from a ‘Degree First’ Approach to Recruitment: The Cyber Security Framework for Northern Ireland



The Cyber Security Framework for Northern Ireland aims to capitalise on Northern Ireland’s existing potential in the Cyber Security field and make it, “one of the world’s leading cyber economies, delivering a thriving knowledge economy, due to exemplary talent; pioneering research and innovation; and the secure and resilient infrastructures needed to support businesses and safeguard the public.”

The Strategic Framework is split into three themes: Defend, Deter and Develop. The ‘Develop’ theme emphasises a focus on skills development, to ensure Northern Ireland can take advantage of its potential and an underpinning approach to development is articulated in *‘Minding the Gap’*. This highlights Northern Ireland’s existing strengths in degree and post-graduate level education and research in the cyber sector, but also recognises the challenges and limitations of a ‘degree first’ approach to recruitment.

‘Minding the Gap’ emphasises the internationally recognised ‘NICE Framework’, which clarifies that work in Cyber Security should not be misunderstood as a single job, where a single educational pathway satisfactorily meets the needs of the sector. Instead, it can be broken down into seven different categories and more than 50 distinct job roles, each requiring different levels of skill, training and experience.

7 categories of work



Analyse



Collect and Operate



Investigate



Operate and Maintain



Oversee and Govern



Protect and Defend



Securely Provision

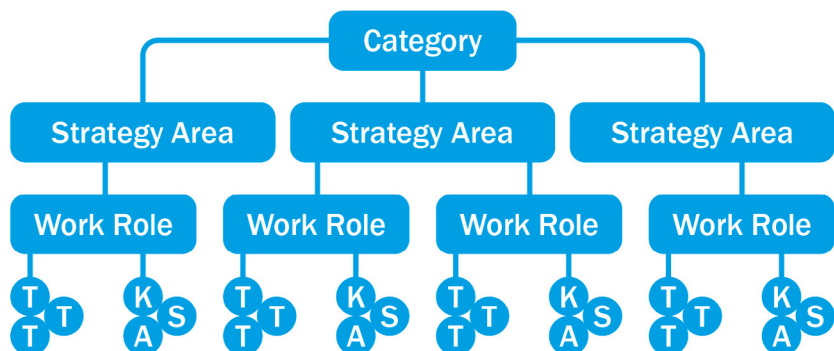
Structure of the Framework

7 Categories

32 Speciality Areas

52 Work Roles

Tasks, knowledge, skills and abilities



Source: Nice Framework

In the short-term, DfE is working with businesses to launch an innovative recruitment pilot. This will see the launch of 1,000 free places on a cyber skills awareness course; the only qualification required is that individuals are from Northern Ireland. 150 further training places will be offered to individuals who have demonstrated an interest and aptitude for work in the sector. Training will be aligned to four job roles taken from the NICE Framework: Security Architecture, Cyber Security Systems Audit, Penetration Tester and Security Operations Centre and Security Incident Response. At the conclusion, 80 vacancies will be open to participants for application (approximately 20 in each category).

In the medium to long-term, the adoption of such a framework can support businesses to better articulate skills needs and recruit effectively, allow education institutions to develop curricula and teaching expertise aligned to industry need and support individuals interested in a Cyber Security career to assess the pathways open to them, regardless of their academic ability.

Education, Skills and Employability

Prior to COVID-19, Northern Ireland had, or was close to, full employment, the economy was growing and productivity was improving. From a skills perspective, outcomes from compulsory education were getting better and the overall skills profile of the workforce continued to improve (see above and Chapter 3).

This is undoubtedly positive, but there remains significant disparities in outcomes, particularly for those living in the most deprived communities. The Northern Ireland Index of Multiple Deprivation Measures (NIMDM) (2017)⁶¹, for example, shows that in some of the most deprived communities, up to 80% of school leavers are not achieving a level 2 qualification and over 60% of the working age population have low or no qualifications. For comparison, the same statistics in the best performing area are 7% and 11%⁶² respectively.

Work is on-going by an Expert Panel tasked with bringing forward an Action Plan to address persistent educational underachievement linked to socio-economic disadvantage. The Action Plan and any associated recommendations are to be submitted to the Minister of Education by 31 May 2021.

As the NIMDM makes evident, in areas of social deprivation poor education outcomes, whether for young people or adults, are not necessarily the cause of, but are directly correlated with:

- low rates of employment;
- high rates of health deprivation and disability;
- poor living environments; and
- a prevalence of crime and disorder.

61 NISRA (2017) *Northern Ireland Index of Multiple Deprivation Measures: SOA Level Results*

62 Figures are rounded.

The full impact which COVID-19 will have on our economy and society remains unclear, but we have already seen significant increases in the number of individuals claiming unemployment-related benefits (58,000 in March 2021⁶³). Initial evidence illustrates that young people, individuals with the lowest qualifications and those who worked in the lowest paying jobs will be most exposed to the economic consequences of the pandemic and the recession that will follow.

As outlined previously, strong coherence between skills and economic policies can support economic recovery. Of equal importance, however, is the development of strong coherence between skills and employability policy, to ensure existing inequalities are addressed, rather than exacerbated and everyone is afforded the opportunity to benefit from, and contribute to, a newly prosperous, ambitious 10x stronger economy.

Some Key Points on Governance

The governance and funding of the skills system are key aspects of this consultation document and will be discussed in full detail in Chapter Five. As readers work through this document, however, there are some key contextual points to highlight briefly: the need for investment in the skills system and proposals to rationalise the Skills Strategy landscape.

Funding the Skills System

In a small advanced economy, with limited natural resources and limited fiscal powers, investing in the skills of our population is one of the key levers at our disposal to stimulate economic development and address social inequality. *'New Decade, New Approach'*⁶⁴ detailed the need for an independent review of the education system in Northern Ireland, spanning provision from early years to further and higher education and placing the outcomes for children and young people at the centre. This review was announced by the Minister for Education in December 2020⁶⁵ with final outcomes anticipated in early 2023.

Whilst this strategic review is welcomed, we must also recognise that seizing the opportunity for generational change will bring a more pressing need for renewed investment in skills. This is a priority to address deepening social inequalities and to drive our decade of innovation, particularly in the post-COVID and post EU Exit context.

63 NISRA (April 2021) *Claimant Count, Northern Ireland Labour Market Report*. Available from: [Labour Market Report - April 2021 \(nisra.gov.uk\)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/856998/2020-01-08_a_new_decade_a_new_approach.pdf)

64 Governments of the UK and Republic of Ireland (2020) *New Decade, New Approach*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/856998/2020-01-08_a_new_decade_a_new_approach.pdf

65 DE (2020) *Independent Review of Education*. Available from: <https://www.education-ni.gov.uk/independent-review-education>

Since ‘*Success through Skills*’ was published (2011), investment in education and skills development has fallen substantially. Analysis of data from HM Treasury’s Country and Regional Analysis⁶⁶ demonstrates that a ‘real terms’ return to 2010/11 levels of expenditure would require the Northern Ireland Executive to invest an additional £461 million per annum. Over the same period, policy decisions on higher education tuition fees have limited the capacity of universities to raise revenue, leaving per capita student funding behind other UK regions. This limits opportunity for individuals across Northern Ireland and is detrimental to the realisation of our economic potential (see Section 4 below).

Investment decisions over the lifetime of the new Skills Strategy (to 2030) also need to make reference to demographics. The population cohorts in the 5-9 and 10-14 year old age groups are the biggest in Northern Ireland in 25 years⁶⁷. These young people will be engaging with further and higher education in the next three to 10 years. With the appropriate funding in place, we can significantly improve the long-term outcomes for this cohort and support the long-term development of our economy.

The decrease in economic activity experienced during the COVID-19 pandemic has hit school leavers, young people and the lowest qualified workers, hardest. A key means to address this is to invest in skills development. By doing so, opportunities can be provided for individuals to boost their long-term potential and, as new opportunities emerge, to support economic recovery and growing competitiveness.

On the other hand, failing to prioritise and tackle Northern Ireland’s growing skills deficit in the face of a recession will stifle economic recovery. It will represent a missed opportunity to reset our economy towards long-term growth and prosperity and to make a real impact on deepening social inequalities.

The OECD’s recent report, designed to support the development of the Skills Strategy, made two key recommendations on investment in skills:

- *All relevant decision makers and ministers should guarantee support and sustainable financial resources to achieve strategic goals as part of a binding, cross-departmental Skills Strategy for Northern Ireland; and*
- *Ensure sustainable funding models and budgeting processes that enable multi-year planning beyond the short-term, traditional annual budget cycle.*

These recommendations, and a broader discussion of the need for investment in the skills system, are included in Chapter 5.

66 HM Treasury (2019) *Country and Regional Analysis*. Available from: <https://www.gov.uk/government/statistics/country-and-regional-analysis-2020>

67 NISRA (2020) *2019 Mid-Year Population Estimates for Northern Ireland*. Available from: <https://www.nisra.gov.uk/publications/2019-mid-year-population-estimates-northern-ireland>

Rationalising the Skills Landscape

As a final note on the strategic context, concerns have been expressed both within government and from stakeholders, that the skills landscape is crowded, with a broad range of skills strategies focusing on various aspects of the skills system. Many individuals and organisations who wish to engage with this consultation will be aware that separate (and often multiple) strategies exist for higher education, further education and apprenticeships. The OECD's research proposes the addition of a new management and leadership strategy and a lifelong learning strategy. The development and management of strategies takes time and the dedication of significant human and financial resources. It can also lead to the separation and divergence of policy priorities with consequences for an effective, value for money skills system⁶⁸, duplication of stakeholder engagement and a lack of flexibility and agility in the skills system^{69, 70}.

Over the next decade, we want to emphasise action, not strategy development. It is proposed that the new Skills Strategy rationalises that landscape, providing a single overarching document for the strategic development of post-compulsory education and lifelong learning. It is also proposed that the Skills Strategy is supported by a 2-5-10 year implementation plan, to ensure regular assessments of progress and the ability to adapt and respond to emerging changes in society, the economy and the labour market. More agile and responsive action plans will, therefore, replace subordinate strategies.

Action Plans will be developed in the direct context of the Skills Strategy and set within in the same oversight and reporting (governance) frameworks. This will place an overarching focus on the delivery of outcomes from our skills system: outcomes for individuals, our society and our economy.

68 Institute of Public Policy Research (Scotland) (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/files/2018-07/ni-skills-july18.pdf>

69 Olivier, A. J. & Schwella, E. (2018) *Closing the Strategy Execution Gap in the Public Sector*. Available from: <https://www.emerald.com/insight/content/doi/10.1108/IJPL-04-2016-0010/full/html>

70 Sull, D. (2007) *Closing the Gap Between Strategy and Execution*. Available from: https://www.researchgate.net/profile/Donald_Sull2/publication/39334469_Closing_the_Gap_Between_Strategy_and_Execution/links/55141efc0cf283ee0834a6d3.pdf

Chapter 3: Northern Ireland’s Current Skills Landscape

‘Success through Skills – Transforming Futures’⁷¹ was published in 2011 by the Department for Employment and Learning (DEL), as Northern Ireland was beginning to emerge from recession. Based on research conducted by Oxford Economics⁷², it set four Strategic Goals to be achieved by 2020 “in order to achieve the skills profile required [to] enable Northern Ireland to compete globally.”

The Strategic Goals⁷³ were to:

- Increase proportion of people in employment with level 2 skills and above to 84 – 90% by 2020, from a baseline of 71.2% in 2008;
- Increase proportion of people in employment with level 3 skills and above to 68 – 76% by 2020, from a baseline of 55.6% in 2008;
- Increase proportion of people in employment with level 4 skills and above to 44 – 52% by 2020, from a baseline of 33.2% in 2008; and
- Increase proportion of those graduating from NIHEI’s in (narrow) STEM by 25 – 30% in 2020 from a baseline of 18% (target translates to 22.5%, forecast outcome is 22.4%).

As is demonstrated in the following table⁷⁴, substantial progress has been made:

	Baseline 2008	Target 2020 ⁷⁵	NI Actual ⁷⁶
Strategic Goal 1 Level 2+	71.2%	84%	84.7%
Strategic Goal 2 Level 3+	55.6%	68%	70.9%
Strategic Goal 3 Level 4+	33.2%	44%	51.2%
Strategic Goal 4 Narrow STEM	18%	22.5%	23.3%

Figure 10: Outcomes against Success through Skills Strategic Goals.

71 DEL (2011) *Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Success-through-Skills-Transforming-Futures.pdf>

72 DEL/Oxford Economics (2009) *Forecasting Future Skills Needs in Northern Ireland*. Available from: https://www.economy-ni.gov.uk/sites/default/files/publications/economy/forecasting%20future_skills_0.pdf

73 Strategic goals 1 to 3 from NISRA (2019) *Indicator 14, Proportion of workforce in employment qualified to level 1 and above, level 2 and above, level 3 and above and level 4 and above – sub-national tables*. Available from: <https://www.nisra.gov.uk/publications/draft-pfgodp-indicators>
Strategic goal 4 uses NISRA (2018/19) *Qualifications gained at UK Higher Education Institutions: Northern Ireland Analysis 2018/19*. Available from: <https://www.economy-ni.gov.uk/publications/qualifications-gained-uk-higher-education-institutions-northern-ireland-analysis-201819>

74 Level 2 is based on the achievement of five GCSEs at grades A* - C including English and maths, or equivalent. Level 3 assumes the achievement of two A-levels, or equivalent. Level 4 indicates the achievement of a higher level qualification, such as a foundation degree or higher national diploma. ‘Narrow’ STEM qualifications include biology, physical and computer science and engineering disciplines but excludes other STEM subjects such as medicine and architecture.

75 Note: Strategic Goal 4 target refers to 2020/21

76 Note: Strategic Goals 1 to 3 refers to the position as of Oct-Dec 2020; Strategic Goal 4 refers to 2019/20 position

All strategic goals have been met when considering the latest data; however, annualised data will not be available until 2022 for the first three.

The proportion of the workforce with low or no qualifications (level 2 or below) has been a persistent problem in Northern Ireland. Whilst substantial progress was made, continued improvement will be required to keep pace with ‘other comparable small advanced economies’. It is also acknowledged that some of this will have been achieved from those entering the labour market with higher qualifications compared with those leaving.

‘*Success through Skills*’ forecast the growing demand for narrow STEM qualifications and it appears the targeted proportionate increase in narrow STEM qualifications will be achieved. Considered in tandem with the evidence emerging from the Skills Barometer, however, two key messages can be drawn from the data set out above. Firstly, that the greatest anticipated undersupply of skills, under a high economic growth scenario, will be at levels 3 – 5, with a need to be more ambitious around these levels to meet our projected economic demand. Secondly, that the ‘narrow STEM’ target did not fully account for the scale of change required to satisfy the changing needs of the Northern Ireland economy.

Achieving bulk improvements in the qualifications of the workforce is undoubtedly important, however, it needs to be done in a way that meets the needs of the economy, to ensure skills are well utilised and workers are properly compensated for the skills they hold. In general, holding higher qualifications is associated with higher wages, lower economic inactivity rates and better wellbeing overall.

These findings inform some of the objectives proposed within this consultation. For example, ‘*developing a culture of lifelong learning*’ considers how professional and technical education pathways (typically level 3 – 5 qualifications) can be established as an alternative to academic education and how we engage more businesses and members of the existing workforce in accredited skills development. The development of the Skills Barometer, first published in 2015 and published biennially thereafter, provides us with a ‘live’ evidence base for skills demand. Our proposal to establish a 2-5-10 year implementation plan under the auspices of the new Strategy will limit the risk of skills forecasts becoming dated in a rapidly changing labour market, as arguably is the case with the Oxford Economics research.

Impact on the Economy and Society

Drawing on some key labour market indicators is also instructive, as we assess the impact ‘*Success through Skills*’ has had on overall economic performance. Despite improvements in the skills profile of the population over the Strategy period, there are still substantial challenges including:

- Economic inactivity⁷⁷ fell marginally (28.5% in 2008 to 26.2% in 2019), but remained significantly above the UK average (21%) and presenting a persistent problem for NI⁷⁸.
- Whilst productivity⁷⁹ has grown over the period slowly, it continues to lag behind the UK rate (at around 84% of the UK average in 2018), which in turn compares unfavourably with other advanced economies.
- There are longstanding variations in qualification attainment, though the gap is narrowing. Those entitled to free school meals are much more likely to leave school with lower qualifications (49.5% of those entitled to free school meals left school with at least 5 GCSEs A*-C, including English and Maths, compared with 78.5% of those leaving not entitled to free school meals⁸⁰) and those in employment from more deprived neighbourhoods are less likely to hold higher qualifications (30.5% of those in employment in the most deprived neighbourhoods hold level 4 and above qualifications, compared with 58.8% of those in the least deprived neighbourhoods⁸¹).

It is important that the economically inactive are supported to re-engage with the labour market. We know that approximately 53,000 people (December to February 2021) who are currently economically inactive would like to work, if the circumstances were right⁸². Therefore, the skills system must play its part in a cross government approach to support the economically inactive. It must be acknowledged that this is not a straightforward matter of improving skills provision. Economic inactivity can be associated with a range of challenges, such as long-term health problems, caring responsibilities and generational unemployment.

77 NISRA (2020) *Labour Force Survey*. Available from: <https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/labour-force-survey>

78 The rate has returned to 28.3% as demonstrated in the latest Labour Market Survey. NISRA (2021). Available from: <https://www.nisra.gov.uk/statistics/labour-market-and-social-welfare/labour-force-survey>

79 Office for National Statistics (2020) *Labour Productivity*. Available from: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity>

80 DE (2020) *Destination and Qualifications of School Leavers 2018/19*. Available from: <https://www.education-ni.gov.uk/publications/school-leavers-201819-statistical-bulletin>

81 NISRA (2020) *Labour Force Survey*. Available from: <https://www.nisra.gov.uk/publications/draft-pfgodp-indicators>

82 Ibid

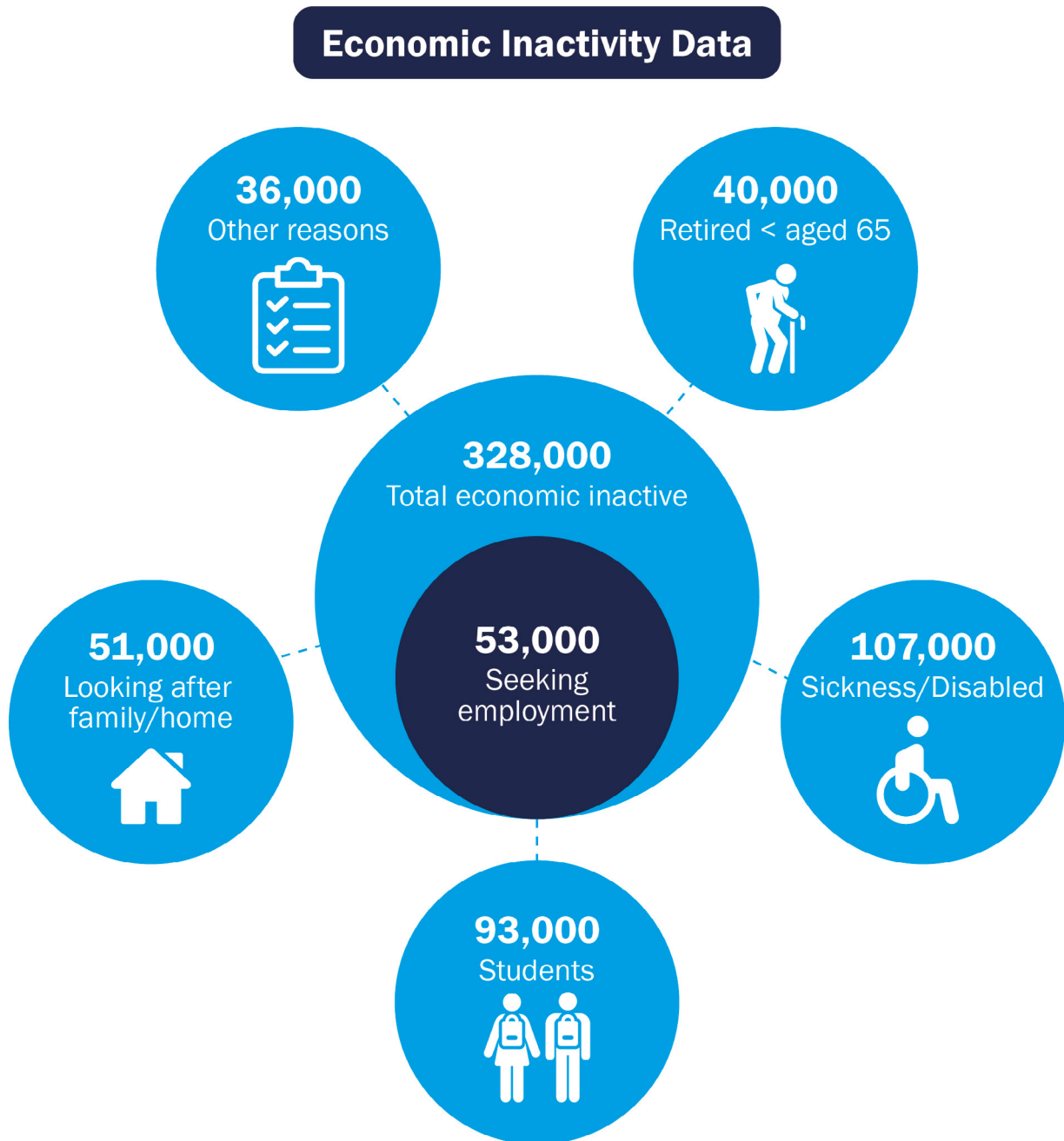


Figure 11: Reasons for Economic Inactivity in Northern Ireland⁸³
Source: NISRA, Economic and Labour Market Statistics

Despite improvements in the population’s skills profile there has been limited impact on closing the productivity gap with the UK (see below)⁸⁴.

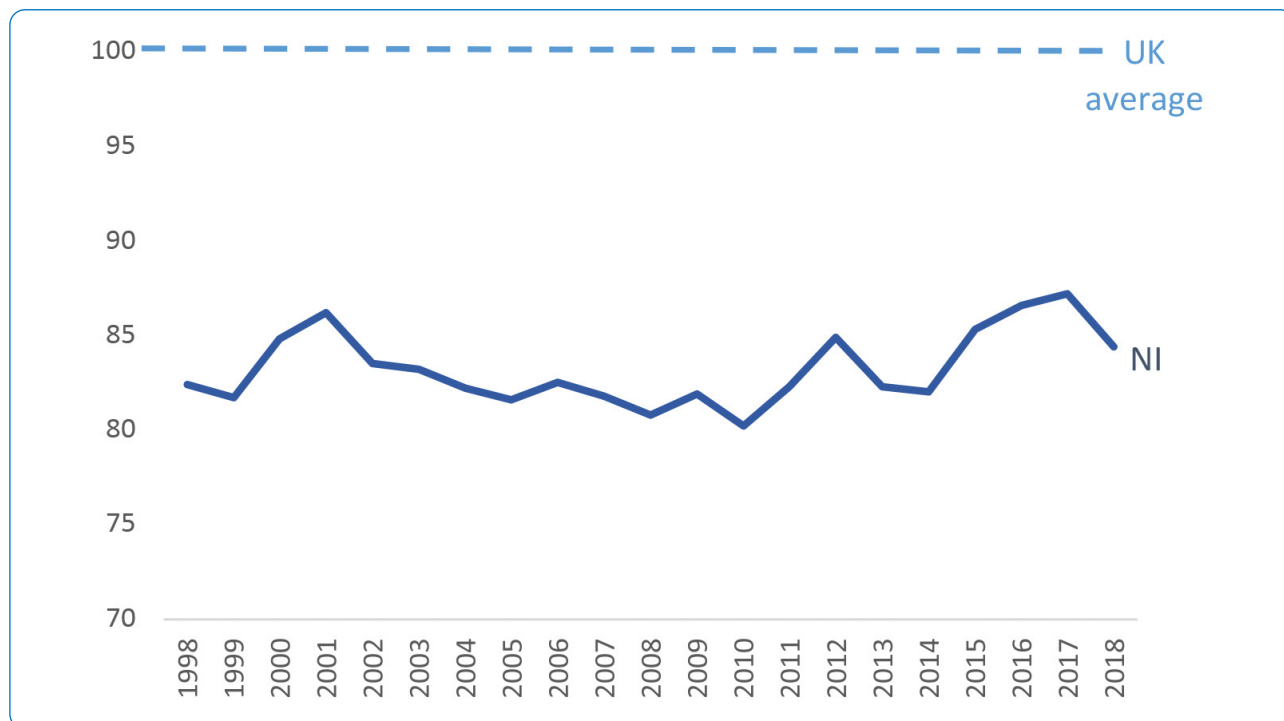


Figure 12: Labour Productivity: GVA per hour worked

This remains a persistent problem in Northern Ireland⁸⁵. Productivity performance is subject to a range of influences and we must recognise that improvement in the skills profile alone will not resolve the problem. Developing greater coherence between skills, innovation and economic policy, however, has the potential to make an impact.

Research commissioned by the DfE and undertaken by Landfall Strategy Group⁸⁶ underlines how the prioritisation of skills and innovation, aligned to high growth, high value added sectors, can drive productivity improvement. A more specific and refined focus on post-graduate level qualifications and research, which supports innovation potential in established areas of competitive strength, enhances the potential for Northern Ireland to develop a unique, globally competitive proposition. Simultaneous growth in the development of degree and sub-degree level skills to maximise absorptive capacity is crucial, as is a greater focus on the leadership and management skills necessary to maximise the capacity of high-potential firms.

84 Ibid

85 Ulster University Economic Policy Centre (2019) *Understanding Productivity in Northern Ireland*. Available from: https://www.ulster.ac.uk/_data/assets/pdf_file/0005/414662/Understanding-Productivity-in-NI-May-2019.pdf

86 Department for the Economy / Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation Policy in Northern Ireland: An International Small Economy Perspective*

'Success through Skills – Transforming Futures' was published as a departmental Strategy by the Department for Employment and Learning. The creation of DfE creates the landscape for a more coherent, strategic approach to skills which supports our economic potential. It is necessary to go further. Our previously noted proposal - to develop interdepartmental governance structures - is based not only on international best practice and feedback from stakeholders, which highlights a lack of 'joined-up' government - but also findings from our evaluation of *'Success through Skills'*, which showed that it was viewed largely as a departmental strategy and lacked wider buy-in across government. Reducing Northern Ireland's high levels of economic inactivity is a key example of where the skills agenda would benefit from an 'Executive' level profile, to ensure a more comprehensive, cohesive, outcomes-focused approach to the development and implementation of related policy.

The fact that 71% of Northern Ireland's citizens are satisfied with their lives overall and 70% are satisfied with their standard of living should not be overlooked. This compares with UK averages of 68% and 65%⁸⁷. It is crucial that skills interventions continue to enhance social wellbeing, whilst improving economic performance.

Considerable progress has been made under *'Success through Skills – Transforming Futures'*, laying a solid foundation for the future development of Northern Ireland's skills profile. It is a core aspect of our proposals that the next Skills Strategy is recognised as a central aspect of public policy, which has significant implications for the economic prosperity and fabric of our society.

87 Which? (2019) *Consumer Insight Report 2019: Northern Ireland*. Available from: <https://consumerinsight.which.co.uk/reports/consumer-insight-report-2019-northern-ireland>

Chapter 4: Strategic Goals & Policy Objectives

The development of this Consultation Document has drawn on a wide range of local and internationally focused evidence. This has been supplemented by a series of formal stakeholder engagement events, held across Northern Ireland and through ongoing engagement with stakeholders and advisory bodies. That research and engagement has led to these proposed Strategic Goals, Policy Objectives and Policy Enablers (see chapter 5).

The Skills Barometer for Northern Ireland is the most significant development in informing our strategic skills landscape over the last decade. In its simplest terms, the Skills Barometer defines three major challenges for our skills system, if it is to support Northern Ireland's 10x Economy:

- Employment opportunities for individuals with low or no qualifications⁸⁸ will continue to decrease. There is a need to promote better pathways to mid and higher level qualifications, to avoid exacerbating existing inequalities.
- There is a need to significantly increase the proportion of the workforce with mid-level qualifications, to meet our economic potential.
- The overall number of degree and post-graduate awards needs to be marginally increased over the lifetime of the Strategy, in line with population projections. The development of a prosperous, knowledge-based economy, however, will rely on significantly increasing the number of qualifications delivered in narrow STEM⁸⁹ subjects, with corresponding reductions in areas such as social studies and other subjects predominantly aligned with work in the public sector.

Strategic Goals for the new Skills Strategy

NB: these goals place the skills supply gap identified under the Skills Barometer's high growth scenario at the centre of the proposed Strategy; this approach is the key consideration we are asking consultees to reflect on. Subject to confirmation, these goals will be further refined to reflect SMART⁹⁰ objectives. We may also develop subordinate targets, for example, to measure change in areas of social deprivation.

By 2030:

- **increasing the proportion of individuals leaving Northern Ireland higher education institutions with degrees and post-graduate qualifications in 'in-demand' STEM subjects, including: physical, environmental and computer sciences, engineering and mathematics;**

88 The Skills Barometer divides qualifications by three main levels: 'low, or no qualifications' – qualifications at level 2 and below i.e. 5 GCSEs at grades A* – C including English and Maths and equivalents; 'mid-level qualifications' – ranges from level 3 (two A-Levels at grades A* – C and equivalent professional and technical qualifications) to level 5 (sub-degree level higher education qualifications); and 'higher level qualifications' – degree and post-graduate level qualifications. These strategic goals are set against the same standards.

89 Narrow STEM refers to the core sciences, maths, computer science, engineering and technology

90 SMART targets are Specific, Measurable, Achievable, Realistic and Timebound.

- **significantly increasing the proportion of individuals achieving level 3, 4 and 5 qualifications, in line with forecast demand; and**
- **increasing the proportion of the working age population with qualifications at level 2 and above.**

These challenges will be addressed through three major policy objectives:

- Addressing Skills Imbalances, Driving Economic Growth;
- Creating a Culture of Lifelong Learning; and
- Enhancing Digital Skills, Developing a Digital Spine.

And supported by a further three policy enablers:

- Enhancing Policy Cohesion;
- Building Strong Relationships; and
- Investment in the Skills System.

i.) Addressing Skills Imbalances, Driving Economic Growth

‘Addressing Skills Imbalances, Driving Economic Growth’ can be seen as an overarching objective. It is at the heart of what the Skills Strategy aims to achieve. The following chapter sets out evidence, and a proposed programme of activity, aligned to each of these strategic goals.

[Individuals with Low or no Qualifications – Delivering on the Level 2 Target](#)

The last Skills Strategy, ‘Success through Skills – Transforming Futures’ set out the development of an increasingly ‘skills hungry’ labour market. That has proven to be the case. As the Skills Barometer demonstrates, this trend is expected to continue, as labour market opportunities for those with low or no skills continue to decline.

Outcomes from schools have continued to improve⁹¹.

91 Department of Education / NISRA (2019) *Statistical Bulletin 7/19 Year 12 and Year14 Examination Performance at Post-Primary Schools in Northern Ireland 2018 – 19*. Available from: <https://www.education-ni.gov.uk/sites/default/files/publications/education/SAER%20Infographic%201819.pdf>

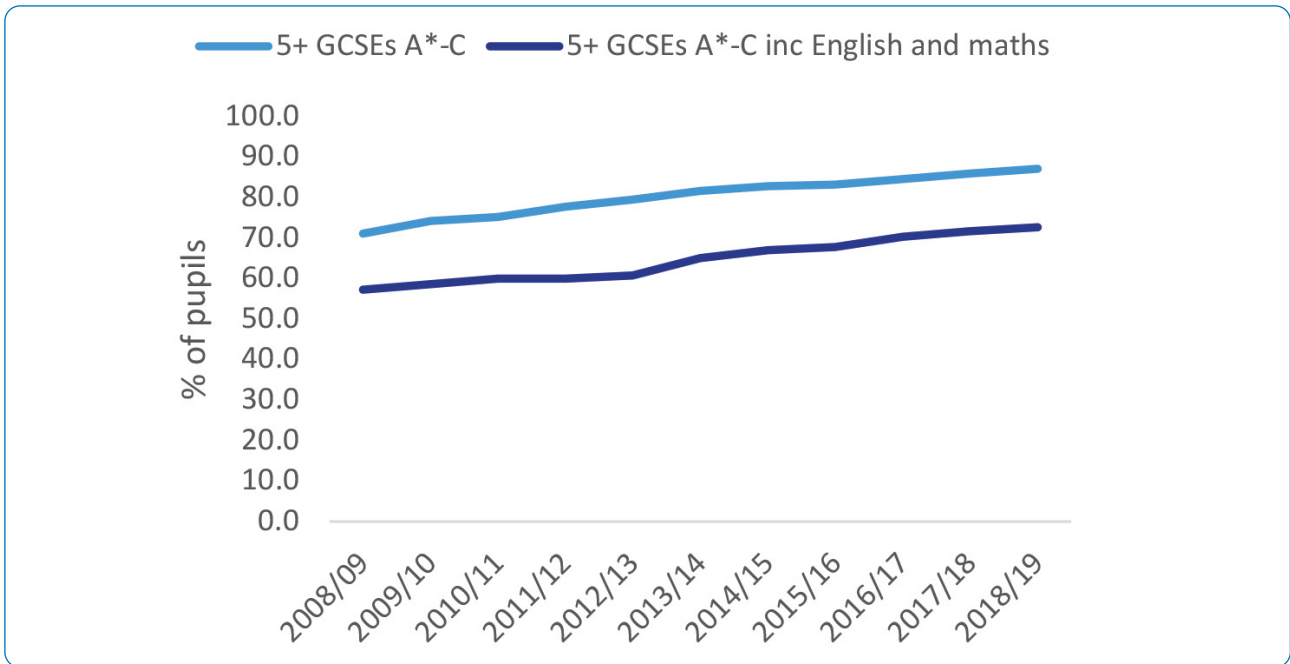


Figure 13: Year 12 Performance at GCSE
Source: DE/NISRA

Similarly, the proportion of the workforce with level 2 and above skills has grown considerably⁹².

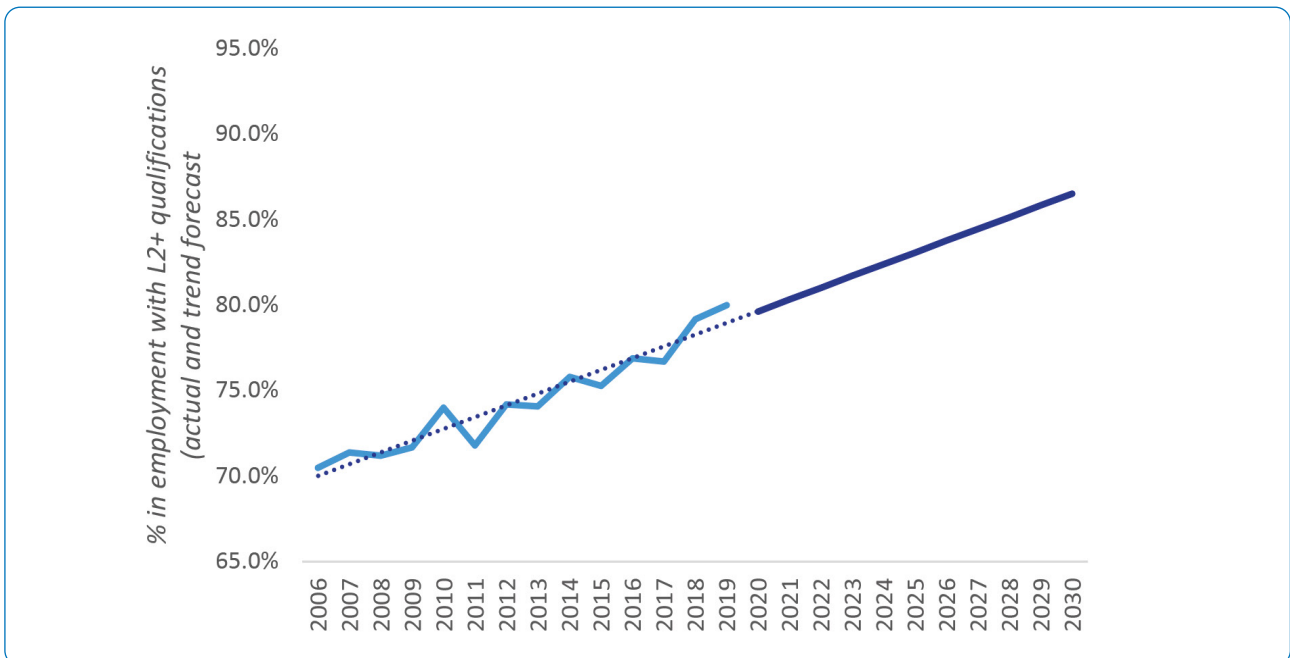


Figure 14: Proportion in employment with Level 2 qualifications
Source: NISRA - Proportion in employment with level 2 and above qualifications

92 Kieran, J. & Murray, L. (DfE, 2020) *Evaluation of Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Strategy-Evaluation.pdf>

This is undoubtedly positive, but the outstanding concern is that it masks disparities and deepening inequalities. The Northern Ireland Index of Multiple Deprivation Measures (NIMDM) (2017)⁹³, for example, notes that in some of the most deprived communities, up to 80% of school leavers are not achieving a level 2 qualification and over 60% of the working age population have low or no qualifications. For comparison, the same statistics in the best performing area are 7% and 11% respectively.

As the NIMDM makes evident, lower qualification attainment levels are directly correlated with (but not necessarily the cause of):

- low rates of employment;
- high rates of health deprivation and disability;
- poor living environments; and
- a prevalence of crime and disorder.

While opportunities for individuals with low or no skills will continue to contract, almost one third of the current workforce remains in this bracket, rising to 40% when the whole 16 – 64 year old population is considered⁹⁴. As set out previously, these individuals are most exposed to economic shocks, such as COVID-19 and to the rapid change taking place in our labour market, through the development and adoption of new technologies.

The Skills Strategy must place a focus on enabling more individuals to participate in the post-compulsory education (level 3 and above) which will drive our economic recovery. This must be balanced, however, against the appropriate measures to ensure that existing inequalities are not exacerbated. It is vital that more individuals with low or no qualifications are effectively engaged in education and training which will provide pathways to sustainable employment.

Engaging Individuals with Low or No Qualifications.

Our response to COVID-19 included a number of measures aimed at supporting the most vulnerable members of our society and workforce. There is an opportunity to develop these initial measures towards a longer term approach to addressing low skills, deprivation and inequality.

93 NISRA (2017) *Northern Ireland Index of Multiple Deprivation Measures: SOA Level Results*

94 *ibid*

The short-term interventions we have put in place as a response to COVID-19 have included a range of level 1 and 2 courses, designed for remote delivery and focusing on vital entry level skills including essential skills⁹⁵, employability skills and digital qualifications. We are already aware that demand exists (from trades unions) for increased access to remote learning facilities for workers. There will be merit in evaluating the success of this provision and, working with post-compulsory education providers, to examine the potential to mainstream such remote learning provision.

Proposed Commitment 1:

We will examine the potential to mainstream remote learning provision in key areas of essential skills, employability skills and digital skills for individuals and employers.

Economic Inactivity

High levels of economic inactivity have been a long-term challenge for Northern Ireland. Prior to the COVID-19 pandemic, in the context of full employment, labour supply was a major issue facing Northern Ireland's economy; other than inward migration, supporting the economically inactive back to work was a key challenge. This cohort of the Northern Ireland's population should not be overlooked, as we aim to rebuild our economy.

Economic Inactivity in UK Regions, 1992 - 2020⁹⁶

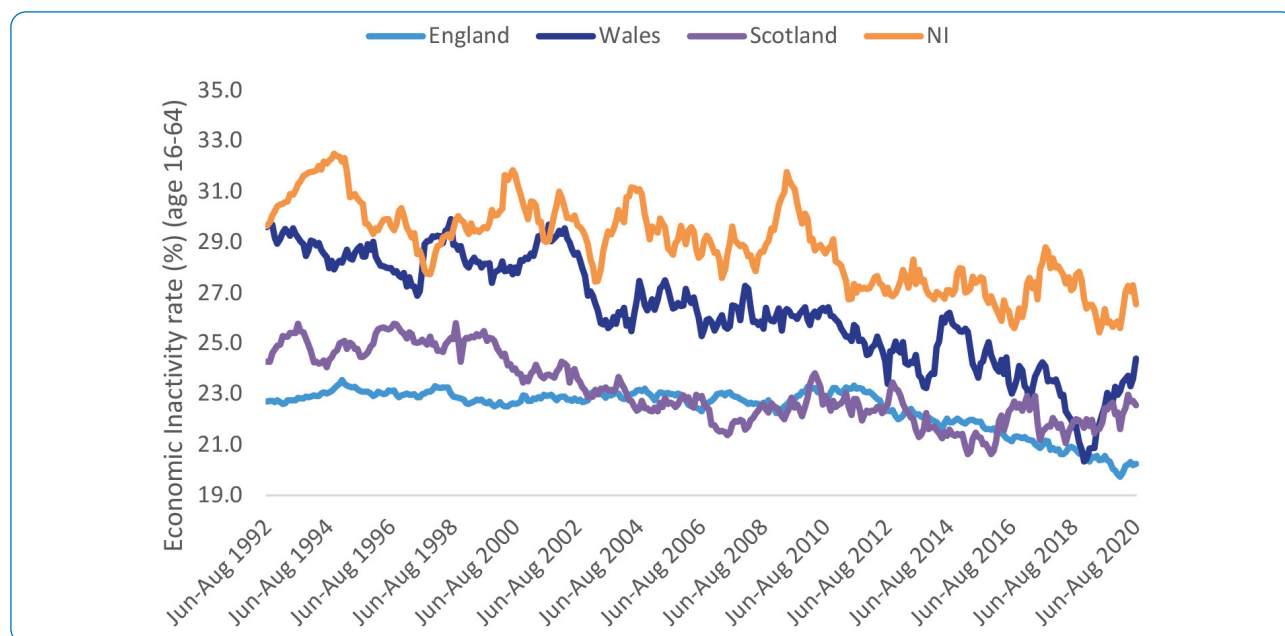


Figure 15: Economic Inactivity Rate (%) (age 16-64)

Source: ONS

95 Throughout this document, essential skills refers generally to literacy, numeracy skills as set out in 'Essential Skills Standards and Curriculum for Literacy and Numeracy in Northern Ireland' available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Essential%20Skills%20Interactive%20PDF%20%28revised%29.pdf>

96 Office for National Statistics (October 2020) *Regional Labour Market: Headline Labour Force Survey indicators for all regions*. Available from: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/headlinelabourforcesurveyindicatorsforallregionshi00>

Economic inactivity has multiple causes and, again, education and training cannot provide the whole solution. It cannot be ignored, however, that more than 60% of the economically inactive population have low or no qualifications⁹⁷. DfC’s development of the ‘*Employability NI*’ project is well advanced. It is directed at addressing Northern Ireland’s long-term economic inactivity challenge. This has been developed in partnership with DfE and will provide the NI Executive’s overarching response.

Proposed Commitment 2:

DfE will work directly with DfC to support collaborative approaches between local and central government to develop the education and training provision required to underpin both the Skills Strategy and the ‘Employability NI’ Strategy.

Mid-Level (Professional and Technical) Qualifications

As shown below, the Skills Barometer⁹⁸ forecasts shortages of level 4 & 5 qualifications in a broad range of fields of study⁹⁹, however, a predominance of STEM subjects is notable.

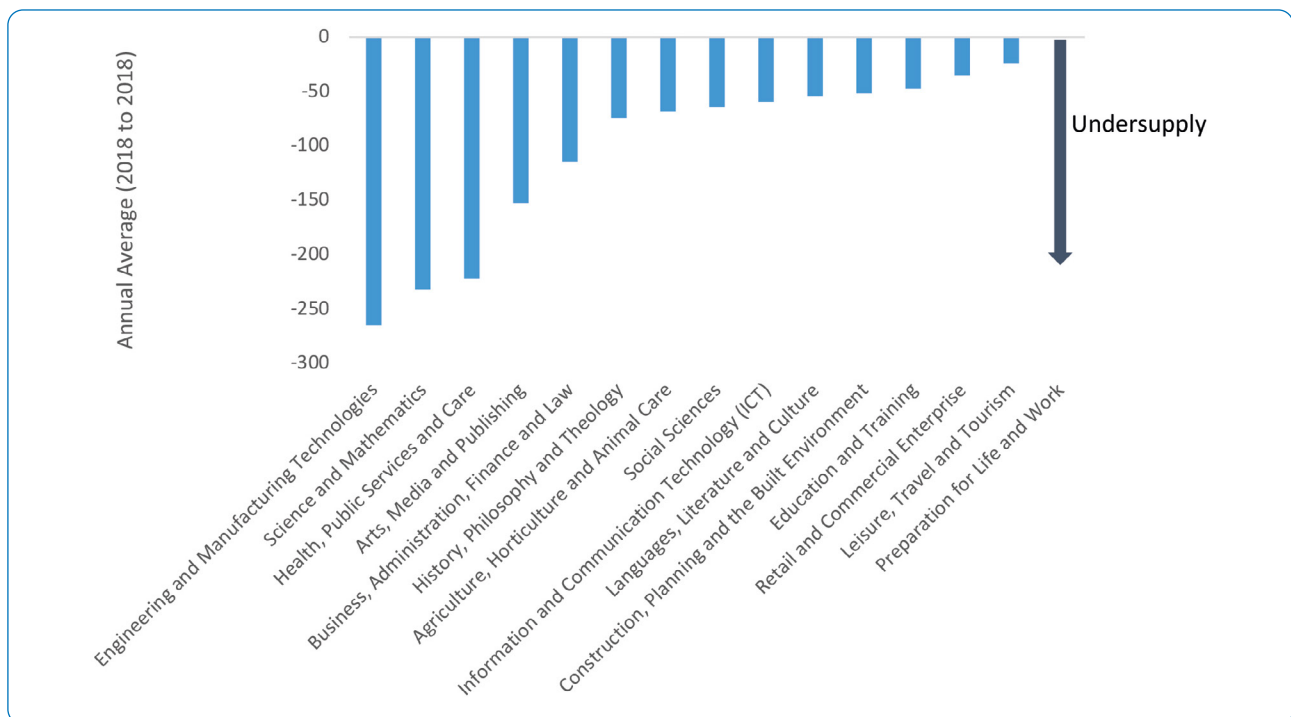


Figure 15: NQF level 4/5 subject balance by subject (1-digit SSA)

97 NISRA (2020) *Quarterly Labour Force Survey- May 2020*. Available from: <https://www.nisra.gov.uk/publications/quarterly-labour-force-survey-tables-may-2020>

98 Ulster University Economic Policy Centre (2019) *Skills Barometer*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Barometer-2019-Summary-Report.pdf>

99 Whilst a growing demand for level 3 qualifications is identified in the Skills Barometer, subjects in demand at level 3 are not specified. Subject specification is focused on level 4 and above given the diverse range of subjects typically studied by A Level students.

Despite this forecast increase in demand, current trends show that the number of higher education enrolments at further education colleges has decreased over the past five years¹⁰⁰. To address this, the Skills Strategy must emphasise lifelong learning and a growing prevalence of non-academic pathways to professional and technical qualifications, as young people transition from school to third level education.

Ongoing collaborative work between DE and DfE on the ‘*Transition of Young People into Careers (14 – 19) Project*’ is of central importance. This project is well advanced and we do not intend to pre-empt the outcomes in this document. There will be a need to recognise the recommendations emerging from this work in the Skills Strategy.

Proposed Commitment 3:

The outcomes from the ‘Transition of Young People into Careers (14 – 19) Project’, jointly lead by DE and DfE will be recognised within the new Skills Strategy.

What is clear, however, is that satisfying the demands of a changing labour market will require continued investment in Northern Ireland’s Further Education (FE) sector. As emphasised in Northern Ireland’s FE Strategy¹⁰¹, ‘*FE Means Success*’, the sector is central to coping with changing demands in our labour market.

Through mainstream provision and in the delivery of Higher Level Apprenticeships (HLAs), FE is the principal provider of ‘in demand’ level 4 and 5 qualifications (HE in FE) and a dominant provider of vocational qualifications at level 3. From a policy and operational perspective, the sector is striving to deliver against these needs, with a particular emphasis on the qualifications in priority sectors that will drive economic development.

From a resource perspective, however, this must always be balanced against the role the sector plays in adult education and the provision of qualifications at level 2 and below. As set out above, the capacity of the skills system to deliver entry level qualifications and pathways to further and higher education is crucial, if we are to avoid the deepening of existing inequalities and support the realisation of our economic and societal ambition.

100 Department for the Economy (2019) *Further Education Activity in Northern Ireland: 2014/15 to 2018/19*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Annex-A-FE-Activity-NI-1415-1819-bulletin.pdf>

101 Department for Employment and Learning (2016) *Further Education Means Success: The Northern Ireland Strategy for Further Education*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/FE-Strategy%20FE-Means-success.pdf>

At present, the delivery of entry level qualifications remains dominant in the FE sector (see table below¹⁰²). This provision is essential, but we must simultaneously ensure the sector has the resource and capability to address the forecast imbalances at mid-levels. In the early stages of the Skills Strategy’s implementation phase, investment in FE must be driven by the data provided by the Skills Barometer, in consultation with business. In accordance with the OECD’s recommendations, over time, this should be tied to employment outcomes, as measured by a renewed approach to tracking FE Leavers and assessed against a set of ‘work quality indicators’ currently being developed, with more successful courses attracting greater subsidies.

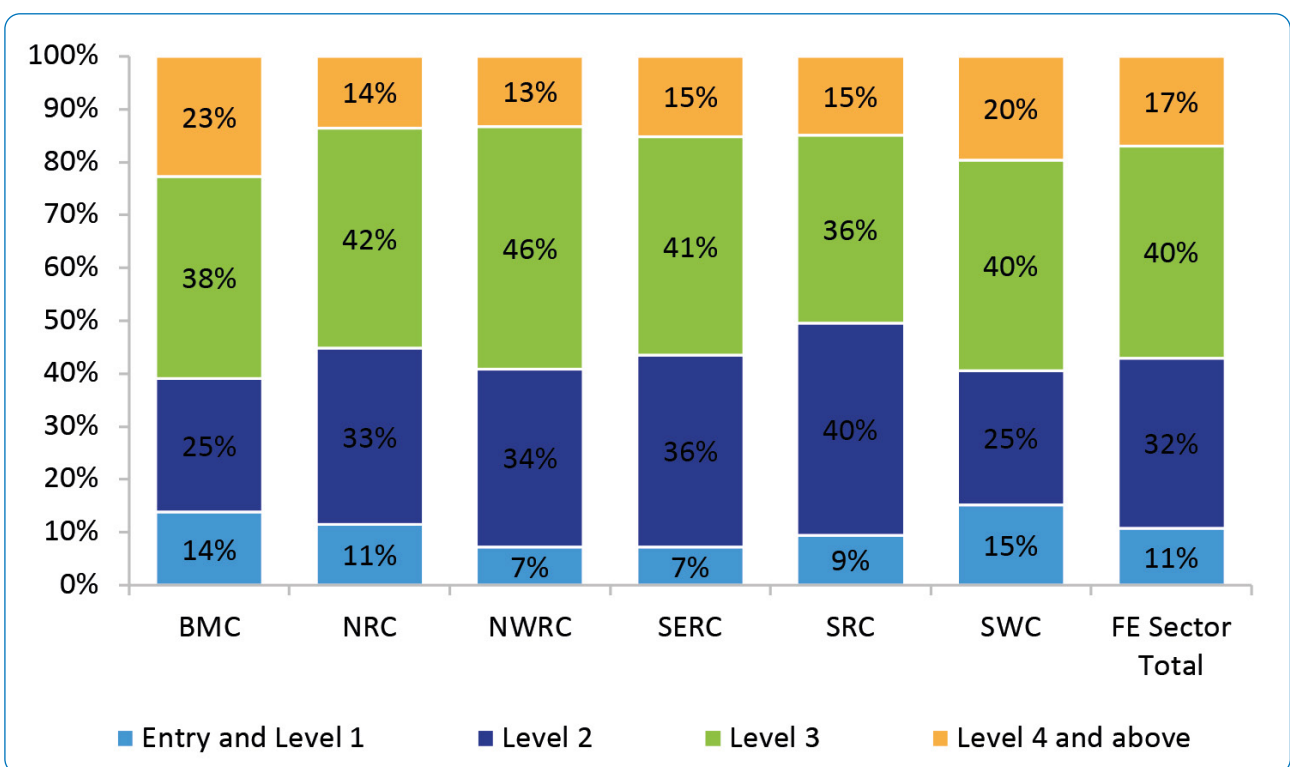


Figure 16: Proportion of regulated enrolments by level of study in 2019/20

Proposed Commitment 4:

DfE will review how it collects information on the destination and outcomes for FE College leavers, to improve evidence on long-term outcomes for FE qualifiers.

Proposed Commitment 5:

We will ensure Northern Ireland’s Further Education sector has the resource and capability to deliver its dual objectives of providing essential, entry level pathways to education and professional and technical skills, to support economic and social prosperity.

102 DfE (2019) *Further Education Activity in Northern Ireland: 2014/15 – 2018/19*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Annex-A-FE-Activity-NI-1415-1819-bulletin.pdf>

Significantly increasing the number of individuals achieving mid-level qualifications is an overarching goal of this Strategy. This will rely both on upskilling the existing workforce (see section on lifelong learning), as well as a focus on increasing the demand for mid-level qualifications from employers and students.

Recent years have seen declining numbers of enrolments in full time level 4 and 5 courses¹⁰³. Nonetheless, we know that demand for mid-level skills will considerably outstrip supply over the next decade. It is necessary, therefore, that we develop a stronger understanding of the causes for declining enrolments and make appropriate interventions. This has already been recognised, as a review of level 4 and 5 ‘HE in FE’ education is underway. The outcomes of that review will be recognised in future implementation plans.

Proposed Commitment 6:

A review of level 4 and 5 ‘HE in FE’ education will be conducted. Recommendations and actions arising from the review will be incorporated in the implementation of the Skills Strategy

Graduate and Post-Graduate Qualifications

The Skills Barometer shows that the overall quantum of graduate and post-graduate qualifications is only marginally undersupplied to deliver long-term economic prosperity, but the balance is poorly aligned within the fields of study that are needed.

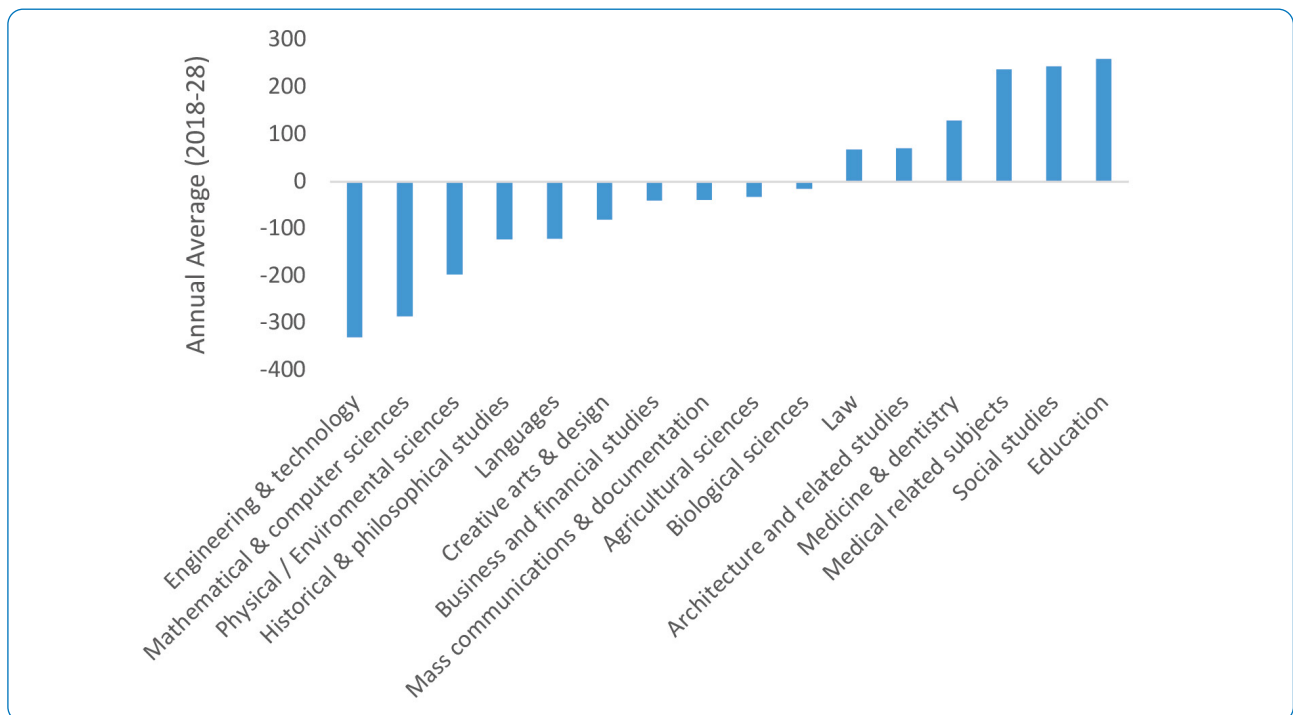


Figure 16: NQF level 6+ subject balance by subject (1-digit JACS)

103 DfE (2019) Further Education Activity in Northern Ireland 2018/19. Available from: <https://www.economy-ni.gov.uk/publications/further-education-activity-northern-ireland-201819>

Over the last decade, it must be acknowledged that collaborative work between the Department and the universities has successfully delivered against the ‘*Success through Skills*’ goal of a proportionate increase in the supply of graduate and post-graduate qualifications in (narrow) STEM subjects¹⁰⁴. There is an ongoing need to continue this collaborative work, and potentially, to consider new means of promoting the uptake of economically relevant qualifications.

DfE can only determine student numbers at the institutional level, through the *Maximum Student Number (MaSN)*. It is acknowledged that MaSN, and corresponding university funding, will need to increase to support population growth and moreover, the cost of delivering economically relevant STEM qualifications is typically higher than other degrees. From an efficiency and value for money perspective, however, proportionate increases in the delivery of undersupplied STEM qualifications should be offset by reductions in the number of places offered in oversupplied areas.

As detailed below, the policy landscape, in relation to universities in Northern Ireland, is complex. It is clear that achieving our societal and economic objectives in the medium to long-term will rely on a strong and sustainable higher education sector. It remains a strategic priority for Northern Ireland, particularly in support of developing a competitive, knowledge-based economy.

Funding

Current policy, as related to university tuition fees, leaves Northern Ireland’s universities at a disadvantage, when compared with institutions across the UK. Estimates have suggested funding per student in Northern Ireland is currently £2,000 less than in English universities¹⁰⁵. This is not dissimilar to the figures identified in a consultation prepared by the Department for Employment and Learning in 2015, ‘*Securing a Sustainable Solution for Higher Education in Northern Ireland*’¹⁰⁶.

The funding gap began to emerge following a decision in Westminster in 2012, to enable English universities to increase tuition fees (currently up to £9,250). The Northern Ireland Executive has sought to retain a lower cap on tuition fees charged by NI Higher Education Institutions to NI and EU students (currently £4,395 for the 20/21 academic year), but has simultaneously reduced budget allocations for higher education, resulting in a squeeze on higher education funding.

A smaller, but significant, funding gap exists with Scottish universities. The Scottish Government has chosen to retain a lower maximum student contribution (£1,820), but subsidised funding, with considerable public investment, to retain a higher level of parity with English institutions.

104 Kieran, J. & Murray, L. (DfE, 2020) *Evaluation of Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Strategy-Evaluation.pdf>

105 Time Higher Education (2020) *Northern Ireland Universities Need More than Fees Soundbites*. Available from: <https://www.timeshighereducation.com/news/northern-irish-universities-need-more-fees-soundbites#>

106 DEL (2015) *Securing a Sustainable Solution for Higher Education in Northern Ireland: An Options Paper*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/consultations/del/HE%20options%20paper.pdf>

The questions of university funding, and the capacity of the further education sector to deliver Northern Ireland's skills needs will be considered within the overall context of the '*Independent Review of Education*' referenced in '*New Decade, New Approach*' and announced by the Minister of Education in December 2020¹⁰⁷.

Proposed Commitment 7:

Relevant Government departments and arms-length bodies will contribute fully to the 'Independent Review of Education', announced by the Minister of Education in December 2020, to ensure our education system is sustainable, economically relevant and equipped to deliver the best outcomes for our children, young people and society as a whole.

Post-Graduate Qualifications

In accordance with research from Landfall Strategy Group, Government should facilitate and support further collaboration between universities and businesses in priority sectors, to incentivise post-graduate education and research, which can boost the potential of NI businesses, driving improvements in innovation and competitiveness performance. Post-graduate qualifications are not subject to MaSN restrictions.

The benefits of greater collaboration is not limited to business. Landfall Strategy Group emphasises the benefits to universities, through the development of academic expertise with demonstrable commercial value. This has the potential to develop and attract world-leading academic talent. The long-term outcome is to develop Northern Ireland as a 'hub' of global expertise, that empowers the emergence of innovative, globally competitive, indigenous companies, developing - and collaborating with - world-leading academic talent, and attracting FDI through advanced knowledge, skills, absorptive capacity and supply chains.

Investing in the skills and knowledge to drive research and innovation in the enabling technologies that will shape Northern Ireland's future, and developing enhanced collaboration between government, academia and businesses in our key strategic clusters, is a key component of our strategy to deliver the economic vision for Northern Ireland set out in '*A 10x Economy*'¹⁰⁸.

Proposed Commitment 8:

We will increase collaborative investment between Government, research institutions and business in post-graduate education and research, which support the development of Northern Ireland's key strategic clusters set out in 'A 10x Economy'.

107 Department of Education (2020) *Independent Review of Education*. Available from: <https://www.education-ni.gov.uk/news/independent-review-education>

108 DfE (2021) *A 10x Economy: Northern Ireland's Decade of Innovation*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/10x-economy-ni-decade-of-innovation.pdf>

Women in STEM

As set out in MATRIX's 'Women in STEM' Position Paper¹⁰⁹ the number of females choosing to study STEM subjects beyond GCSE level is a particular concern as we develop our 10x Economy.

In 1999, 11,943 boys and 11,104 girls were born in Northern Ireland.

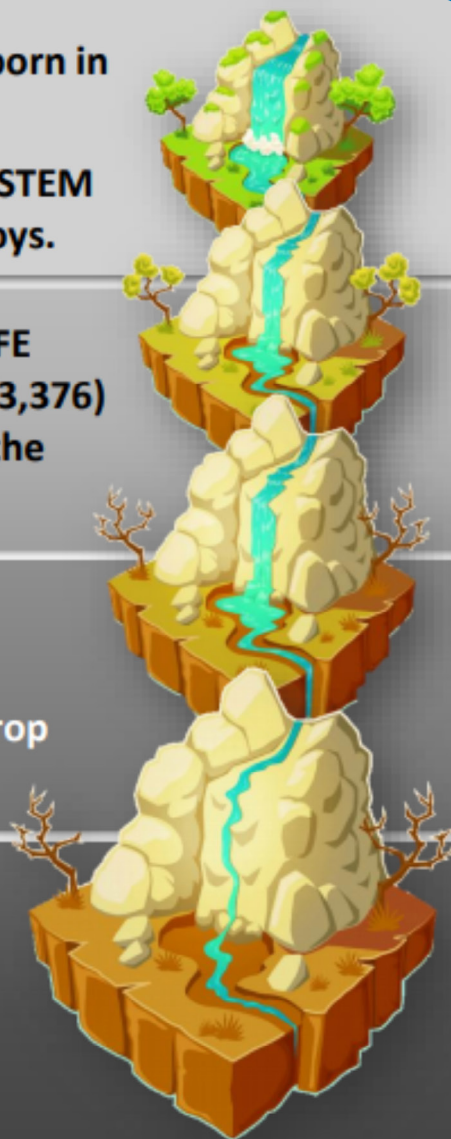
In 2014/15, 87.6%* of the girls (9,647) took STEM GCSEs, compared to 91%* (10,873) of the boys.

But when it came to Core STEM A levels or FE vocational exams in 2016/17, only 30.7%* (3,376) of girls took one. That compares starkly to the 85%* (10,221) of boys who did so.

So the decline in girls participating in Core STEM between GCSE & A Level/FE is anticipated to be 65%, compared to a 6% drop off for boys.

The gender imbalance in Core STEM participants can never recover from this catastrophic decline, so to understand the imbalance we must understand what puts girls off Core STEM at GCSE/A level/FE.

*Projections based on UK WISE rates of qualifiers.



Source: MATRIX N

109 MATRIX NI (2018) *Women in STEM*. Available from: <https://matrixni.org/wp-content/uploads/2018/05/Women-in-STEM-Report-final-20-may.pdf>

As a result of the MATRIX NI Position Paper, a cross-government Working Group has been established to develop a Women in STEM Action Plan. Building on the paper's recommendations, it is considering the major factors which constrain the supply of females into STEM study and careers right across the education and career pathway, with the objective of having Northern Ireland 'STEM Ready' by 2030. This work will be fully recognised within the Skills Strategy, including the embedding of emerging actions within future skills action plans.

Proposed Commitment 9:

Recommendations emerging from the Women in STEM Working Group will be fully recognised in the Skills Strategy and subsequent skills action plans.

Careers Provision

A rapidly changing economy, where the labour market in the medium to long-term is very uncertain, makes study and career choices increasingly difficult and important. This will take on a new prominence in the economic downturn, which is expected to follow COVID-19. The labour market will be tighter, there will be fewer opportunities. For many young people leaving education, further study may be the best option. Given the right support and circumstances, this may also be a viable pathway for individuals who have lost work as a consequence of the pandemic, as an opportunity to upskill, or reskill.

Whatever the circumstances, careers advice – based on up to date labour market information and forecasts - is of central importance in developing individuals' lives and in the contribution those individuals will make to Northern Ireland's long-term economic prosperity. It is a key aspect of an effective Skills Strategy, which aims to address subject imbalances and drive economic growth.

The OECD's assessment, based on stakeholder feedback, is that careers education, advice and guidance is characterised by systemic fragmentation across the skills system. It identifies a lack of consistency across the various providers in schools, DfE's Careers' Service, FE and HE¹¹⁰. It calls for DfE, DE and DAERA to build on the progress delivered through 'Preparing for Success', by placing more emphasis on outcomes from career consultations - rather than metrics focused on number of engagements - combined with the development of "clear, common, transparent and accountable quality standards."

Proposed Commitment 10:

We will build on 'Preparing for Success', by developing and introducing new measures of careers guidance outcomes and by developing clear, common, transparent and accountable quality standards.

That same fragmentation is identified in the provision of careers guidance information. Unlike many OECD countries, Northern Ireland does not have a single online portal which aligns study opportunities with educational outcomes and local labour market needs. In the absence of such a facility, the OECD notes that study and career choices are often based on an individual's socio-economic status, gender and ethnicity, without significant reference to the realities of the emerging labour market. At lower levels of achievement, this can limit ambition - potentially related to the lack of individuals undertaking mid-level, vocational qualifications - and, at higher levels of achievement, leading to an oversupply in areas where employment opportunities are limited. In response, the OECD points to the need for a consolidated careers portal that aligns information on labour market needs and appropriate educational pathways.

Proposed Commitment 11:

We will invest in the development of a consolidated portal, providing open access to information on current and forecast labour market skill needs and applicable study/work opportunities.

The need for learner exposure to the world of work is also highlighted, as a key tool in informing student choice and as a means to promote careers in key strategic clusters. Government, and stakeholders, should facilitate greater engagement between business and the education sector, to provide age appropriate access to experiences of the 'real' world of work. This can include everything from employer talks in classrooms, through to the provision of 'year out' training/internships in further and higher education courses. It is acknowledged that both businesses and educators face barriers in participating in such activities. These should be balanced, however, against the benefits to individuals and employers of such programmes.

A commitment to enhanced employer and education engagement should be included in the new common standards framework and opportunities for individuals to engage with employers should be communicated through the consolidated portal.

Proposed Commitment 12:

We will enhance engagement between employers and the education sector to identify and publicise opportunities for individuals in education to engage with the world of work.

Supporting Our 10x Economy

As noted in the Strategic Context Chapter, our economic vision, 'A 10x Economy' identifies five key strategic clusters where Northern Ireland has the potential to be a global leader and which will drive our economic competitiveness:

- Digital, ICT and Creative Industries;
- Agri-Tech;
- Fintech / Financial Services;
- Advanced Manufacturing / Engineering; and

- Life and Health Sciences.

Drawing particularly on the evidence from Landfall Strategy Group¹¹¹, it is essential that such sectors are supported with bespoke skills development plans.

Under the final policy objective, ‘*Enhancing Digital Skills, Developing Our Digital Spine*’, we have already committed to the development of a Digital Skills Action Plan. While this will include a focus on social inclusion, improving the supply of mid-level and advanced digital skills is integral to the enabling technologies that will drive success in each of these clusters. In addition to this broad consideration of the digital skills that will drive key strategic clusters, it is proposed that we will work directly with leading businesses to develop bespoke skills action plans for each of these clusters.

Proposed Commitment 13:

We will develop bespoke skills action plans to support Northern Ireland’s key strategic clusters.

ii.) Creating a Culture of Lifelong Learning

As mentioned previously, addressing skills imbalances is an overarching objective in this proposed Strategy. It must be acknowledged, however, that the vast majority of the 2030 workforce has already completed compulsory education. We will not achieve the strategic objectives we have established by focusing on those who have not yet entered employment.

Northern Ireland’s participation rates in adult education are comparatively low. We lag behind counterparts across the UK, Ireland and fall below OECD averages. A cultural perception persists that formal education ends when individuals enter work, having achieved the highest qualification their ability and circumstances allow.

As Industry 4.0 drives rapid technological change in the workplace, there is a need to ensure that individuals have the opportunity to access the education they require to ‘upskill’, that is, to maintain the relevance of their skills and adapt to new technologies. Many other workers will have to ‘reskill’, as more jobs become vulnerable to automation.

Furthermore, the COVID-19 pandemic will leave many workers redundant and some sectors of our economy may never recover to their pre- COVID status. While we must recognise the devastation this has caused to many people across Northern Ireland, we must also recognise the opportunity it provides to enable individuals of working age to develop new careers, given the right support.

111 Ibid

Beginning to embrace these opportunities was a key aspect in DfE's COVID-19 response¹¹². Working closely with our delivery partners in further and higher education, we have placed an emphasis on providing qualifications and pathways to enable individuals to progress to post-compulsory education. At level three and above, qualifications were offered in key areas of digital skills and the health and social care sector, where real current and long-term pressures are evident. We also provided reskilling opportunities in the digital sector, to individuals affected by the pandemic.

This section does not rehearse the evidence set out in the '*Addressing Skills Imbalances, Driving Economic Growth*' section. It describes, however, how the challenges around skills imbalances will be shaped by the need to 'create a culture of lifelong learning.'

'Creating a Culture of Lifelong Learning' was one of themes which the cross-government Skills Strategy Project Board asked the OECD to investigate, as part of the Northern Ireland Skills Strategy Project. Three major opportunities were identified:

- Starting the development of a culture of lifelong learning early in life.
- Increasing adults' motivation to learn.
- Removing barriers for individuals and employers to adult learning opportunities.

Starting the Development of a Culture of Lifelong Learning Early in Life

'Creating a Culture' begins in compulsory education. There is a direct correlation between low levels of achievement at school and a reduced likelihood of engagement in lifelong learning. This has the effect of reinforcing inequalities and keeping lower skilled individuals at lower ends of the labour market.

As noted above, developing work in areas such as the 14 – 19 Project is well advanced in considering how we can better support young people to transition from compulsory education to further education and work. The enhancement of non-academic pathways towards vocational qualifications, such as higher level apprenticeships, is a key aspect. This has the potential to deliver improved outcomes for many young people and, in the longer term, is more likely to engage individuals in learning over the life course. The OECD's recommendations on careers, noted above, are also key in this area.

112 DfE (2020) *Dodds Announces Two Skills Initiatives in Response to the Pandemic*. Available from: <https://www.economy-ni.gov.uk/news/dodds-announces-two-skills-initiatives-response-pandemic>

Much of the OECD's findings focus on the development of digital and data literacy skills through compulsory education – a point returned to in the *'Enhancing Digital Skills, Developing Our Digital Spine'* section below. An additional aspect noted, however, is the significant progress in Northern Ireland's PISA (reading, maths and science) performance. It goes on to reflect on concerns raised by Northern Ireland stakeholders that the focus of compulsory education at Key Stage 4 shifts from the skills-based curriculum implemented in 2007, to an overarching focus on teaching young people to pass GCSEs.

Building on the need to address social deprivation, the OECD underscores how patterns of low skills outcomes and low aspiration can become endemic across generations in deprived communities. These are patterns that Government should confront, through targeted interventions in the skills system, from the very earliest years, to support young people to remain in education.

Firstly, it proposes that targeting of these interventions can be improved by the use of 'Super Output Areas', as deployed in the NIMDM, rather than the current system of targeting through larger 'wards'. There will be merit in assessing if, and how, more locally focused approaches to skills development can identify and support vulnerable children, and their families, to provide the best possible education opportunities and life chances. DE is already engaged in significant targeting of education interventions, but as we propose a whole-of-government Skills Strategy, there is a need to consider how the whole skills system can engage more cohesively.

Secondly, it recommends the centralisation of data across the school system, to improve the measurement of social disadvantage and monitoring of related policy interventions. In the long-term, such data can be integrated with outcomes' measurement from FE and HE, to provide the capacity for longitudinal assessments of pupil outcomes, with a particular emphasis on addressing social disadvantage. The creation of the Longitudinal Educational Outcomes database will allow DfE to monitor progression from school through post-secondary education and into the labour market. It is hoped that data from the Department of Education can be linked to data from the DfE towards the end of 2021; although the timescales are subject to change.

As previously noted, work is on-going by an Expert Panel tasked with bringing forward an Action Plan to address persistent educational underachievement linked to socio-economic disadvantage. The Action Plan and any associated recommendations are to be submitted to the Minister of Education by 31 May 2021.

Proposed Commitment 14:

We will assess the potential for more locally focused approaches, to support DE's policy interventions in relation to vulnerable children, particularly in areas of high social deprivation. This will include an assessment of how data can be better used to monitor pupil outcomes from education and the efficacy of policy interventions throughout the education system.

Increasing Adults' Motivation to Learn

The proposals outlined above are long-term. They are intended as strategic measures to be put in place, which will boost Northern Ireland's long-term performance in participation in lifelong learning, in the face of a rapidly changing economy and labour market.

Over the lifetime of the Skills Strategy, interventions are required to enhance participation in lifelong learning, to address forecast imbalances in the supply of skills to underpin our 10x economic vision and ensure everyone has access to the education and training that will allow them to reach their potential. Our initial approach is detailed in the '*Addressing Skills Imbalances, Driving Economic Growth*' section.

In accordance with the OECD's recommendations, however, there is a need to complement these initial proposals, and build on the broad range of opportunities for participation in lifelong learning which already exist, with "a single, comprehensive strategy, setting out a holistic vision for adult learning across different cohorts of learners."

The OECD notes that various DfE Strategies, relating to further education, higher education, apprenticeships and careers, all include significant and useful initiatives for adult learners. The diffuse nature of these interventions, however, means a focused, coherent message on the importance of lifelong learning is lacking and a clear vision for how adult education can contribute to our societal and economic outcomes is not articulated, or well understood.

The development of a '*Lifelong Learning Strategy*' is identified as a key means of focusing our thinking on intended outcomes, including how it will contribute to the PfG, '*A 10x Economy*' and the Skills Strategy. The development and implementation of the proposed Strategy should be complemented by a communications plan, which raises awareness amongst individuals and businesses and connects them with the guidance and opportunities that will enhance engagement.

As set out previously in this document and subject to the views of consultees, it is not our intention to develop a range of underpinning strategies. The emerging importance of lifelong learning will be recognised with the development of a project to promote lifelong learning and an associated action plan. Importantly, however, it will not establish a separate evidence base, unique strategic goals, or separate governance arrangements. Instead, an action plan will be developed to meet the challenges set out in the new Skills Strategy, covering all aspects and levels of post-compulsory education, and directly aligned to the achievement of the Skills Strategy's strategic goals. Oversight for the development and implementation of the action plan will sit within the same Skills Strategy governance structures proposed latter in this document.

Proposed Commitment 15:

We will develop a new lifelong learning project and action plan, directly aligned to the achievement of the strategic goals set out in the new Skills Strategy.

Removing Barriers for Individuals and Employers to Adult Learning Opportunities

An effective, whole-of-government, approach to lifelong learning, however, will not be successful, unless it fully acknowledges and addresses existing financial and social barriers which prohibit participation.

The OECD cites work pressures, financial costs and childcare/family responsibilities as the most significant barriers to participation in adult learning.

Finance

As shown in the following table, collated by OECD, a range of financial incentives already exists in Northern Ireland – this list is not exhaustive.

Scheme	Type	Target group	Description	Funding spent on adults over 25 (2018 academic year)
Essentials Skills	Subsidy	Low-skilled, full time and part-time learners above 16 with no level 1-2 qualifications	Learners can freely enrol in literacy, numeracy and ICT GCSEs-equivalent qualifications.	5,501 adults 25+ took part in 2017/18
Free provision of NQF Levels 1-3 courses	Subsidy	Low-skilled, full time learners above 16 undertaking level 1-3 qualifications	All full-time course at NQF Levels 1,2 and 3 are free for the learner. Providers are reimbursed for the qualification.	Not available
Tuition Fee Loan	Loan	Part-time of full-time learners with at least an upper-secondary qualification who are undertaking a NQF Level 4-6 Course above their highest level of qualification	For 2019/20, part-time students were able to borrow up to GBP 3 206.25 for the duration of the course. This does not generally cover the full costs of the degree (e.g. the typical total fee for a part-time undergraduate degree is GBP 5 625). For full-time students, the loan instead covers up to the full amount of tuition charged for higher education courses in the UK. In Northern Ireland, this was GBP 4 275 for the 2019/20 academic year. Learners can apply on the student Finance NI portal.	Full-time learners: GBP 10 341 646.71 Part-time learners GBP 730 820.13
Tuition Fee Grant	Subsidy	Part-time learners with at least an upper-secondary qualification who are undertaking a NQF Level 4-6 course above their highest level of qualification and have a yearly household income below GBP 25 420	The maximum grant available is GBP 1 230 to contribute to part-time tuition fee costs (this is a one-off payment). The actual amount given depends on three factors: study intensity, household income and fee costs. Learners can apply on the Student Finance portal.	GBP 1 493 670.51
Maintenance Loan	Loan	Full-time learners with at least an upper-secondary qualification who are undertaking a NQF Level 4-6 course above their highest level of qualification	The maintenance loan is to meet living costs during study for a full-time high education course, up to GBP 4 840. Learners can apply on the Student Finance NI portal.	GBP 8 320 094.37
Maintenance Grant	Subsidy	Full-time learners with at least an upper-secondary qualification who are undertaking a NQF Level 4-6 course above their highest level of qualification and have a yearly household income below GBP 41 065	The maximum grant is GBP 3 475 for students in a household with GBP 19 203 or less. Between a household income of GBP 19 204 and GBP 41 065, the maintenance grant gradually decreases in value. Learners can apply on the Student Finance NI portal.	GBP 6 462 654.24
Childcare subsidies	Subsidy	Full-time learners with at least an upper-secondary qualification who are undertaking a NQF Level 4-6 course above their highest level of qualification	With the Childcare Grant, for one child in childcare, students receive up to GBP 148.75 a week. For two or more children students can receive up to GBP 255.00 a week. Under the Parents Learning Allowance, parents receive between GBP 50 and GBP 1 538 depending on household. Income. Learners can apply on the Student Finance NI portal.	GBP 974 599.19

Figure 17: Financial Incentives for participation in further and higher education

In the OECD's assessment, this range of assistance provides a solid framework for financial support, but, if it is to support adaption to a developing culture of lifelong learning, some adjustments will be required. Firstly, childcare subsidies should be more widely available, extending the present provision for full time learners studying towards level 4 – 6 qualifications, to childcare support for all learners.

As set out previously, the dual purposes of the Skills Strategy are to address inequality and drive economic growth. The importance of enabling the lowest qualified adults to attain the basic level 2 qualification standard is to provide realistic labour market opportunities. In addition to labour market access, we want to enable individuals to work in 'better jobs' and meet the skills needs of a growing, prosperous 10x economy. Therefore, individuals in work must also be enabled to undertake part-time upskilling or reskilling opportunities, if we are to make progress on the strategic objectives proposed in this document.

Proposed Commitment 16:

We will develop proposals for the expansion of childcare support to enable all individuals with parental responsibilities to participate in lifelong learning.

Financial support is currently only applicable to individuals who are working towards a qualification beyond the highest level already achieved. As evidence from the Skills Barometer shows, the changing nature of the labour market, driven by Industry 4.0, requires us to rebalance the supply of qualifications in 'narrow' STEM areas and away from areas more typically associated with work in the public sector. To support this 'rebalance', and to drive development of Northern Ireland's key strategic clusters, it is proposed that individuals working towards level 6 and above qualifications in the most undersupplied subject areas should be exempt from this funding criterion. To ensure flexibility in approach, this should apply to full-time and part-time courses alike. In demand qualifications will be aligned to the strategic goals set out above: engineering and technology, mathematics, computer science and physical and environmental sciences.

Proposed Commitment 17:

We will review funding exemptions to ensure more individuals can participate in 'reskilling' opportunities, aligned to undersupplied qualifications in engineering and technology, mathematics, computer science and physical and environmental sciences.

The interventions proposed above focus on two of the three main barriers identified by the OECD: financial constraints and childcare responsibilities. Reflecting on the third barrier, 'too busy at work', the OECD identifies measures across Great Britain, which provide statutory training leave to workers in large companies (250+ employees), provided it is aligned to better performance in their current job. There are examples in other OECD countries which compensate workers, and their employers, for lost working time as training is undertaken.

A forthcoming OECD assessment of the scheme in England will draw attention to the limited impact of such training legislation, due to its focus on large companies – a finding relevant for Northern Ireland in considering a similar policy, given the predominance of SMEs in our economy. It will recommend, instead, that such legislation should be expanded, to enable low skilled workers in companies of any size to undertake training. Such an initiative would be a valuable intervention in Northern Ireland, as we aim to raise the proportion of the working age population qualified to level 2. While this may cause a challenge to many small companies, it would also provide a solution to the Employer Skills Survey findings that many employees lack the basic essential skills and digital proficiency necessary for effective function in their roles.

Proposed Commitment 18:

We will develop, and consult on, legislation to introduce training leave allowances for Northern Ireland employees.

A further recommendation suggests that greater flexibility in the delivery of learning is established, through the wider availability of modular learning approaches to mid-level qualifications. This can ensure that employees/employers can develop tailored learning packages, which suit their specific job role and the needs of employers. Delivery of such modules through online learning platforms, or through blended approaches where necessary, can increase the capacity of individuals to build professional development around their work and family lives.

In researching the option, the OECD identified three main barriers to the implementation of such an approach. Firstly, a modular approach increases the specificity of learning and potentially may limit sufficient demand to make the development and delivery of modular courses sustainable. Secondly, the reliance on awarding organisations to provide validation for qualifications was identified as an administrative burden. Finally, the current funding model is based on annual enrolment numbers, making it difficult to develop short, modular courses.

In response to the COVID-19 pandemic, FE colleges and DfE have worked collaboratively to implement the rapid delivery of a broad range of short-term, remote learning courses, based on evidence of demand from the Skills Barometer and the Employer Skills Survey. Whilst this aspect of the response should not be regarded as a recognition of the model proposed by the OECD, it provides a platform from which new approaches can be developed.

With regards to funding, the COVID-19 response was based on funding from outwith the annual budgetary process. This demonstrates the capacity of the further and higher education institutions to respond to emerging needs, when flexible funding arrangements are available. The long-term development of such an approach will rely on the implementation of multi-year funding arrangements, which afford the colleges the flexibility to develop and deliver modular approaches (see sections on *‘Investment in the Skills System’* in the Strategic Context and Policy Enablers Chapters).

In terms of demand, more robust structures for engagement with employers can inform the long-term viability of specific modular training provision, at local and regional levels. Combined with existing relationships between FE colleges and employers, such engagement can ensure that modular courses are designed in a more qualitative frame, to meet the needs of business, supporting development and expansion.

The OECD outlines related, successful, models from Australia and Denmark. The Australian example, in particular, emphasises how collaborative approaches across the FE sector could reduce the administrative burden by jointly deploying resources, a process which would be supported by the Curriculum Hubs model already introduced in Northern Ireland's FE sector.

Proposed Commitment 19:

We will work with the FE Sector to examine the development of remote/blended, modular learning approaches, tailored to the needs of individuals and their employers.

Better Use of Financial Incentives to Reduce Barriers for Employers

The OECD stresses that financial constraints are the most significant barrier to providing training to employees, followed by lack of time for staff to participate and lack of capacity to organise training. The OECD reflects on the well-known concerns of Northern Ireland employers around the Apprenticeship Levy; this point is explored in more detail in the 'Investment in the Skills System' section.

Beyond that, a strong programme of interventions already exists in Northern Ireland, including Invest NI's Skills Growth Programme and the Skills Focus, InnovateUS and Apprenticeships provision offered by DfE. While in some instances there will be a need for financial contributions from employers, these programmes are substantially funded. We do not believe, therefore, that a need exists for the creation of additional programmes to be designed and implemented. We do, however, need to focus on a refreshed communications strategy to raise awareness of existing programmes, connecting employers with the skills provision that can drive their businesses forward.

The OECD also highlights the barriers faced by small and micro businesses, in particular. There is limited value in courses being offered to a small number of employees. In this regard, the OECD suggests that local training funds are established to support collaborative approaches across businesses which require similar training provision.

The existing Skills Focus programme already allows this potential, when suitable connections between employers can be made. Furthermore, the OECD suggests that a local training fund is established to support SME access to training. These are key areas where enhanced sub-regional approaches to employer engagement (see policy enablers section) can identify employer need and support small and micro enterprises to develop their workforce.

Employability Skills, High Performance Working Practices and Leadership and Management

Employability Skills

Beyond ‘hard skills’ and formal qualifications, a feature of the changing labour market globally is the growing demand for individuals to have strong ‘soft’, or employability, skills. These range from the employment basics of time keeping and effective communication, through to the skills that will equip individuals to adapt in an uncertain future labour market such as complex problem solving, critical and analytical thinking¹¹³.

This is also demonstrated in research specific to Northern Ireland¹¹⁴, which notes that individuals with skills that are not easily automated - such as creativity, empathy, problem-solving and persuasion – are more likely to thrive in the emerging labour market. The development of such skills is embedded throughout the school curriculum¹¹⁵ (discussed further below), but care should be taken not to pinpoint this as a ‘future’ problem. Employers in Northern Ireland already highlight that many existing employees lack the people and practical skills required to maximise the potential of their businesses¹¹⁶.

The Skills Barometer¹¹⁷ also reflects this challenge, demonstrating the connection between employability skills and skills under-utilisation. Skills under-utilisation refers to employees who have achieved sufficient technical skills - as measured by qualifications - to work in jobs more advanced than their current roles demand. This is not a straightforward question of employability skills lacking, there are also questions surrounding the employer demand for skills e.g. employers setting minimum qualification requirements higher than necessary.

These themes are picked up by the OECD¹¹⁸, as it identifies the need for greater interaction between business and education, which enables business leaders to fully articulate the skills they need (technical and practical) from individuals undertaking education. This includes facilitating SME engagement, to ensure there is a two-way conversation about business needs and curriculum delivery.

113 World Economic Forum (2016) *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*. Available from: http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

114 UUEPC (2019) *Intelligent Futures: Working with Automation and Digitisation to Delivery Sustainable Employment and Growth*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/automation-in-northern-ireland-main-report.pdf>

115 CCEA (2020) *Curriculum*. In particular, see sections on Attitudes and Dispositions, Skills and Capabilities. Available from: <https://ccea.org.uk/about/what-we-do/curriculum>

116 Department of Education (UK) (2017) *Employer Skills Survey: Northern Ireland Slide Pack*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746495/ESS_2017_Northern_Ireland_Slide_Pack_v04.00.pdf

117 UUEPC (2019) *Northern Ireland Skills Barometer: Summary Report*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Barometer-2019-Summary-Report.pdf>

118 OECD (2020) *OECD Skills Strategy Northern Ireland*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

The employability skills challenge is not one that can be addressed through education alone, however. Work-based or ‘experiential’ learning, is the most effective means for students, at any level, to improve employability skills. As discussed previously, this relies on employers to engage in the provision of age-appropriate access to work experience opportunities.

International best practice demonstrates that regional, or sectoral, clustering of business interests can facilitate greater business engagement with and influence on, the skills system. This is particularly true for SMEs; participating in clusters can provide real influence, rather than acting as a lone voice. It not only facilitates influence on curriculum development, but can also support the establishment of closer relationships between business, schools and tertiary education institutions to identify and promote experiential learning opportunities.

High Performance Working Practices

Improving employability skills is an essential aspect of enabling the adoption of high performance working practices. The challenge is not only to develop the ‘right skills’, but also to use them effectively to extract the maximum benefit for businesses and individuals in a changing labour market¹¹⁹. Improving pay, developing pathways to better jobs, boosting innovation performance and delivering growth in Northern Ireland’s key strategic clusters are central to this proposed strategy. The OECD demonstrates the positive impact better skills utilisation has on individuals (increasing wages and job satisfaction), the economy (improved productivity and innovation) and on society (economic growth, better health, and increased political efficacy).

Northern Ireland’s skills utilisation challenge is illustrated by the 2019 Employer Skills Survey¹²⁰, where 35% of Northern Ireland employers identified skills under-utilisation in their businesses. Considering the previous Employer Skills Survey¹²¹, there is evidence that it is a rapidly developing issue in the Northern Ireland labour market, with a 9% increase over two years. Furthermore, skills utilisation is not an issue which has ever been directly addressed in Northern Ireland’s skills and economic policy sphere.

The solution, proposed by the OECD, is the adoption of high performance working practices (HPWP) which drive employees to learn, share ideas and empower them to contribute to the development of their businesses and to maximise the use of their skills.

119 Ibid

120 2019 Employer Skills Survey. Available from: <https://www.gov.uk/government/publications/employer-skills-survey-2019-uk-excluding-scotland-findings>

121 UK Commission for Employment and Skills (UKCES) (2016) *Employer Skills Survey 2015: Northern Ireland Slide Pack*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/704119/ESS_2015_Northern_Ireland_Slide_Pack_v12.pdf

The OECD defines four types of HPWP in the Northern Ireland Skills Strategy Report: flexibility and autonomy; teamwork and information sharing; training and development; and benefits, career progression and performance management. As demonstrated in the following tables¹²², Northern Ireland compares poorly when assessed against other UK regions on each of these indicators.

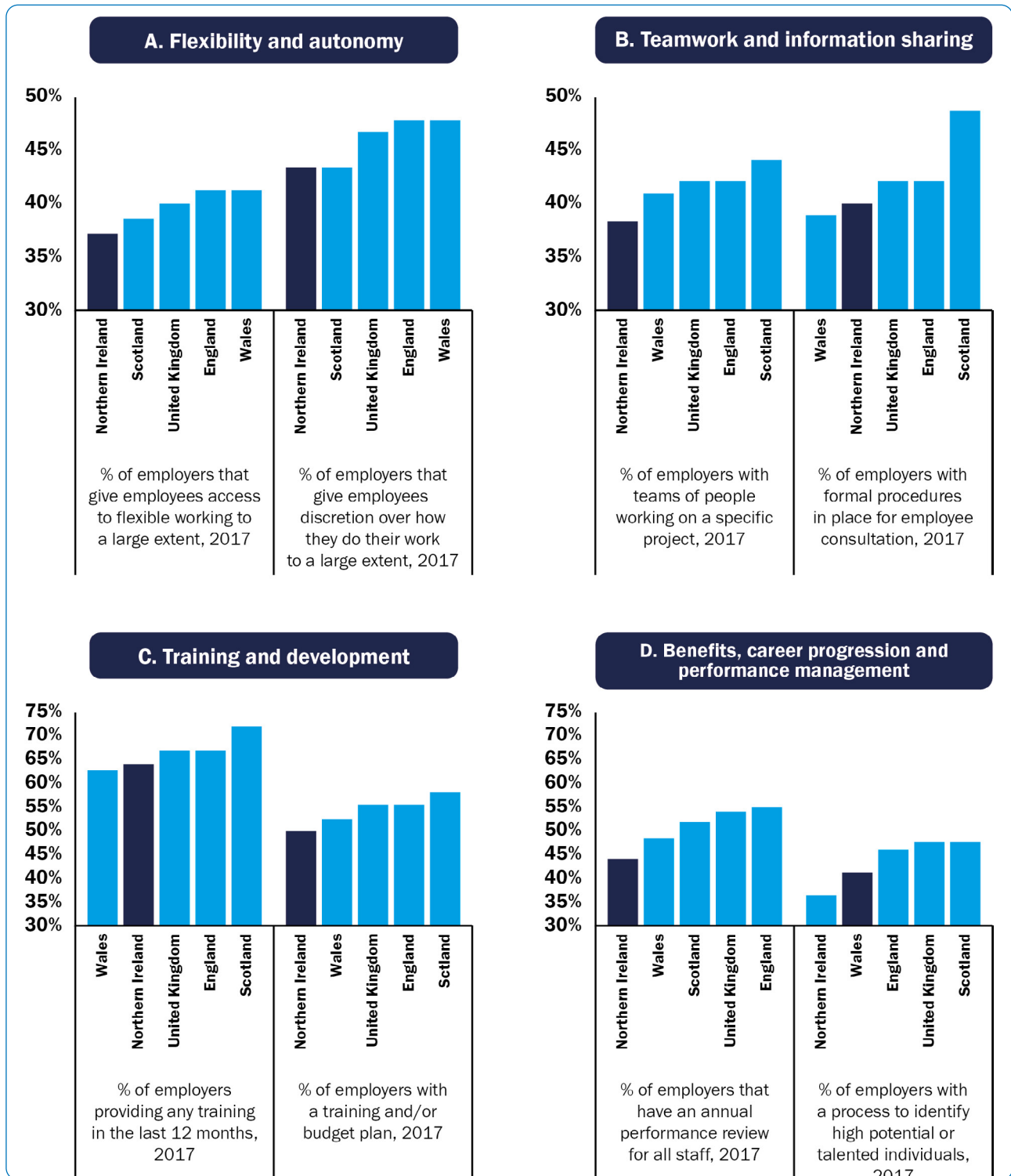


Figure 18: High Performance Working Practices in the UK.

Management and Leadership Capabilities

A key way to drive adoption of high performance working practices (HPWP) is to support business leaders through enhanced management and leadership training provision. The adoption of HPWP requires ways of working that break with traditional norms, a willingness to embrace the benefits of technology, empower employees and to realise the benefits of investing in their development. The need for new emphasis on management and leadership development was broadly supported by stakeholders throughout engagement exercises; workplace transformation should start at the top and was identified as crucial to unlocking the potential of our businesses¹²³.

A range of evidence underpins this recommendation: Northern Ireland has a much stronger reliance on family, as opposed to professional, management¹²⁴; adoption of effective management practices in Northern Ireland falls well behind many advanced economies in Europe¹²⁵; the OECD's assessment suggests that the average skill level of managers falls well below that of other OECD countries¹²⁶; and management and leadership skills are in short supply in the labour market¹²⁷. In addition, the OECD's research and stakeholder engagement identified a culture of risk aversion, which constrains the potential of many Northern Ireland businesses.

Management and Leadership was a key theme of *'Success through Skills – Transforming Futures'* and was underpinned by the *'Leading to Success'* Strategy. The interventions brought about through *'Leading to Success'* were recognised as comprehensive and the programme was positively evaluated. Research and engagement was completed towards the development of a new management and leadership strategy in 2015 but, unfortunately, ongoing public spending constraints at the time meant a new strategy was not published¹²⁸.

It is recognised that Invest NI and CITB (NI) continue to deliver management and leadership programmes, however, these organisations work with specific groups of companies. Evidence gathered throughout the development of this consultation, indicates strong stakeholder support for the development of a new management and leadership strategy, providing access to training programmes for businesses across Northern Ireland. The challenges faced by our economy, as a result of the COVID-19 pandemic, place greater emphasis on this as we look to support economic recovery and develop new strength in our economy in a rapidly changing global context.

123 Ibid

124 Economic Advisory Group (2013) *Competitiveness Index for Northern Ireland*. Available from: <https://eagni.com/wp-content/uploads/2015/06/Competitiveness-Index-for-Northern-Ireland-2013.pdf>

125 Centre for Economic Policy Research (2015) *Management and Productivity in the Private Sector*. Available from: <https://worldmanagementsurvey.org/policy-business-reports/policy-reports/policy-reports-industry/>

126 Ibid

127 Ibid

128 DfE (2020) *Evaluation of Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/publications/evaluation-success-through-skills-transforming-futures>

As with the development of a renewed approach to lifelong learning, it is not our intention to develop a distinct management and leadership strategy. Instead, we will develop a dedicated project and action plan, considering how the development of management and leadership provision can support the strategic objectives set out in the Skills Strategy and by recognising its broader influence on our economic vision, ‘A 10x Economy’.

The project will aim to promote the benefits of HPWP, improving job satisfaction and inspiring the innovative, progressive approaches to business development which can support the emergence of new opportunities and drive growth and competitiveness.

Proposed Commitment 20:

Under the auspices of the new Skills Strategy, DfE will develop a renewed approach to management and leadership in Northern Ireland.

Participation in Management and Leadership Programmes

On the surface, levels of participation in management and leadership training in Northern Ireland are comparable with UK averages: 62% of managers in 2017¹²⁹. In the following table, however, the OECD highlights the disparities which that hides¹³⁰:

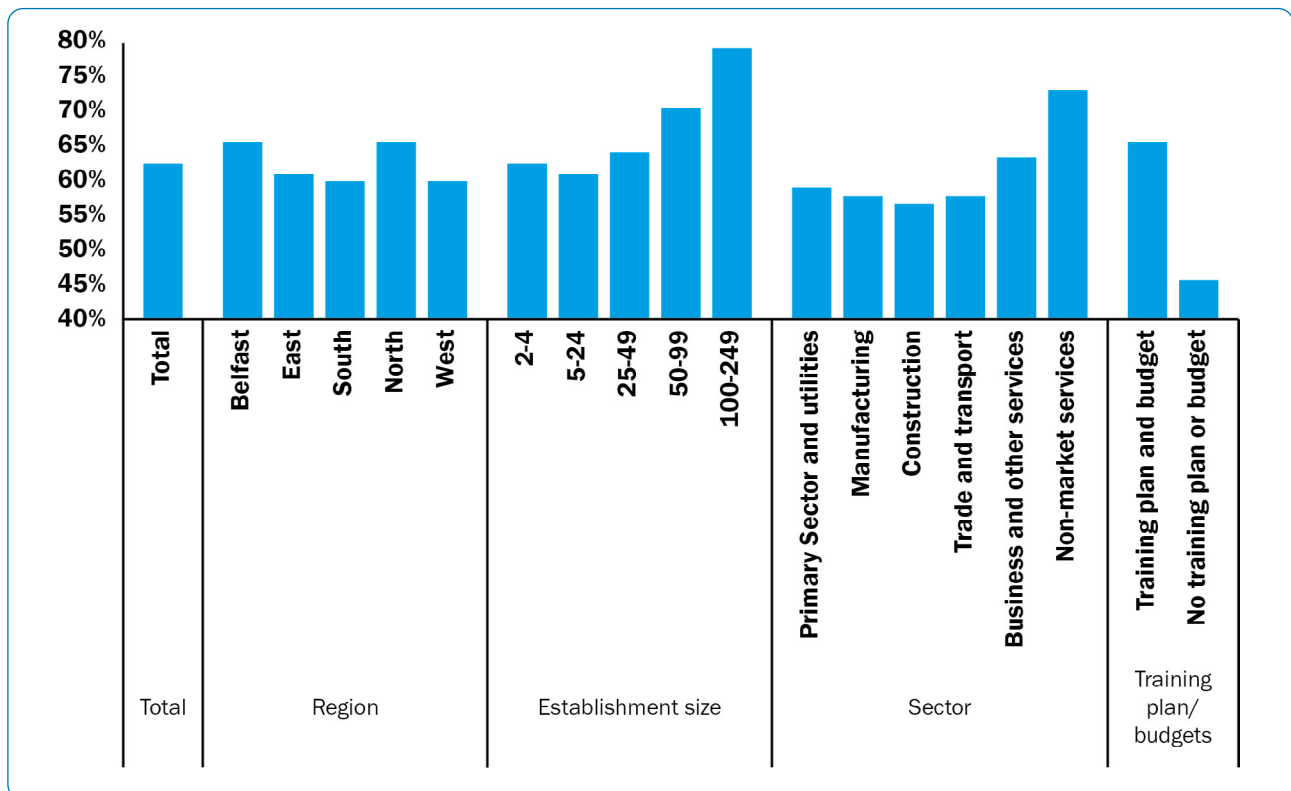


Figure 18: Participation in Management and Leadership Training in Northern Ireland

129 Ibid

130 OECD Skills Strategy Northern Ireland (Ibid), P.159

The overall picture is that employees in larger, service-based, businesses are more likely to participate in management and leadership training. In recognition of the importance of SMEs to Northern Ireland's economic prosperity, as well as the established need to promote balanced growth, addressing such disparities is a priority.

The OECD makes several observations in this regard. These observations are summarised below and will be considered in the emerging management and leadership action plan; no further proposed commitments are included under this heading.

Firstly, the OECD identifies the broad range of management and leadership programmes already available in Northern Ireland, but also notes the number of delivery organisations involved, making the training landscape complex and difficult to manage. This is a challenge most likely to impact upon small businesses which do not have the dedicated HR functions to identify training needs and appropriate provision.

Secondly, and potentially related to the above, many businesses remain unaware of the benefits of investment in training and development. Only 30% of businesses in Northern Ireland have dedicated training budgets (37% in the UK) and 45% have training plans (48% in the UK), despite evidence that low performing organisations perform significantly worse than those that participate in management and leadership training¹³¹.

There is a need, therefore, to ensure the new approach to management and leadership incorporates a communications strategy, to promote the benefits of management and leadership training and ensure that the landscape is easily navigable to employers. It should incorporate an assessment of the benefits which may be gained from other proposals within this consultation, for example, the promotion of management and leadership as an aspect of the lifelong learning strategy, or how we can connect with small businesses, at a local level, through local councils and community planning.

A third point raised by the OECD - and related to the absence of dedicated training budgets in Northern Ireland businesses - is that many small businesses find the financial constraints of engaging in management and leadership training too significant. To address this, financial support measures need to be put in place. DEL's 2007 Strategy, *'Leading to Success'* was underpinned by funding of approximately £2 – 3 million per annum, funding which has decreased substantially in recent years¹³².

131 Chartered Management Institute (2012) *The Business Benefits of Management and Leadership Development*. Available from: http://leonardbusiness.hosting5.idnet.net/wp-content/uploads/2013/01/CMI-Penna-Research-Business_Benefits_of_MLD-pdf.pdf

132 Ibid

The Northern Ireland Skills Council (see governance section), should ensure that a dedicated budget is made available for the delivery of management and leadership provision. However, the action plan should include a rationalisation of current provision to minimise duplication and funding should be prioritised to reach those businesses which find it most difficult to participate in such training.

Empowering and Engaging the Workforce

Throughout the development of this consultation, an enhanced level of collaboration between government, business and industry has been placed at the forefront. While there are policy levers that government can utilise (detailed below), there is also an onus on our businesses to address key issues such as the low skills, low pay trap which constrains our economic development¹³³ and limits opportunity for individuals. Many employees lack interest in taking on higher level roles¹³⁴, yet almost half the workforce (43%) expressed that they were unhappy in their current roles¹³⁵. The share of employees moving from low to mid, or high-skilled positions is extremely low (2.5% compared with 6% in the UK). This is of considerable concern given the context, set out in this document, of the need for rapid progression towards a higher skilled labour market, if Northern Ireland is to remain competitive in the global economy.

The OECD advocates the need for a cultural change, which drives a change in employee behaviour and motivation. The Report proposes the adoption of ‘high road’ strategies, “where employees and their skills are viewed as an integral part of a business’ competitive advantage, rather than ‘low-road’ strategies, where labour is considered a commodity and a cost to be minimised.”

This is a further consideration to be examined, as a new approach to management and leadership is developed. As mentioned in relation to a communications plan, promotion and the training itself, should highlight the benefits of investing in employees through training, progression opportunities, pay or other financial benefits. It should demonstrate that maximising employee potential and utilising their skills to the full can boost productivity; where these benefits to the business are realised, employees should be rewarded.

133 Institute for Public Policy Research, Scotland (IPPR) (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/files/2018-07/ni-skills-july18.pdf>

134 Ib

135 Investors in People (2017) *Job Exodus Trends: 2017 Employee Sentiment Poll*. Available from: <https://media.drewberry.co.uk/IIP-Job-Exodus-Trends-2017-employee-sentiment-poll.pdf>

As noted previously, there is a significant onus on business to drive engagement and empowerment of the workforce. The role of government is limited to promotion and awareness raising campaigns, as well as incentivising businesses, particularly small businesses, where resource constraints pose a significant barrier to engagement. It has also been noted how existing programmes, such as Skills Focus, Innovate Us and Higher Level Apprenticeships can fulfil these functions. Other recommendations within this consultation should facilitate awareness raising of those programmes and greater engagement between government, business and the education system, to better define skills needs and make a significant impact on skills utilisation.

The following government led incentive scheme is proposed. We will introduce a business pledge, where employers formally endorse a number of principles regarding employee engagement and empowerment. These principles will reflect key aspects of a series of work quality indicators to recognise and promote companies that are fully engaged in the development of their staff, the economy and the wellbeing of our society.

Medium and large companies (50 or more employees) will need to subscribe to the pledge, and actively promote its principles, before they receive support through NI Executive funded support programmes. While we will actively encourage businesses of all sizes to take and promote the principles of the *'Better Jobs Pledge'*, we must ensure that it does not become a further constraint on small business growth. To promote fairness, we will ask business leaders and employee representatives to co-design the *'Better Jobs Pledge'*.

In the context of the post- COVID recovery, this will support the avoidance of some of the downsides evident in Northern Ireland's recovery from the 2008 recession. It will help us to take the opportunities, however painfully brought about, presented by the COVID-19 pandemic.

Following the financial crisis in 2008, Northern Ireland had the slowest recovery of any of the UK's 12 regions. Some of that may be attributable to our starting point, but a key flaw was an overarching emphasis on the total number of jobs / levels of employment. This emphasis was executed at the expense of improving productivity, wealth creation, wage growth and sustainable economic prosperity¹³⁶.

As we aim to recover from the economic impact of COVID-19 and support economic prosperity in the post-EU exit environment, emphasis must be placed on a range of employment principles captured in the forthcoming set of work quality indicators. As part of a comprehensive, cohesive approach to economic renewal, the skills system has a vital role to play in focusing its resources on the skills and jobs which offer real growth opportunities for Northern Ireland's businesses and citizens.

136 PWC (2016) *Northern Ireland Economic Outlook*. Available from: <https://www.pwc.co.uk/who-we-are/regions/northernireland/nieo-130916.pdf>

Proposed Commitment 21:

We will introduce a business pledge to recognise and promote employers who actively engage with principles of the work quality indicators. Businesses with 50+ employees must subscribe and actively promote the principles of the 'Better Jobs Pledge' prior to engagement with publicly funded support programmes.

Raising Engagement and Empowerment in the Northern Ireland Civil Service

As we introduce a policy, such as the 'Better Jobs Pledge' the Northern Ireland Civil Service (NICS), as one of Northern Ireland's biggest employers, needs to be at the forefront of increasing employee empowerment, engagement and skills utilisation. This can drive improvements in the effectiveness, efficiency and quality of government in Northern Ireland.

Skills under-utilisation, for example, is particularly high in the NICS, with 44% of workers having skills and qualifications more advanced than required for their job. The NICS People Survey¹³⁷ notes many positive aspects, including that civil servants are interested in their work, feel challenged by it and are broadly positive about their managers and teams. There are some key challenges, however, relating to the narrative above on HPWP namely, dissatisfaction with pay and benefits, leadership and managing change and pathways for career development. In addition, a weak performance on adaption of technology has been identified.

The OECD identifies a range of interventions, which have been put in place to address these issues, such as the Innovation Strategy¹³⁸ which recognised government's role in being an innovation leader and proposed actions such as:

- developing a more innovative and open public sector;
- the appointment of innovation champions within each Government Department;
- greater use of partnerships and secondments; and
- embedding innovation and creativity throughout training programmes.

The NICS People Strategy¹³⁹ included four themes:

- A well-led NICS, underpinned by actions to support management and leadership performance;
- An outcomes-focused NICS, empowering staff and building career development pathways which boost experience and expertise;
- A high-performing NICS, focusing on strategic workforce planning, improved performance management and development of more flexible working;

137 NISRA (2020) *Northern Ireland Civil Service People Survey 2019*. Available from: <https://www.finance-ni.gov.uk/sites/default/files/publications/dfp/NICS%20people%20survey%202019%20benchmark%20scores.pdf>

138 Northern Ireland Executive (2014) *innovateNI: Innovation Strategy for Northern Ireland 2014 – 2025*. Available from: https://www.economy-ni.gov.uk/sites/default/files/publications/deti/Innovation-Strategy-2014-2025_2_0.pdf

139 NICS HR (2018) *NICS People Strategy 2018 – 2021*. Available from: <https://www.finance-ni.gov.uk/sites/default/files/publications/dfp/nics-people-strategy-2018-21.pdf>

- An inclusive NICS, where diversity is embraced and developed.

Nonetheless, the results of the People Survey demonstrate an ongoing need for cultural change which, in common with the overall recommendations on management and leadership, should start from the top. Firstly, there is a need to place greater emphasis on the training of NICS leaders in the soft skills required to drive cultural change and the broad adoption of HPWP, which can boost autonomy, skills use, innovation and employee engagement. Secondly, there is a need to emphasise new approaches to employee empowerment and knowledge acquisition, by the use of methods such as peer-to-peer learning, external training and work shadowing, as well as ensuring employees have more autonomy to make decisions and structure their work.

Finally, the OECD also suggests that the actions included in the Innovation and People Strategies need to be fully implemented, with more specific measures of success and more dedicated monitoring and evaluation of progress.

Proposed Commitment 22:

The NICS will take steps to mark itself out as a leader in the adoption of High Performance Working Practices and the development of management and leadership skills in Senior Civil Service grades.

Developing Employability Skills in a Changing Labour Market

This focus on leadership and management and skills utilisation has been purposefully aligned to ‘*Creating a Culture of Lifelong Learning*’. The HPWP noted throughout this section demonstrate a strong coherence with the ‘employability’ skills deemed essential for effective participation in the workforce of the future, as highlighted at the beginning of this section. They are also the key skills which drive entrepreneurship and innovation¹⁴⁰.

It is difficult to pin down an agreed definition of employability skills, as different organisations apply different orders of nuance and use different language. The definition of skills sets provided by the World Economic Forum¹⁴¹ is one of the most comprehensive and is specifically tailored towards an assessment of need in the emerging UK economy. It does, however, tend towards complexity and higher level skills:

- Analytical thinking and innovation
- Creativity, originality and initiative
- Active learning and learning strategies
- Technology design and programming
- Complex problem solving

140 Crayford, J.; Fearon, C.; McLaughlin, H.; & van Vuuren, W. (2012) *Affirming Entrepreneurial Education: Learning, Employability and Personal Development*. Available from: <https://www.emerald.com/insight/content/doi/10.1108/00197851211231450/full/html>

141 World Economic Forum (2018) *Future of Jobs Report*. Available from: http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf

- Critical thinking and analysis
- Leadership and social influence
- Systems analysis and evaluation
- Reasoning, problem solving and ideation
- Emotional intelligence

A less formal, more accessible, summary is provided by the OECD¹⁴². The ability to:

- Communicate
- Work in teams
- Lead
- Solve problems
- Self-organise

These themes and the importance of a progressive approach to the development of employability skills are already recognised in the Northern Ireland School Curriculum¹⁴³, the FE Strategy¹⁴⁴ and the HE Strategy¹⁴⁵. Given evidence that individuals leaving the education system are not ready for employment¹⁴⁶, however, there is value in working through new government, business and education engagement structures, on a discrete project to assess how our approach to developing employability and entrepreneurial skills can be improved. This should include defining what employability skills means in the Northern Ireland labour market and proposing a series of actions which can shape existing provision towards better outcomes.

Proposed Commitment 23:

We will develop a discrete, collaborative project, to define what employability skills means in the Northern Ireland labour market and propose a series of actions to improve the performance of our education system.

iii.) Enhancing Digital Skills, Developing Our Digital Spine

As set out in the Strategic Context Chapter, technology is rapidly transforming our lives and workplaces. Research and stakeholder engagement conducted throughout the development of this consultation document repeatedly emphasised the now critical importance of digital skills development in Northern Ireland.

142 OECD (2017) *Future of Work and Skills*. Available from: https://www.oecd.org/els/emp/wcms_556984.pdf

143 Ibid

144 Department for Employment and Learning (2016) *FE Means Success: The Northern Ireland Strategy for Further Education*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/FE-Strategy%20- FE-Means-success.pdf>

145 Department for Employment and Learning (2015) *Graduating to Success: A Higher Education Strategy for Northern Ireland*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/del/Graduating%20to%20 Success-Higher%20Education%20Strategy.pdf>

146 UUEPC (2019) *Northern Ireland Skills Barometer: Summary Report*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Barometer-2019-Summary-Report.pdf>

The social and economic necessity of this could not have been more starkly portrayed than through the consequences of the COVID-19 pandemic. It has highlighted the growing digital divide, as those who could use technology did so, to stay in contact with family and friends and to minimise risk, by remotely accessing essential services. Similarly, in our labour market, many individuals continued to work remotely, while considerable numbers of others, largely lower skilled individuals in elementary occupations, faced furlough or redundancy.

This is not a problem we can eradicate - there will always be an aspect of our economy which relies on face-to-face customer service and practical, 'hands-on' labour – but it does expose the increasingly essential presence of digital skills, and digital access, in our society and labour market. It is incumbent upon Government to empower individuals to take the social, and labour market opportunities that digital skills afford.

Research from the Office of National Statistics (ONS)¹⁴⁷ demonstrated the high correlation between digital exclusion and social exclusion. Significant swathes of Northern Ireland are assessed to have a high or medium risk of digital exclusion¹⁴⁸. This is based on a combined assessment of access and skills issues and this highlights the importance of making reference to ongoing efforts to improve access across Northern Ireland¹⁴⁹. What is clear, however, is that basic digital skills are a significant factor in Northern Ireland, with 32% of the population aged 16 – 65 having low or no digital skills. It should be acknowledged that this research is three years old and, in a period of rapid change, may have altered. Nonetheless, there is clear evidence of an emerging digital skills issue in our society with the more recent ONS Survey showing Northern Ireland having the highest proportion of non-internet users of any UK region.

Likewise, the Employer Skills Survey¹⁵⁰ continues to evince that basic digital skills are a contributor to skills gaps in their businesses. This relates to both the existing workforce and remains a challenge in recruitment. This is reflected again in the Skills Barometer, with ICT qualifications undersupplied at the mid-levels and computer science degrees significantly undersupplied at higher levels.

The Skills Strategy is designed to support the development of a successful, prosperous, small advanced economy – 'A 10x Economy'. Over the next decade, we must build on the work ongoing in schools to develop digital skills and place increasing emphasis on the development of digital capability in our workforce.

147 Office for National Statistics (ONS) (2019) *Exploring the UK's Digital Divide*. Available from: <https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetandsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>

148 Citizens Online / BT (2017) *Digital Resilience, Digital Partnership: A Baseline of Digital Inclusion in Northern Ireland*. Available from: <https://www.finance-ni.gov.uk/sites/default/files/publications/dfp/Digital%20Inclusion%20Research%20Report%20FINAL%20ISSUE%20171024.pdf>

149 DfE (2020) *Project Stratum*. Available from: <https://www.economy-ni.gov.uk/topics/telecoms/project-stratum>

150 Department for Education (UK) (2018) *Employer Skills Survey 2017: Northern Ireland Toolkit*. Available from: <https://www.gov.uk/government/publications/employer-skills-survey-2017-northern-ireland-toolkit>

The CCEA has developed a digital skills and curriculum framework¹⁵¹. It draws on a Report produced by the House of Lords Select Committee on Digital Skills¹⁵² and provides a useful concept, which can be extended across all ages to profile the ‘digital spine’ that is required to meet the needs of Northern Ireland’s social and economic development. It identifies three levels of digital skills: Digital Citizen, Digital Worker and Digital Maker. As the CCEA’s remit extends only to level 3 qualifications, this Report demonstrates that there is a need for a robust educational pathway in digital qualifications, spanning early years to post-graduate provision.

Digital Citizens

The CCEA defines Digital Citizens as people with the skills to participate in digital aspects of society safely, and without hindrance. In *The Tech Partnership’s* assessment, basic digital skills are aligned to five key areas: *managing information* securely; *communicating* with others safely; *transacting* (buying and selling, managing personal finance, accessing services such as a universal credit application); *problem solving* (using the internet to gain advice on solving common problems, or queries); and *creating* basic digital content, such as a social media post, or a text document.

The development of ‘digital citizens’ is an essential step in economic development, however, the primary focus at this level is to tackle deepening social inequalities. As defined by the CCEA’s work, there is a key role for the compulsory education system in the provision of a strong basis of digital education, which enables individuals to use technology safely and effectively.

In the post-compulsory sector, there is a need to support adult learning in basic digital education across society. This will not only provide familial support for the development of young people’s education, but also ensure we make progress on addressing digital and social exclusion. This is particularly true, when considered alongside proposals elsewhere in this document, to expand remote learning provision.

Digital Workers

Digital workers have a sufficient level of digital skills to make them applicable in the workplace. The number of jobs which require digital skills has grown rapidly in recent years. This is a trend which is expected to continue, as automation replaces many of the tasks historically carried out by humans. Over the next decade, the most significant impact will be on jobs filled by individuals with low or no qualifications.

151 CCEA (2020) *Digital Skills and Curriculum Framework*. Available from: <https://ccea.org.uk/downloads/docs/ccea-asset/Resource/Digital%20Skills%20Curriculum%20%26amp%3B%20Qualifications%20Framework.pdf>

152 House of Lords Select Committee on Digital Skills (2015) *Make or Break: The UK’s Digital Future*. Available from: <https://publications.parliament.uk/pa/ld201415/ldselect/lddigital/111/111.pdf>

This need not be a negative story. It is forecast that the overall number of jobs will increase substantially, as new technologies support substantial productivity gains. It does create, however, the burning platform for rapid intervention in the skills of the population. It emphasises the need to devote our collaborative resources to support individuals with low or no skills to achieve higher qualifications. Taking advantage of new technologies in our economy will rely on our ability to develop the capability of our workforce to adapt¹⁵³.

This is a key driver for investment in mid-level skills, through education and lifelong learning. Workers in all sectors need the professional and technical skills to effectively engage with the technologies that will apply in their chosen careers. As advancement continues apace, there will need to be a willingness to continue to develop knowledge. Business investment in training and the development of modular approaches to learning can make a significant impact in this regard¹⁵⁴.

Digital Maker

Makers will be the creators of digital technology, individuals who work in digital careers or with new and emerging enabling technologies. Northern Ireland's tech sector is growing and provides one of the focal points for Northern Ireland's 10x Economy. Talented individuals must be supported throughout their education journey to cultivate these skills and be encouraged to choose appropriate pathways to support the development of Northern Ireland's key strategic clusters.

Digital Skills Development in Northern Ireland

The OECD¹⁵⁵ describes how the changing nature of the labour market requires the adoption of a skills-based curriculum with a strong emphasis on social¹⁵⁶, digital and data literacy skills. These points are echoed, and expanded on, by the UUEPC¹⁵⁷:

“In order to help citizens develop to become an effective part of the workforce for the future, the education system must instil in children an ability to deeply understand technology and extract and utilise data effectively, not just how to use a machine and read figures. This forward thinking model is required to develop a culture of innovation and help to futureproof the economy.”

153 UUEPC (2019) *Intelligent Futures: Working with Automation and Digitisation to Deliver Sustainable Employment and Growth*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/automation-in-northern-ireland-main-report.pdf>

154 Ibid

155 Ibid

156 See above section in Employability Skills and High Performing Working Practices in 'Creating a Culture of Lifelong Learning

157 Ibid

Despite stakeholders agreeing that the adoption of a skills-based curriculum in schools in 2007 had been successful, overall¹⁵⁸, the OECD identified stakeholder concerns that insufficient emphasis was placed on digital and data literacy. It recommends the development of a ‘digital spine’ model throughout education, drawing on international best practice models from Sweden and Australia. The OECD also highlights the substantial investment that DE has put into ICT infrastructure in schools, but – drawing on UK wide evidence¹⁵⁹ - suggests that Northern Ireland has a lower comparative standard of using ICT effectively in the classroom.

The primary focus on the development of digital skills, as set out in the OECD Report, is on adaption of the school based curriculum as a recommended precursor to ‘*Creating a Culture of Lifelong Learning*’. The OECD’s recommendations are based in the context of preparing young people for a future in a rapidly changing and uncertain labour market. As in reports from several other sources cited throughout this consultation document, it identifies teacher CPD as a key recommendation:

- *Expand professional development opportunities in technology-friendly pedagogies for new and existing teachers, to improve use of ICT tools in the classroom.*

The regularity with which similar recommendations emerge from research means there can be little doubt that this is a recommendation which should be addressed through this Skills Strategy. A second OECD recommendation is to:

- *Revise the compulsory curriculum in the light of emerging megatrends to focus on the development of digital and data literacy skills.*

The surrounding narrative pitches the ‘digital spine’ idea around the approach adopted in Australia, where ICT is taught through all subjects and organised around five dimensions, which are broadly in line with those identified by The Tech Partnership, detailed above. A review of the Northern Ireland curriculum¹⁶⁰ indicates, however, that ICT is already embedded throughout the school curriculum, from pre-school through to Key Stage 4. From one perspective, this points back to the need for teacher CPD, to ensure the effective use of digital technology in the classroom. Unsurprisingly, this is only part of the picture. A review of digital education was not one of the key themes which the OECD investigated and as stated, these recommendations were made in the context of ‘*Creating a Culture of Lifelong Learning*’.

158 See previous section on ‘*Creating a Culture of Lifelong Learning*’

159 The NI sample size is too small to disaggregate from UK data.

160 CCEA (2020) *Curriculum*. Available from: <https://ccea.org.uk/about/what-we-do/curriculum>

Evidence from NI Screen¹⁶¹ also highlights the CPD issue, but adds recommendations on the need to: improve guidance on the strategic leadership of digital education in schools; take further action to address inequality in access to digital education, concerning both equipment and teacher expertise; and the need for parental engagement in supporting children's digital education. These factors are also recognised in Sweden's National Digitalisation Strategy¹⁶².

These points are echoed in the Report from the Digital Select Committee, which adds that digital education should be taught with the same status as numeracy and literacy. It also notes that the whole talent pipeline of primary, secondary, further and higher education needs to adapt to the changing nature of the labour market. From a lifelong learning perspective, Deloitte¹⁶³ points out that digital skills are becoming obsolete at an increasing rate, making continuous modular approaches to learning and business investment in skills development a priority.

What stands out, is that the overarching focus of research and recommendations on digital education in Northern Ireland is on primary education. It is accepted that improvements in this area are key in laying the foundations for the workforce of the future.

We should not assume, however, that secondary and tertiary education is fulfilling the needs of our society and economy. There is substantial evidence on the need for the development of digital skills, not only in the evidence cited herein. A brief look through the MATRIX NI Library¹⁶⁴ demonstrates the central importance of digital skills to all of Northern Ireland's key strategic clusters. This is not matched, however, with significant, published, research on what needs to change in our skills system, if demand is to be met.

Our Response

In 2016, a MATRIX Report on Northern Ireland's Digital Sector¹⁶⁵ called for the development of a 3-5-10 year Digital Skills Investment Plan. Since then, as illustrated here, the need for such an intervention has continued to grow, particularly as digital skills are central to the new and emerging technologies, and consequently the key strategic clusters, that will drive our economic prosperity.

161 NI Screen (2019) *Study into the Development of Digital Education in Primary Schools in Northern Ireland*. Available from: <https://www.northernirelandscreen.co.uk/wp-content/uploads/2020/01/Digiskills-Full-Report.pdf>

162 Swedish Education Ministry (2017) *National Digitalisation Strategy for the School System*. Available from: <https://www.regeringen.se/4a9d9a/contentassets/00b3d9118b0144f6bb95302f3e08d11c/nationell-digitaliseringsstrategi-for-skolvasendet.pdf> (In Swedish, translated through Google translate)

163 Deloitte Insights (2017) *Careers and Learning: Real Time, All the Time*. Available from: <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2017/learning-in-the-digital-age.html>

164 MATRIX: The Science and Industry Panel for Northern Ireland (2019) *The MATRIX Library*. Available from: <https://matrixni.org/library/>

165 MATRIX NI (2016) *Matrix Digital ICT Report: Foresight and Horizon Scanning*. Available from: <https://matrixni.org/wp-content/uploads/2016/03/2016-Matrix-Digital-ICT-Report.pdf>

The key proposals included in this document all apply to the digital sector: basic digital literacy needs to be improved to address deepening social and economic inequalities; the rapid development of digitally focused professional and technical skills to support economic growth and expansion and higher level skills are required, to drive innovation in digital, and other key strategic clusters. First time education leavers are a crucially important cohort of the population and attention must be paid to how we strategically develop teaching and the curriculum. Over the next decade, however, lifelong learning and employer engagement will play a key role in ensuring individuals can sustain career progression, or reskill towards this growing sector.

The importance and the urgency of this work is evident. At present, it is hindered by the lack of substantive evidence on how the skills system needs to adapt to support Northern Ireland's digital potential. A range of high quality reports do exist, from a variety of bodies. These often focus, however, on specific aspects of digital education (e.g. primary education¹⁶⁶) the needs of business in different sectors¹⁶⁷ or more general research focusing on the impact of automation¹⁶⁸.

This consultation document proposes that an expert panel of individuals from industry and education are brought together to consider the changing digital skills needs of our economy and identify the substantive changes required in digital education to meet the current and emerging needs of our labour market. In the context of a whole-of-government skills strategy, this should not focus on individual aspects of education, but consider the development of digital learning pathways from early years' education through to third level and lifelong learning provision.

The Panel will be appointed by, and report to, the Northern Ireland Skills Council, to produce a specific Digital Skills Action Plan for Northern Ireland. The Action Plan will sit under the Skills Strategy as a key strand of work.

Proposed Commitment 24:

An expert panel of individuals from business and education will be appointed to develop a specific Digital Skills Action Plan for Northern Ireland.

166 NI Screen (2019) *Study into the Development of Digital Education in Primary Schools in Northern Ireland*. Available from: <https://www.northernirelandscreen.co.uk/wp-content/uploads/2020/01/Digiskills-Full-Report.pdf>

167 See a range of reports across the MATRIX NI Library: <https://matrixni.org/library/>

168 Johnston, R., Victor, K., Heery, L. & McCausland, G. (2020) *Intelligent Futures: Working with Automation and Digitisation to Deliver Sustainable Employment and Growth*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/automation-in-northern-ireland-main-report.pdf>

Chapter 5 – Policy Enablers

The evidence gathered throughout the development of this consultation document makes it clear that effective delivery of the objectives set out in Chapter 4 will not be achieved, if they are not supported by significant improvements in how we govern the skills system. This consultation proposes three key areas of action for the development and implementation of the Skills Strategy:

- Enhancing Policy Cohesion;
- Building Strong Relationships; and
- Investment in the Skills System.

Many of these issues have already been highlighted through discussion of the proposed policy objectives. This section is intended to reflect more specifically on the actions, and structures, that will underpin this Strategy. Well-functioning governance arrangements are essential to an effective, sustainable skills system¹⁶⁹.

Skills policy is complex. Within the context of constrained financial and human resources, difficult, strategic choices must be made, finding the balance between growing economic prosperity and developing social equality. The perspectives of a wide range of stakeholders have to be incorporated: schools, colleges, universities, students, employers, employees, local and national government. Skills policy is also set in the context of an uncertain future, driven by the emergence of Industry 4.0. We must forecast where skills demand will lie and prepare our population to fulfil anticipated needs for jobs that do not yet exist. This document has been developed in the context of COVID-19 and following the UK's exit from the EU, the strategic choices we make now will set the tone for our economic and social prosperity for years to come.

Opportunities lie ahead but to grasp them, we must build consensus in our policy choices across government, with key stakeholders and with civic society as a whole. We must also acknowledge that Northern Ireland is not blessed with the natural resources which will underpin global competitiveness; the skills of our people are our primary resource. To take advantage of this rich resource, we must invest in the potential of our people. We must prioritise investment in those skills which will drive growth in Northern Ireland's most competitive strategic clusters and the skills which will give all our people the opportunity to contribute to, and benefit from, our growing economic prosperity.

169 OECD (2020) *OECD Skills Strategy Northern Ireland*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

i.) Enhancing Policy Cohesion

The evaluation of *'Success through Skills – Transforming Futures'* found that one of the most significant flaws in the Strategy was that it was developed, and widely seen, as a DEL Strategy. In this context, it did not acknowledge the broad complexities and interdependencies that affect well-functioning skills systems. From the outset, the development of the new Skills Strategy has focused on creating a whole-of-government approach to skills, under the auspices of an outcomes-focused PfG.

In this way, we can build consensus around the main priorities for the skills system: how primary and post-primary education links with tertiary education policy; how outcomes from further and higher education are linked to economic development; how we support individuals to engage effectively with the labour market; and how we develop greater equality of opportunity across our society. The outcomes of our skills system will contribute to the achievement of PfG outcomes both directly and indirectly.

All of Northern Ireland's departments either fulfil a crucial role, or retain a key interest in, the development and delivery of skills policy. DfE has primary responsibility for post-compulsory education policy (further education, higher education, apprenticeships and post-16 careers advice and guidance) and for economic policy where the talents of our people are a key pillar of our success. DE has overall responsibility for early years, primary, secondary and special educational needs, it also manages careers advice and guidance in the school setting. DfC is responsible for engagement with individuals who are currently looking for work and those who are economically inactive. DAERA has responsibility for skills development in relation to its primary areas of policy and, in particular, the College of Agriculture, Food and Rural Enterprise (CAFRE). Similarly, DoH has responsibility for the development of the health and social care workforce. In addition, TEO holds overall responsibility for PfG and DoF sets budget allocations and runs NISRA – a key partner in economic and skills analysis.

Policy interest from DoJ's and DfI's perspective may not be so obvious. We do know, however, that a direct correlation exists between an individual's educational achievements and the likelihood that they will engage in criminal activity – a key consideration in an outcomes-focused approach to PfG. Moreover, education is a key aspect of the support delivered to prisoners. The development of our infrastructure has a major skills demand in construction and related sectors. We must also recognise that infrastructure development is a key economic pillar in the attraction of jobs and the internal mobility of labour, particularly in the context of developing greater regional balance.

The development of this consultation document has been undertaken with the oversight of a Project Board, involving senior officials from all departments and regular liaison across government. This is an arrangement that we propose will continue as we finalise and implement the Skills Strategy.

Based on recommendations from both the OECD¹⁷⁰ and Landfall Strategy Group¹⁷¹¹⁷², emerging from international best practice, this should be designed with the expressed purpose of developing complementary skills policies, which minimise duplication¹⁷³. In addition, it should be chaired by the Minister for the Economy and continue to include senior representatives¹⁷⁴ from other key departments. Ministerial inclusion is designed to enhance accountability, political buy-in and drive active participation.

In order to drive collaboration and complementarity, a new Northern Ireland Skills Council should incorporate representatives from key government departments with an interest in the skills system and maintain an oversight role in the commissioning and development of all skills policies and related research.

We want to look beyond central government, however, developing our connections with local government. This can support the pooling of human and financial resources, in the interests of achieving better value for money and delivering better regional balance and better outcomes for our people and businesses.

As a first step, it is proposed that the Chair of the Society of Local Authority Chief Executives in Northern Ireland (SOLACE NI) is invited to take a permanent seat on the proposed Northern Ireland Skills Council.

International research¹⁷⁵ demonstrates the prevalence of sub-regional approaches to the implementation of education and skills policies. This can support direct engagement with low skilled workers, develop connections to local communities - enabling a focus on addressing deprivation and social inequality - and the capacity to build stronger relationships with local businesses and educators to meet emerging skills needs.

A range of provision already exists at sub-regional levels, through the work undertaken by councils, FE colleges, careers offices, jobs and benefits offices and the Department for Communities, more broadly. What is lacking, is an overarching strategic approach to skills development with local communities across local government, local stakeholders and central government.

170 Ibid

171 Landfall Strategy Group (2019) *The Strategic Integration of Skills and Innovation Policy in Northern Ireland: A Small Economy Perspective*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/strategic-integration-of-skills-full-report.pdf>

172 Landfall Strategy Group (2020) *Institutional Design to Support an Integrated Economic, Skills and Innovation Policy Agenda*. Unpublished, can be shared by the Department on request.

173 Appendix A details some of the key interfacing strategies already being implemented, or in development, where there is a need to ensure collaborative, complementary approaches to the development of skills policy.

174 'Senior representatives' refers to Senior Civil Servants, Assistant Secretary or above.

175 OECD (2020) *OECD Skills Strategy Northern Ireland: Assessment and Recommendations*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

The OECD identifies the following opportunities¹⁷⁶:

- Increase vertical co-ordination between central and local government;
- Encourage the development of the skills elements of ‘community plans’ to reflect local needs, but also recognise regional [Central Government] strategy; and
- Increase information exchange and co-ordination between employers, education and training providers and local and central government.

It must be acknowledged that DfC already has a considerable presence at local government levels, including significant employer outreach functions and direct engagement with the community planning process. This is supplemented by local connections in DfE, through the all age Careers Service and Invest NI offices across Northern Ireland.

The OECD’s proposals have been well supported through stakeholder engagement to date and DfE officials are continuing to work with colleagues across central and local government to examine how sub-regional approaches can be effectively implemented. There are a range of potential options for consideration, for example, a model similar to the Republic of Ireland’s ‘Regional Skills Fora’¹⁷⁷ could be adopted, but there are questions on whether it should be tied to City and Growth Deals, the 11 local government areas and the community planning process, or some other arrangement. Questions also remain on effective governance, for example, how do we ensure regional cohesion in the development of sub-regional planning?

The Department fully accepts this recommendation and recognises its popularity with stakeholders. Our primary goal, however, is to develop sub-regional approaches, which support individuals and businesses to reach their potential; not to establish further layers of bureaucracy and complexity, which will not serve the public interest. As noted above, the key is in ensuring that the *Northern Ireland Skills Council* retains an oversight function which can drive cohesion and collaboration in a regional context, whilst offering the flexibility to support sub-regional economic development.

Proposed Commitment 25:

A new Northern Ireland Skills Council will be responsible for the implementation of the Skills Strategy. It will have ministerial leadership and include senior representatives from all government departments and local government.

Proposed Commitment 26:

The Northern Ireland Skills Council should maintain an oversight role in the commissioning and development of all skills policies and related research.

176 Ibid

177 Department of Education and Skills (2020) *Regional Skills: Partnerships for Skills*. Available from: <https://www.regionalskills.ie/>

Proposed Commitment 27:

We will continue to work across central and local government to develop and implement sub-regional approaches to skills development, tailored to the needs of local businesses and communities.

ii.) Building Strong Relationships

Another issue which has featured repeatedly throughout this document and received strong support throughout stakeholder engagement, is the need to build stronger relationships between government, industry and education.

Best practice research demonstrates the need for a strategic, regional advisory body to be established¹⁷⁸. A proposed Northern Ireland Skills Council should include representatives of business, employee representatives, leaders of the education sector (from HE, FE and EA/ CCEA) and individuals with expert knowledge on the emerging demands of the skills system, for example, the UUEPC.

The body should be established with close ties to the existing Economic Advisory Group - ideally with shared representation - to improve the development of a coherent, agreed vision for Northern Ireland's economy and skills system. The Council should also retain the capacity to appoint sub-committees to provide advice on discrete projects, such as the development of the lifelong learning and management and leadership action plans proposed in this document. It is recognised, however, that the advisory landscape is already complex.

It is proposed, therefore, that it is in need of reform and rationalisation. In recent years, a range of different advisory bodies have been developed. The Strategic Advisory Forum (and underpinning Sectoral Partnerships) for Apprenticeships, the Careers Advisory Forum and the NEET Advisory Group are recent examples, but these were preceded by a variety of other bodies such as the Sector Skills Councils, Workforce Development Forums, the STEM Business Group and this list is not exhaustive. Furthermore, this assessment only relates to bodies based in DfE.

Feedback has indicated frustration amongst stakeholders at the lack of co-ordination within Government, as various departments and policy interests within those departments engage with the business community and wider civic society. Consultations are often issue-focused and result in the emergence of a range of advisory bodies with overlapping responsibilities. This places significant demands on stakeholders to engage in, and make sense of, a complex policy landscape. As engagement and participation on advisory bodies is generally offered pro bono, many key interests (particularly SMEs) simply do not have the resource capacity to offer their perspectives. Ultimately, advisory bodies with the longevity to become institutionalised sources of consistent, coherent, progressive policy advice, which can support the development and implementation of a long-term vision for the skills system, are not afforded the opportunity to flourish¹⁷⁹.

178 Ibid

179 Ibid

It is proposed, therefore, that a review of the existing advisory landscape is conducted and, where possible, advisory functions should be centralised in the proposed Northern Ireland Skills Council. As noted above, this does not prohibit the formation of sub-committees to advise on discrete projects, however, this should be done on the direction of the Council, which will retain oversight of such projects.

Proposed Commitment 28:

The Northern Ireland Skills Council will be established to provide long-term, consistent, advice on the development and implementation of all aspects of skills policy. It will include representation from business leaders, senior representatives of education and employee representatives from trades unions.

Proposed Commitment 29:

Under the auspices of the Northern Ireland Skills Council, we will review and rationalise the existing (skills) advisory infrastructure.

Structures broadly aligned to these proposals have already been put in place to oversee the development of this consultation document. This will ensure key stakeholders have a lead role in shaping the membership, and terms of reference, for the proposed Northern Ireland Skills Council.

It is envisaged that the role of the Council will extend beyond mere advice. We want to create a long-term structure, where knowledge and ideas are developed towards a shared vision for Northern Ireland's economic and social prosperity. It is well established, that in order to maintain active stakeholder participation over prolonged periods, there is a need for participants to see that their advice is taken seriously, acted upon and, where it is not acted upon, that there are clear reasons for not doing so¹⁸⁰. For this reason, it is proposed that meetings of the Northern Ireland Skills Council are planned regularly, to enhance accountability, transparency and the scope for effective two-way conversations about what is possible.

Proposed Commitment 30:

Employer, employee and education institutions will be given a key role in determining the terms of reference for the Northern Ireland Skills Council.

Gender Diversity

As Skills Barometer evidence highlights, qualifications in STEM subjects remain central to Northern Ireland's economic development. At the graduate and post-graduate level, rebalancing qualifications towards STEM is the principal focus.

180 OECD (2019) *Strengthening the Governance of Skills Systems: Lessons from Six OECD Countries*. Available from: <https://www.oecd-ilibrary.org/sites/3a4bb6ea-en/index.html?itemId=/content/publication/3a4bb6ea-en>

The most significant areas of demand at mid-levels, however, are also weighted towards STEM. It is clear, therefore, that education pathways to careers in in STEM-focused jobs, for people of all abilities, must be a key focus of the Skills Strategy.

With the right level of focus and accountability, many of the challenges present in STEM sectors can be addressed through the proposals already set out in this document. What stands out as a particular challenge in Northern Ireland's key strategic clusters - and the uptake of qualifications typically aligned to them - is gender imbalance.

The 2018 'Women in STEM' report¹⁸¹ states that "not nearly enough of the region's younger generation pursue a future in STEM. By the age of 18, 83% of the region's total future workforce have turned their back on a career in those very priority sectors which are expected to deliver growth and prosperity for all... that so many girls in particular opt out makes this the single biggest challenge facing NI's government and employers today."

Addressing the lack of gender diversity in Northern Ireland's in qualifications aligned to our new and emerging enabling technologies, needs to be a key area of focus as this Strategy is implemented. There is not a single area where we can point to the need for change. A focus on gender diversity at all levels of education and through employer engagement, will be necessary.

In education, we should consider how issues such as teaching practices, the curriculum, language and culture, careers advice and employer engagement effect attitudes to STEM study and careers. We should work with employers to ensure issues such as pay and terms and conditions of employment do not deter females from STEM careers. The impact of public policy should be under the spotlight as well. We need to empower representatives of women in the workforce to shape, and where necessary challenge, the education, skills and broader labour market policies which impact upon females.

It is proposed, therefore, that one of the first actions of the Northern Ireland Skills Council should be to appoint a diversity sub-committee to ensure gender diversity and equality of opportunity remain at the top of the education, skills and employability agenda as the Skills Strategy moves from development to implementation.

Proposed Commitment 31:

The Northern Ireland Skills Council should appoint a sub-committee to consider how gender, and other diversity issues, can be better addressed across education, skills and employment policies and practices.

181 MATRIX NI (2018) *Women in STEM*. Available from: <https://matrixni.org/wp-content/uploads/2018/05/Women-in-STEM-Report-final-20-may.pdf>

A Flexible, Agile Approach

A further common point of feedback from stakeholders, throughout the engagement process, was that the Skills Strategy lacked the flexibility and agility to respond in a rapidly changing labour market. This was also noted in the evaluation of ‘*Success through Skills – Transforming Futures*’¹⁸², which went on to recommend a strong emphasis on action, demonstrated through implementation plans which are subject to review.

This document sets out a programme of action required to modernise Northern Ireland’s skills system. The proposals are wide-ranging and, when considered alongside resource constraints, it will not be possible to implement everything in the short-term. A summary of the proposed commitments is included at Annex A, alongside a proposed, high level plan of action, broken down over the next 2, 5 and 10 years.

The key point is that work needs to be prioritised and flexibility must be retained to adjust plans, as unforeseen events impact upon our economy and labour market. Management of this process will be undertaken by the Northern Ireland Skills Council.

Proposed Commitment 32:

The new Skills Strategy will be underpinned by 2, 5 and 10 year action plans.

Work Quality Indicators

As set out in ‘*A 10x Economy*’ we want to deliver better jobs with better wages for all our people. To this end, DfE has been working with NISRA to develop a set of work quality indicators, which are intended to ensure that more employment opportunities in Northern Ireland improve the standard of living in our society and boost the economic returns for our economy. Whilst work on the development of the indicators was largely suspended during the Assembly’s period of suspension, and stifled again as we devoted our resources to the COVID-19 response, some progress has been made. Initial proposals highlight that a range of indicators will be developed to define what is meant by a better job. It is likely to include measures such as payment of a decent wage, job security, job satisfaction and work/life balance.

As noted above, Government’s main role in this area is to incentivise businesses and we have proposed the creation of a ‘*Better Jobs Pledge*’ and associated benefits for participants in medium and large businesses. Ultimately, however, it is businesses – not Government - that create jobs and more importantly, create ‘better jobs’. The Northern Ireland Skills Council will, therefore, have a key advisory role in shaping the future development of the proposed pledge.

182 DfE (2020) *Evaluation of Success through Skills – Transforming Futures*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/Skills-Strategy-Evaluation.pdf>

iii.) Investment in the Skills System

During the OECD's stakeholder engagement in Northern Ireland, stakeholders ranked funding as the most important issue for improving Northern Ireland's skills system. Stakeholder's concerns are well founded. Analysis carried out within DfE based on HM Treasury's *Country and Regions Analysis*¹⁸³ finds that public sector spending on education¹⁸⁴ in Northern Ireland has declined by 14% since 2010/11, as measured in today's prices.

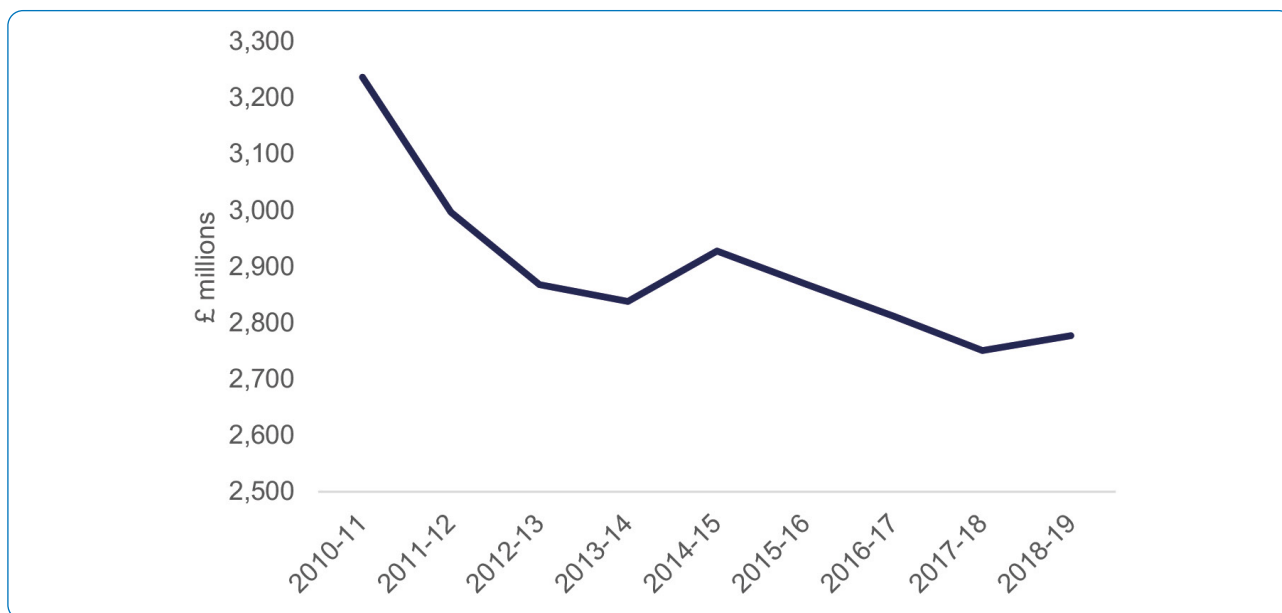


Figure 19: Expenditure on Education and Skills in Northern Ireland
Source: HM Treasury

As a proportion of all public expenditure in Northern Ireland, investment in education and skills has fallen from 14.8% in 2010/11 to 12.7% in 2018/19 using figures published by HM Treasury. To put some (real terms) figures around that, expenditure on:

- primary and pre-primary education has fallen by 1% (£6 million);
- secondary education, including further education, has fallen by 16% (£202 million);
- tertiary education has fallen by 40% (£216 million);
- skills in industry have fallen by 48% (£60 million);
- other resource has increased by 4% (£22 million).

183 HM Treasury (2019) *Country and Regional Analysis: 2019*. Available from: <https://www.gov.uk/government/statistics/country-and-regional-analysis-2019>

184 Refers to primary, secondary, tertiary levels and skills in industry.

It is acknowledged that these reductions were made in the face of reduced public spending overall. The 2% reduction in education funding, over the period, however, stands in contrast to the 0.5% reduction in identifiable expenditure on services overall. The most substantial reductions were in the early years of the ‘austerity agenda’, but the trajectory of investment in education remains downward¹⁸⁵. Restoring investment in education to 2010/11 levels would require additional investment of £461 million¹⁸⁶.

Short-term skills initiatives are a crucial asset in attracting business and supporting local businesses to meet urgent needs. Initiatives, such as ‘Assured Skills’, have served the Northern Ireland economy well in recent years¹⁸⁷. Real strategic value, however, is achieved when we firstly minimise duplication, by aligning the outcomes of our skills system to the long-term vision for our economy and secondly, by providing the appropriate funding to education institutions to realistically deliver those outcomes.

Northern Ireland faces some challenges in achieving this long-term planning for social, economic and skills development. There are issues which are challenges to skills systems everywhere: investment in skills carries an inherent risk for individuals, businesses and governments, as the future is uncertain¹⁸⁸; the conflict that exists between electoral cycles and long-term investments in the face of constrained resources¹⁸⁹. The problem in Northern Ireland has been exacerbated through a recent history of single year budget agreements, which prohibit certainty and stifle long-term strategic planning¹⁹⁰.

These challenges are a key reason for the whole-of-government approach set out above. The significant body of evidence referenced throughout this document, consistently places education and skills at the very centre of the outcomes we want to see. A successful Northern Ireland will rely on the prioritisation of investment in our primary resource, the skills of our people. As the OECD’s Skills Strategy Northern Ireland states:

“Northern Ireland must ensure that the importance of skills for future economic growth, social inclusiveness and well-being is understood by all major stakeholders, and in particular, political decision makers. Consequently, the creation of a shared commitment among political decision makers is central for a common long-term strategy for skills policy that guarantees sustainable funding arrangements.”

185 IPPR (2018) *The Skills System in Northern Ireland: Challenges and Opportunities*. Available from: <https://www.ippr.org/research/publications/the-skills-system-in-northern-ireland>

186 Ibid (rounded to the nearest million).

187 Ibid

188 OECD (2020) *OECD Skills Strategy Northern Ireland*. Available from: <http://www.oecd.org/publications/oecd-skills-strategy-northern-ireland-united-kingdom-1857c8af-en.htm>

189 Gonzalez-Ricoy, I. & Gosseries, A. (2016) *Institutions for Future Generations*. Oxford University Press, Oxford, United Kingdom.

190 Ibid

It is these ideas that have driven the proposals on consensus building across stakeholders in the skills system. Political consensus and commitment, however, is essential. For these reasons, the Skills Strategy will be agreed and published by the Northern Ireland Executive.

Proposed Commitment 33:

The Skills Strategy will be endorsed, as a whole-of-government Strategy, by the Northern Ireland Executive, recognising the key, strategic importance of education and skills development to our social and economic prosperity.

A significant programme of action is proposed in this document. Delivery of the objectives will require substantial change in the investment trends which have marked the last decade and will involve the capacity to plan and implement long-term structural change. The OECD and ‘New Decade, New Approach’¹⁹¹, both recognise the benefits of multi-year budgets in enabling this activity. Whilst we do not wish to pre-empt the outcomes of the previously mentioned ‘Independent Review of Education’¹⁹² it is important to summarise these key messages which, to date, have found strong stakeholder support.

‘New Decade New Approach’ explains that the education system, as currently designed in Northern Ireland, is not sustainable. The ‘Independent Review of Education’ will therefore explore areas of duplication, segregation or fragmentation in the current system and assess the impact of such issues on delivery, costs and outcomes.

It is acknowledged that this review may take some time to initiate and complete. In the interim, particularly as we recover from the economic impact of COVID-19 and support our businesses and workforce to grow and develop in the post-EU context, there is a need for short-term investment to begin to develop and implement the proposals set out in this document.

Proposed Commitment 34:

A ring-fenced skills fund will be developed to provide new opportunities in the labour market and support the skills development of the working age population as we emerge from the COVID-19 pandemic and prepare for the economic changes brought about by our exit from the EU.

There are two other major areas of concern with regard to investment in the skills system: the end of the European Social Fund and the Apprenticeship Levy.

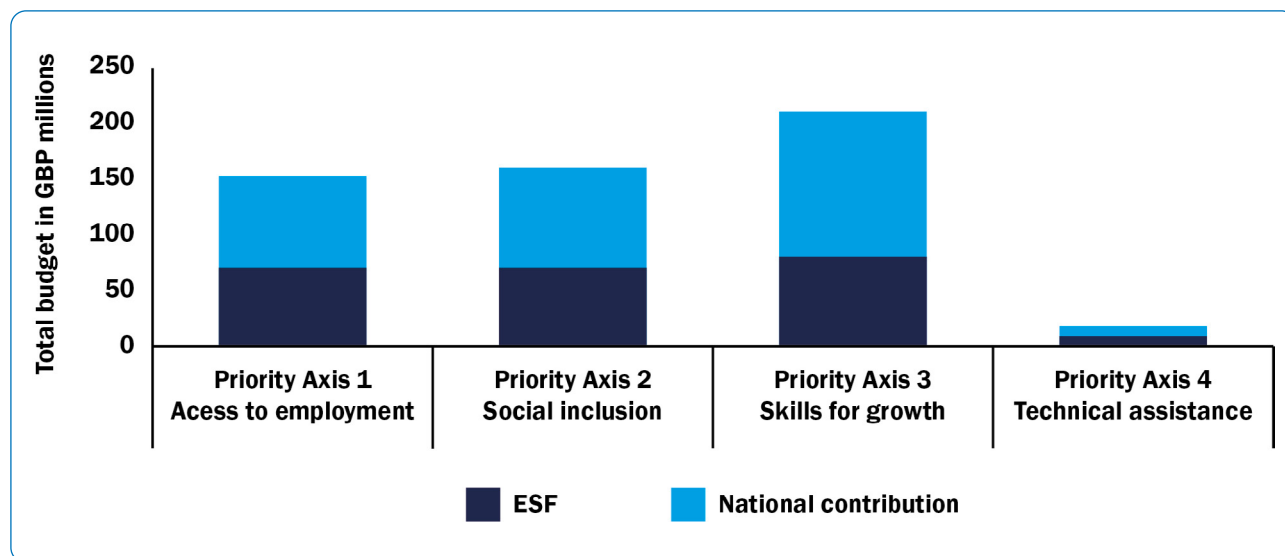
European Social Fund (ESF)

191 Governments of the UK and Republic of Ireland (2020) New Decade, New Approach. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/856998/2020-01-08_a_new_decade_a_new_approach.pdf

192 See Commitment 7 above.

The UK's departure from the EU means that monies invested in skills, received through ESF, will cease once exhausted (currently estimated to be 31 March 2023). This involves substantial funding for programmes related to the objectives of the proposed Skills Strategy, as set out in the following table developed by the OECD¹⁹³.

ESF and National Contribution for Priority Areas – Northern Ireland 2014 - 20



ESF funding will be replaced by the ‘*Shared Prosperity Fund*’, although the value of the Fund remains unclear and there are ongoing concerns around how allocations will be governed between the national and devolved governments of the UK¹⁹⁴. A ‘Barnett Formula’ calculation, for example, would differ from the current needs based assessment, which provides more per capita funding to Northern Ireland and other devolved regions. Further questions also remain on how funding will be aligned to priorities, how monitoring and evaluation of programmes will be conducted and how long spending periods will last.

That being said, ESF is tied to specific thematic objectives of the Europe 2020 Strategy. With overriding authority for the ‘*Shared Prosperity Fund*’ either in Westminster, or with devolved administrations, there may be opportunities to more specifically tailor available monies to the identified needs of Northern Ireland’s skills system¹⁹⁵. In any case, the continued delivery and financing of existing programmes will need to be considered within the proposed review of funding for Northern Ireland’s skills system. Outcomes will be dependent on future considerations concerning the governance of the ‘*Shared Prosperity Fund*’.

193 Ibid

194 Institute for Government (2020) *European Structural Funds after Brexit: the Shared UK Prosperity Fund*. Available from: <https://www.instituteforgovernment.org.uk/explainers/european-structural-funds-after-brexit>

195 Ibid

The Apprenticeship Levy

The Apprenticeship Levy was introduced in 2017. Employers across the UK, whose annual paybill exceeds £3 million per annum, pay 0.5% of their total paybill to the Levy. As a matter of ‘reserved’ policy¹⁹⁶, money raised through the Levy is paid to HM Revenue & Customs¹⁹⁷. In England, this revenue is used to directly fund apprenticeships. Skills policy, however, is a devolved matter. Funding is, therefore, redistributed to each of the UK’s devolved administrations, through the Block Grant, in line with Barnett formula calculations¹⁹⁸.

As a result, there is no direct correlation between the money paid by employers based in Northern Ireland and the funding which comes back to Northern Ireland through the Block Grant. The net financial outcome has been no overall increase in Northern Ireland’s Block Grant, as the previous Barnett consequential for apprenticeships was withdrawn and furthermore, public sector organisations in Northern Ireland must pay into the Levy¹⁹⁹.

Whilst employers in Northern Ireland can avail of government support in existing apprenticeship programmes²⁰⁰, the absence of specific, ring-fenced funding resulting from the Levy means it is broadly perceived, and in effect, acts as a tax on large employers in Northern Ireland²⁰¹. This is a point of significant frustration to many employers and one which was raised repeatedly throughout stakeholder engagement, as this document was researched and developed. As the OECD notes²⁰², this works as a disincentive to our overall intentions, driving wage growth, employer investment in skills and the delivery of better jobs, overall.

The lack of overall change in the Block Grant remains a fact and is a consequence of policy developed at the UK level. This consultation highlights the need for a full review of investment in the skills system, which should include consideration of the impact of the Apprenticeship Levy. In the interim, DfE is continuing to work closely with employers to further develop the apprenticeship offer.

196 Torrance, D. (2020) *Reserved Matters in the United Kingdom*. Available from: <https://commonslibrary.parliament.uk/research-briefings/cbp-8544/>

197 HM Revenue & Customs (2016) *Policy Paper: Apprenticeship Levy*. Available from: <https://www.gov.uk/government/publications/apprenticeship-levy/apprenticeship-levy>

198 Ibid

199 DfE (2019) *Northern Ireland Response to the UK Government Apprenticeship Levy*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/consultations/economy/apprenticeship-levy-consultation-departmental-response.pdf>

200 NI Business Info (2017) *Introduction of the Apprenticeship Levy*. Available from: <https://www.nibusinessinfo.co.uk/content/introduction-apprenticeship-levy>

201 DfE (2019) *Apprenticeship Levy Consultation Findings*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/consultations/economy/apprenticeship-levy-consultation-summary-of-findings.pdf>

202 Ibid

Annex A: Summary of Proposed Commitments

Policy Objectives			
Addressing Skills Imbalances, Driving Economic Growth			
1	We will examine the potential to mainstream remote learning provision in key areas of essential skills, employability skills and digital skills for individuals and employers.	Page 47	2 years
2	DfE will work directly with DfC to support collaborative approaches between local and central government to develop the education and training provision required to underpin both the Skills Strategy and the 'Employability NI' Strategy.	Page 48	2 years
3	The outcomes from the 'Transition of Young People into Careers (14 – 19) Project', jointly lead by DE and DfE will be recognised within the new Skills Strategy.	Page 49	2 years
4	DfE will review how it collects information on the destination and outcomes for FE College leavers, to improve evidence on long-term outcomes for FE qualifiers.	Page 50	2 years
5	We will ensure Northern Ireland's Further Education sector has the resource and capability to deliver its dual objectives of providing essential, entry level pathways to education and professional and technical skills, to support economic and social prosperity.	Page 50	5 years
6	A review of level 4 and 5 'HE in FE' education will be conducted. Recommendations and actions arising from the review will be incorporated in the implementation of the Skills Strategy"	Page 51	2 years
7	Relevant Government departments and arms-length bodies will contribute fully to the 'Independent Review of Education', announced by the Minister of Education in December 2020, to ensure our education system is sustainable, economically relevant and equipped to deliver the best outcomes for our children, young people and society as a whole.	Page 53	2 years
8	We will increase collaborative investment between Government, research institutions and business in post-graduate education and research, which support the development of Northern Ireland's key strategic clusters set out in 'A 10x Economy'.	Page 53	2 years
9	Recommendations emerging from the Women in STEM Working Group will be fully recognised in the Skills Strategy and subsequent skills action plans.	Page 55	2 years
10	We will build on 'Preparing for Success', by developing and introducing new measures of careers guidance outcomes and by developing clear, common, transparent and accountable quality standards.	Page 55	5 years
11	We will invest in the development of a consolidated portal, providing open access to information on current and forecast labour market skill needs and applicable study/work opportunities.	Page 56	5 years
12	We will enhance engagement between employers and the education sector to identify and publicise opportunities for individuals in education to engage with the world of work.	Page 56	5 years
13	We will develop bespoke skills action plans to support Northern Ireland's key strategic clusters.	Page 57	2 years
Creating a Culture of Lifelong Learning			
14	We will assess the potential for more locally focused approaches, to support DE's policy interventions in relation to vulnerable children, particularly in areas of high social deprivation. This will include an assessment of how data can be better used to monitor pupil outcomes from education and the efficacy of policy interventions throughout the education system.	Page 59	5 years

Policy Objectives			
15	We will develop a new lifelong learning project and action plan, directly aligned to the achievement of the strategic goals set out in the new Skills Strategy.	Page 60	2 years
16	We will develop proposals for the expansion of childcare support, to enable all individuals with parental responsibilities to participate in lifelong learning.	Page 63	2 years
17	We will review funding exemptions to ensure more individuals can participate in 'reskilling' opportunities, aligned to undersupplied qualifications in engineering and technology, mathematics, computer science and physical and environmental sciences.	Page 63	2 years
18	We will develop, and consult on, legislation to introduce training leave allowances for Northern Ireland employees.	Page 64	5 years
19	We will work with the FE Sector to examine the development of remote/blended, modular learning approaches, tailored to the needs of individuals and their employers.	Page 65	2 years
20	Under the auspices of the new Skills Strategy, DfE will develop a renewed approach to management and leadership in Northern Ireland.	Page 70	2 years
21	We will introduce a business pledge to recognise and promote employers who actively engage with principles of the work quality indicators. Businesses with 50+ employees must subscribe and actively promote the principles of the 'Better Jobs Pledge' prior to engagement with publicly funded support programmes.	Page 74	5 years
22	The NICS will take steps to mark itself out as a leader in the adoption of High Performance Working Practices and the development of management and leadership skills in Senior Civil Service grades.	Page 75	2 years
23	We will develop a discrete, collaborative project, to define what employability skills means in the Northern Ireland labour market and propose a series of actions to improve the performance of our education system.	Page 76	2 years
Enhancing Digital Skills, Developing Our Digital Spine			
24	An expert panel of individuals from business and education will be appointed to develop a specific Digital Skills Action Plan for Northern Ireland.	Page 82	2 years
Policy Enablers			
Enhancing Policy Cohesion			
25	A new Northern Ireland Skills Council will be responsible for the implementation of the Skills Strategy. It will have ministerial leadership and include senior representatives from all government departments and local government.	Page 86	2 years
26	The Northern Ireland Skills Council should maintain an oversight role in the commissioning and development of all skills policies and related research.	Page 86	2 years
27	We will continue to work across central and local government to develop and implement sub-regional approaches to skills development, tailored to the needs of local businesses and communities.	Page 87	2 years
Building Strong Relationships			
28	The Northern Ireland Skills Council will be established to provide long-term, consistent, advice on the development and implementation of all aspects of skills policy. It will include representation from business leaders, senior representatives of education and employee representatives from trade unions.	Page 88	2 years
29	Under the auspices of the Northern Ireland Skills Council, we will review and rationalise the existing (skills) advisory infrastructure.	Page 88	2 years
30	Employer, employee and education institutions will be given a key role in determining the terms of reference for the Northern Ireland Skills Council.	Page 88	2 years

Policy Objectives			
31	The Northern Ireland Skills Council should a sub-committee to consider how gender, and other diversity issues, can be better addressed across education, skills and employment policies and practices.	Page 89	2 years
32	The new Skills Strategy will be underpinned by 2, 5 and 10 year action plans.	Page 90	2 years
Investment in the Skills System (see also commitment 7)			
33	The Skills Strategy will be endorsed, as a whole-of-government Strategy, by the Northern Ireland Executive, recognising the key, strategic importance of education and skills development to our social and economic prosperity.	Page 93	2 years
34	A ring-fenced skills fund will be developed to provide new opportunities in the labour market and support the skills development of the working age population as we emerge from the COVID-19 pandemic and prepare for the economic changes brought about by our exit from the EU.	Page 93	2 years

Appendix 1: Key Interface Strategies

Skills Strategy and Policy remains a complex area. Education and skills outcomes have a direct bearing on many other areas of Government policy. In launching a ‘whole-of-government’ Skills Strategy, it is important to recognise other key areas of developing and existing policy which will interface with it. It will be incumbent upon the proposed Central Skills Strategy Steering Group, with the support of the Northern Ireland Skills Council, to engage with each of these strategies to maximise coherence and minimise duplication.

The Programme for Government

Since 2018, the strategic framework for the development and implementation of public services has been set out in outcome delivery plans²⁰³. The Executive is committed to bringing forward a new, multi-year Programme for Government that is focused on achieving outcomes of societal wellbeing and delivers positive change in people’s lives.

The Programme for Government provides the overarching framework for government policy. Continued engagement, in an outcomes-focused approach to education, skills and employability, in the development of the society and economy we envisage for Northern Ireland, will remain our central focus.

*New Decade, New Approach*²⁰⁴

New Decade, New Approach (NDNA) provided a basis for the political agreement which saw the Northern Ireland Executive restored in 2020. It included a proposal to review funding for the education system which is a significant commitment already included in this document. As NDNA continues to shape the delivery of public services, feeding into PfG, the skills system must continue to play its role in a changing Northern Ireland. The flexibility built into our proposed Strategy, through 2 – 5 – 10 year implementation plans, is designed to cope with changing circumstances and to respond to emerging need.

A 10x Economy / COVID-19 Economic Recovery Plan

203 The Executive Office (2020) *Programme for Government*. Available from: <https://www.executiveoffice-ni.gov.uk/topics/making-government-work/programme-government>

204 Governments of the UK and Republic of Ireland (2020) *New Decade, New Approach*. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/856998/2020-01-08_a_new_decade_a_new_approach.pdf

“A 10x Economy: Northern Ireland’s Decade of Innovation²⁰⁵” was published in May 2021. The guiding principles established in *A 10x Economy*, are also integral to this draft Strategy. As we implement our response to the economic impact of COVID-19²⁰⁶ and emerge towards longer term thinking about the economy and society we want to develop in Northern Ireland, the economic vision and Skills Strategy must work in a directly complementary way to maximise the outcomes, enabling people and businesses to reach their potential.

*The Innovation Strategy*²⁰⁷

This document makes repeated references to the importance of skills in driving innovation and competitiveness. As two key components of a successful economic policy, it is vital that we continue to develop the implementation of skills and innovation policies in a coordinated way, with an overarching focus on delivering the objectives of our overarching economic vision: a 10x Economy.

*Project Stratum*²⁰⁸

Project Stratum is focused on improving Northern Ireland’s digital infrastructure and ensuring comprehensive digital connectivity across the province. This is not a skills issue per se, but as this Strategy aims to improve digital inclusion and underpin balanced regional growth, we must also ensure digital accessibility.

City and Growth Deals

Northern Ireland’s City and Growth Deals programme will attract over £1 billion of investment in the infrastructure necessary to connect businesses at all levels to new ideas and new technologies. This is a key part of the thriving innovation ecosystem set out in ‘*A 10x Economy*’ and will make a major contribution to driving inclusive growth across Northern Ireland. Maximising the potential of City and Growth Deals will need to be underpinned by an agile skills system which is responsive to evidence of emerging skills needs.

Tourism Recovery Action Plan

Tourism was one of the sectors hit the hardest by the Covid-19 pandemic. As ‘*A 10x Economy*’ highlights, it is a sector which has a central role in the Northern Ireland economy, at the forefront of marketing our reputation and attractiveness to the world. As the Department supports the sector to recover and grow, the skills system will need to continue to respond to its needs, as will be detailed in the forthcoming *Tourism Recovery Action Plan*.

205 DfE (2021) *A 10x Economy: Northern Ireland’s Decade of Innovation*. Available from: <https://www.economy-ni.gov.uk/sites/default/files/publications/economy/10x-economy-ni-decade-of-innovation.pdf>

206 DfE (2020) *Rebuilding a Stronger Economy: the Medium Term Recovery Plan*. Available from: <https://www.economy-ni.gov.uk/publications/rebuilding-stronger-economy-medium-term-recovery>

207 The Northern Ireland Executive (2014) *Innovate NI: the Innovation Strategy for Northern Ireland 2014 – 2025*. Available from: https://www.economy-ni.gov.uk/sites/default/files/publications/deti/Innovation-Strategy-2014-2025_2_0.pdf

208 DfE (2020) *Project Stratum*. Available from: <https://www.economy-ni.gov.uk/topics/telecoms/project-stratum>

The Northern Ireland Energy Strategy / Green Growth Strategy

The Northern Ireland Energy Strategy²⁰⁹ is currently being developed by DfE and the Green Growth Strategy²¹⁰ is being developed by DAERA. While these are two distinct projects, the demands of the skills system will be similar. We need to develop the skills which will drive innovation in the development of technology solutions which meet our low carbon economy ambitions. This not only benefits Northern Ireland, there is a global focus on carbon reduction, meaning innovation in Northern Ireland will have tradable value across the globe. For these reasons, ‘zero carbon tech’ has already been identified as an enabling technology for Northern Ireland, a sector where our strong manufacturing base can continue to evolve in global markets.

DAERA Knowledge Framework

DAERA have an established ‘Knowledge Framework’ which provides an overarching strategy for the development of knowledge and skills in the agri-food industry²¹¹. It already shares key principles and objectives with the proposed Skills Strategy, in particular around improving the skills profile in the agri-food sector, supporting more people in better jobs, a commitment to lifelong learning and promoting partnership and collaboration to ensure that research and development maximises its potential to make a positive impact on agri-food businesses.

Every School A Good School²¹²

Every School a Good School is a DE policy which seeks to ensure that every school is a good school and has identified raising standards and tackling underachievement as key priorities, in enabling every young person to fulfil their potential at each stage of their development. Published in 2009, this policy aims to support schools and teachers in their work to raise standards and overcome barriers to learning some pupils may face. This policy includes a requirement to provide focused support for schools which, as a result of inspection by the Education and Training Inspectorate, are found to be offering less than satisfactory provision for their pupils. This support is provided through the ‘Formal Intervention Process’.

Learning Leaders²¹³

‘Learning Leaders’ is the DE’s teacher professional learning strategy. It establishes a strategic vision where every teacher is a learning leader, accomplished in working collaboratively with all partners, in the interests of children and young people.

209 DfE (2020) *Northern Ireland Energy Strategy 2050*. Available from: <https://www.economy-ni.gov.uk/articles/northern-ireland-energy-strategy-2050>

210 DAERA (2020) *Poots Plans ‘Green Growth’ Approach for Northern Ireland*. Available from: <https://www.daera-ni.gov.uk/news/poots-plans-green-growth-approach-ni>

211 DAERA (2019) *Knowledge Framework*. Available from: <https://www.daera-ni.gov.uk/articles/daera-knowledge-framework>

212 DE (2020) *Every School A Good School*. Available from: <https://www.education-ni.gov.uk/articles/every-school-good-school-esags>

213 DE (2020) *Teacher Professional Learning Strategy*. Available from: <https://www.education-ni.gov.uk/articles/teacher-professional-learning-strategy>

*Common Funding Scheme*²¹⁴

The ‘*Common Funding Scheme*’ is a DE policy, which aims to ensure school budgets are allocated in accordance with pupil need and in a way that enables the effects of social disadvantage to be substantially reduced.

Employability NI

DfC is developing the new ‘*Employability NI*’ Strategy, to help address Northern Ireland’s long-term economic inactivity challenge. As detailed elsewhere in this document, engaging individuals furthest removed from the labour market in education and training provides one of the most important support measures to individuals who are ready to re-engage with work.

The Anti-Poverty Strategy & Child Poverty Strategies

DfC is also developing renewed Anti-Poverty and Child Poverty Strategies. The role skills has to play, as part of an outcomes-focused approach to addressing poverty and social deprivation, is detailed throughout the consultation document.

*Health and Social Care Workforce Strategy 2026*²¹⁵

DoH’s ‘*Health and Social Care Workforce Strategy 2026: Delivering for Our People*’ sets out ambitious goals for a workforce that will match the requirements of a transformed health and social care system. It also addresses the need to tackle serious challenges with supply, recruitment and retention of staff.

214 DE (2020) *Common Funding*. Available from: <https://www.education-ni.gov.uk/articles/common-funding>

215 DoH (2020) *Health and Social Care Workforce Strategy 2026*. Available from: <https://www.health-ni.gov.uk/publications/health-and-social-care-workforce-strategy-2026>

Appendix 2: Consultation Questions

Chapter 2: Strategic Context

1. Are you content with the overarching strategic direction set out in the section **The Programme for Government, our Economic Vision (a 10x Economy) and the Skills Strategy for Northern Ireland** (see page 28):

“the Skills Strategy must be directly aligned to the PfG aim of improving wellbeing for all by supporting efforts to tackle inequalities, providing low skilled, low paid, or unemployed individuals with the opportunities they need to work in ‘better jobs’, whilst concurrently focusing on provision of the skills and qualifications needed to drive economic growth and competitiveness in the sectors where Northern Ireland has real global potential.”

- If you do not agree, please provide further detail.
2. Do you agree with the need to rationalise the skills landscape by limiting the number of strategies governing separate parts of the skills system, instead focusing on a single, overarching, Skills Strategy for Northern Ireland (see page 40-41)?
 - If you do not agree, please provide further detail.
 3. Have you any other comments on the Strategic Context Chapter?

Chapter 4: Strategic Goals and Policy Objectives

4. Acknowledging the need for the development of ‘SMART’ targets, do you agree that the skills supply gap identified under the Skills Barometer’s high growth scenario should be placed at the centre of the proposed Strategy (see page 43)?
 - If you do not agree, please provide further detail / preferred proposals.
5. Are you content that the proposals contained in pages 43 - 56 provide an ambitious and comprehensive approach to ‘Addressing Skills Imbalance, Driving Economic Growth’?
 - If you do not agree, please provide further detail.
6. Are there any additional proposals you believe should be considered under the ‘Addressing Skills Imbalances, Driving Economic Growth’ objective?
7. Are you content that the proposals contained in pages 57 - 75 provide an ambitious and comprehensive approach to ‘Creating a Culture of Lifelong Learning’?
 - If you do not agree, please provide further detail.

8. Are there any additional proposals you believe should be considered under the ‘*Creating a Culture of Lifelong Learning*’ objective?
9. Under ‘*Enhancing Digital Skills, Creating Our Digital Spine*’ we include only one recommendation, that an expert panel is appointed to develop a specific Digital Skills Action Plan for Northern Ireland (see pages 76 - 81). Do you agree with this approach?
 - If you do not agree, please provide further detail.
10. Have you any other comments on the Strategic Goals and Policy Objectives?

Chapter 5: Policy Enablers

11. The first two ‘policy enablers’: ‘*Enhancing Policy Cohesion*’ and ‘*Building Stronger Relationships*’ focus on a refreshed approach to the governance of the skills system (pages 84 - 90). Do you agree that these structures are a useful and appropriate approach to improving the development and implementation of skills policy in Northern Ireland?
 - If you do not agree, please provide further detail.
12. The third policy enabler focuses on ‘*Investment in the Skills System*’. The programme of change proposed in this consultation document is likely to require substantial investment. Do you agree that this should be prioritised?
 - Please elaborate on your response.
 - Consultees who agree should remain mindful that this may mean reductions in funding for other public services.
 - If you disagree, please provide further detail.