

National Innovation Strategy: Equality Impact Assessment (Record and Results)

August 2023

National Innovation Strategy – Equality Impact Assessment Record

Title of policy/practice/strategy/legislation etc.	Scotland's National Innovation Strategy
Minister	Richard Lochhead, Minister for Small Business, Innovation, Tourism and Trade
Lead official	Alasdair Macleod, Head of the Innovation Unit
Officials involved in the EQIA	Rosie Moore, Senior Policy Adviser Innovation Unit
Directorate, Division and Team	Directorate for Economic Development; Technology, Innovation and Entrepreneurship Division; Innovation Unit
Is this a new policy or revision to an existing policy?	New policy

Screening

Policy aim

The 21/22 Programme for Government confirmed that the Scottish Government will develop and deliver an Innovation Strategy. The Strategy provides an opportunity to build on the National Strategy for Economic Transformation (NSET) and other recent work such as the Muscatelli Report, the Enterprise and Skills Strategic Board report on innovation, and the UK Government's Innovation Strategy.

The National Innovation Strategy has an ambitious vision for Scotland to become one of the most innovative small nations in the world within the next ten years. It outlines how we will utilise innovation to grow our economy, create jobs and deliver priority outcomes. Woven throughout the Strategy is a focus on inclusiveness and diversity in all its forms, so that the Strategy is enriched by more diverse perspectives, and in turn more people and communities benefit from the work that follows.

The National Innovation Strategy encompasses the following interlinked actions:

- 1. We will identify and promote the innovative technologies and sectors in which Scotland has clear potential to lead the world, and we will take a cluster-building approach to supporting these areas to become world leading.**
 - Scotland's National Innovation Strategy identifies and focuses on sectors and technologies where we can objectively demonstrate the potential to be world leading, mirroring the approach taken in NSET, our Export, Inward Investment and Global Capital Investment Plans.

- Aligned with existing Government commitments and targets, data-driven analysis has identified the innovative sectors in which Scotland has clear potential to lead the world, resulting in the four broad themes that are the current pillars of Scotland's economy: Energy Transition, Health and Life Sciences, Data and Digital Technologies, and Advanced Manufacturing.
- Supplementary expert advice and insights from industry, academia and the public sector, further captures a number of additional new disruptive and radical innovations and more specific sub-sectors and technologies where Scotland has significant potential to be world-leading.
- We will take a systematic approach to the identification, evaluation and growth of priority Scottish clusters, that will promote excellence and encourage best practice.
- Forming a national Scottish Cluster Network with each of our innovation priority area clusters will provide national representation for priority areas, facilitating relationships, knowledge exchange, international connectivity and collaboration.
- We will work with industry, academia and the public sector to evaluate individual needs to address barriers and opportunities, and providing phased tailored packages of support in each priority area to further stimulate growth and innovation.

2. We will adopt an investor mindset to supporting our most innovative businesses – investing where we have a competitive advantage and providing a comprehensive and co-ordinated package of support.

- We will renew our approach to innovation investment support, collaborating across the public and private sectors to design a system that is built around the needs of Scotland's businesses starting with an Innovation Funding Review to be completed by the end of 2023.
- An Innovation Investment Programme, to be announced in early 2024, will ring-fence a significant proportion of public sector innovation funding to be spent and invested in the innovation priority areas, and will take a more coordinated approach to increasing Scotland's share of UK and EU innovation funds.
- We will explore with key partners new models of investment in the form of a customer collaboration innovation grant, and consolidate existing funding streams where possible to improve information and simplify access to innovation support for businesses.

3. We will transform our commercialisation landscape, strengthening the role that our research base plays in driving economic and societal prosperity.

- We will support our universities in their ambitions to design and develop a new Scottish Innovation Fund to assist the development of an investment ecosystem for late stage Research and Development (R&D).

- We will publish a Research and Commercialisation Action Plan, setting out new national guiding principles on how we make a step change in the commercialisation of research.
 - The new commercialisation programme will align with existing commitments from the Scottish Technology Ecosystem Review (STER) and NSET to develop and build an entrepreneurial mindset and culture across our higher education and research system through Entrepreneurial Campuses.
- 4. We will rapidly increase the rate and scale at which innovations are adopted in Scotland – by businesses, by communities, and by the public sector.**
- A new National Productivity Programme will support more of our Small and Medium-sized Enterprises (SMEs) to innovate and increase productivity through connection with our innovation architecture.
 - Creation of an Innovation Adoption Referral Charter will ensure businesses receive warm and effective handovers when being referred between government and agencies.
 - The National Productivity Programme will link to the Scottish Cluster Network, so that the wider supply chain of current and potential SME customers and suppliers can be brought into our success in our identified priority areas.
- 5. We will measure our innovation performance and benchmark this against other nations in an annual Innovation Scorecard.**
- We will develop and publish an Innovation Scorecard which will rigorously measure and assess the strength and performance of each level of Scotland’s innovation ecosystem, across industry, academia, and the public sector.
 - We will also develop suitable metrics to capture and assess participation and impact in the innovation ecosystem including data on equalities, diversity and inclusion. This will include access to finance, funding, jobs and opportunities.

Strategic alignment

The National Innovation Strategy is linked to actions 21 and 22 in Project 5 of NSET’s New Market Opportunities Programme¹:

- **Action 21:** “Promote Scotland as an innovative test bed for new technologies and markets and coordinate action across the public sector to leverage our spending power and the CivTech business incubation model to stimulate innovation in our health and other public services. The creation of an International Innovations capability within the Scottish Government will lead on the global economic and societal opportunities created through our expertise in public service innovation.”

¹ [Scotland's National Strategy for Economic Transformation - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/national-innovation-strategy/pages/21-promote-scotland-as-an-innovative-test-bed-for-new-technologies-and-markets-and-coordinate-action-across-the-public-sector-to-leverage-our-spending-power-and-the-civtech-business-incubation-model-to-stimulate-innovation-in-our-health-and-other-public-services)

- **Action 22:** “Provide public sector R&D grant support and finance to businesses to further increase Business Enterprise R&D spend in sectors with the greatest economic opportunity, in particular our key industries.”

This Equality Impact Assessment (EQIA) is therefore also closely interconnected with the [Programme 2 – New Market Opportunities Equality Impact Assessment](#) of NSET.

The National Innovation Strategy will further reinforce the work done through the Global Capital Investment Plan and Inward Investment Plans to “augment alignment of the wider investment ecosystem in Scotland”² and to “support an economic recovery with fair work, inclusive growth and net zero emissions at its heart.”³

Who will it affect?

The National Innovation Strategy will affect how the Scottish Government and its agencies nurture and support innovation activity within Scotland’s innovation priority areas. It will not specifically target particular groups or sections of society, but the actions identified in the Strategy are intended to drive Scotland’s overall economic prosperity to the benefit of all Scotland’s citizens.

Evidence suggests that there are particular barriers to female entrepreneurs that may prevent them from fully participating in Scotland’s innovation ecosystem. This evidence has been brought to light by engagement and industry insights from a range of stakeholders over the course of developing the National Innovation Strategy, including a number of female entrepreneurs and women in senior positions in highly innovative businesses.

The Strategy will outline steps to ensure our innovation ecosystem in Scotland is inclusive and diverse, considering how innovation activity in Scotland can be accessed equally by people with one or more of the protected characteristics. Diversity and inclusion considerations have been embedded through the Strategy’s vision and language, recommendations, evaluation and metrics of success.

The scope of the EQIA is to consider the impact of the actions within the National Innovation Strategy on a range of protected characteristics as listed in the Equality Act 2010⁴: age, disability, sex, pregnancy and maternity, gender reassignment, sexual orientation, race, and religion or belief.⁵

What might prevent the desired outcomes being achieved?

² [Investing with Purpose: global capital investment plan - gov.scot \(www.gov.scot\)](#)

³ [Investing with Purpose: global capital investment plan - gov.scot \(www.gov.scot\)](#)

⁴ [Equality Act 2010 \(legislation.gov.uk\)](#)

⁵ The Scottish Government does not require assessment against the Marriage and Civil Partnership protected characteristic unless the policy or practice relates to work, for example HR policies and practices - refer to Definitions of Protected Characteristics document for details.

Achieving the desired outcomes will be dependent on the successful implementation of the National Innovation Strategy's actions. This in turn will be dependent upon, and will involve a need for, businesses across industries and sectors, higher education institutions, enterprise agencies and other public sector bodies, and local authorities to take action to adapt to the changes and responsibilities which may be placed on them by the National Innovation Strategy's implementation.

There is also a need for committed and coordinated action, and tailored financial models that incentivise and reward inclusion in innovation participation, investment and support, as well as impact. This National Innovation Strategy will prioritise partnership and collaborative working across the entire innovation ecosystem across the quadruple helix of industry, academia, the public sector and communities.

Whilst the Strategy has committed to developing tailored packages of support alongside industry for each priority area to ensure particular barriers to participation in innovation activity are addressed, a number of powers fall outside devolved competency such as immigration controls and taxation. Immigration restrictions may impact the support the Scottish Government can provide to improve attracting more diverse international talent in areas that require a broadening of their talent pipeline. We will therefore work closely with the UK Government on these matters where possible.

Stage 1: Framing

The Equality Act 2010 places a duty (known as the Public Sector Equality Duty, or PSED) on public authorities to have due regard to the need to eliminate discrimination, harassment and victimisation; advance equality of opportunity; and promote good relations between people who share a protected characteristic and those who do not. The Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012 (Regulation 5) require public authorities to assess and review policies and practices against these three needs of the PSED.

The EQIA for the National Innovation Strategy has sought to utilise both existing and emerging information, evidence and analysis of stakeholder engagements as part of the wider policy development process for the Strategy, and will continue to do so as the Innovation Strategy's delivery plans are developed.

In addition to mitigating any potential negative impacts, this EQIA will also seek opportunities to promote equality through the National Innovation Strategy's actions and delivery. Specifically, the EQIA will consider impacts on protected characteristics groups based on three elements:

- Eliminate discrimination, harassment and victimisation;
- Advance equality of opportunity, and;
- Foster good relations.

Consultation and engagement

During the development of the National Innovation Strategy, the Scottish Government has engaged with a wide variety of stakeholders on the themes of inclusive innovation and promoting the positive impacts of innovative activity for all of Scotland's citizens.

A core consideration in development of the Strategy was to ensure a wide engagement and consultation process, ensuring that a diverse range of opinions and insights were captured in a number of ways. Steps were taken to reach out to those actors in Scotland's innovation ecosystem who may not regularly engage with the Scottish Government and Scottish Government strategy processes such as youth programmes linked to Scotland's colleges, organisations with service design functions such as the V&A and Service Design Academy and community innovation organisations such as the Glasgow Centre for Civic Innovation.

Work was also undertaken to diversify and widen inclusivity in the National Innovation Strategy process' wider governance structures, to ensure that the senior level Innovation Strategy Steering Group and working groups obtained an appropriate gender balance and represented a broad range of actors within Scotland's innovation ecosystem.

Call for evidence

A call for evidence exercise ran in June 2022, receiving over 60 responses from across industry, the public sector and academia. The responses were analysed to consider specific suggestions relating to equality and people with protected characteristics.

Respondents raised a number of considerations on how to inclusively measure innovation activity and impact, including how to measure social mobility and impact as part of the National Innovation Strategy's monitoring processes, and implementing ethics processes to innovation projects to ensure delivery on societal ambitions and their alignment with project values.

Also referenced were the benefits of acknowledging and prioritising innovation to help solve broad societal challenges relating to, for example, regional health inequalities or decarbonisation and net zero ambitions, and the significant importance of place-based innovation ecosystems such as Innovation Districts to foster a shared purpose in tackling regional challenges.

The importance of involving communities and citizens in setting and co-creating innovative solutions to deliver social and socially responsible innovation, as well as the importance of social and community innovation as an important part of the wider innovation ecosystem, was highlighted as beneficial in achieving societal and economic ambitions. Social innovation was highlighted as particularly important in rural areas of Scotland, as was the role of colleges in widening access to participation in innovation activity.

Workshops and roundtable events

During the Strategy's development process, a number of workshops were held with actors from across Scotland's innovation ecosystem, to augment input from businesses of all sizes and locations across Scotland and representatives from the higher education and public sectors:

- A Rural Innovation Workshop, incorporating project leads from the OECD Rural Innovation Project (of which Scotland is a test site)
- A stakeholder event co-delivered with the Royal Society of Edinburgh
- A roundtable event for members of the investment community
- An Infrastructure Workshop with key representatives from across Scotland's innovation infrastructure system
- A Metrics Workshop run by Scottish Government economists, involving experts from higher education and innovation research organisations
- Workshops held by workstream sponsors from the Innovation Strategy's Senior Steering Group, consisting of key stakeholders from industry, academia and the public sector
- Three themed business roundtables focussing on early stage, established corporate and rural businesses, co-delivered with our enterprise agencies and with over 70 businesses represented

- A roundtable event on Foreign Direct Investment into University Research and Development, involving Scottish Government and Innovate UK partners, academic experts from across the UK, the Scottish National Investment Bank, innovation experts and the Scottish Funding Council.

Stakeholder engagement

In addition to formal roundtables and workshops, a number of stakeholders were consulted individually as part of the National Innovation Strategy development process, further contributing to findings of the EQIA. Widespread engagement from across the country included with businesses from a range of different sectors and sizes, Industry Leadership Groups, our universities and colleges, our innovation centres, and our enterprise and skills agencies.

The Scottish Government engaged with stakeholders who have expertise in social innovation and in widening access and co-developed innovation activity in Scotland. Those consulted specifically on equality of opportunity in Scotland's innovation ecosystem were:

- Glasgow City of Science and Innovation
- Forth Valley College
- University of Strathclyde
- University of Glasgow
- Centre for Civic Innovation
- Glasgow Caledonian University
- Innovation Strategy Steering Group members
- V&A
- Service Design Academy
- Highlands and Islands Enterprise
- South of Scotland Enterprise
- Universities Scotland
- Colleges Scotland
- Energy Skills Partnership
- Digital Health and Care Innovation Centre
- Ross Tuffee, Founder.Scot

Policy alignment

The National Innovation Strategy makes several references to its co-ordination with other plans and policy initiatives. Through the Strategy's development process, other Scottish Government departments and agencies were consulted on aligning work on equalities issues, including departments responsible for:

- The Scottish Technology Ecosystem Review
- Pathways: A New Approach for Women in Entrepreneurship (The Stewart Review)
- Women in Business and Enterprise
- Rural Economy Unit

- Community Wealth Building
- Equalities Unit
- Highlands and Islands Enterprise
- South of Scotland Enterprise

Extent/level of EQIA required

The Scottish Government has obligations under the Equality Act 2010 (Specific Duties) (Scotland) Regulations 2012. Public authorities must carry out an EQIA under Section 5 of the Equality Act, as well as there being a duty for those same public authorities to by extension promote equality by eliminating unlawful discrimination, harassment and victimisation; advancing equality of opportunity; and fostering good relations between persons who share a protected characteristic and those who do not.

To deliver this obligation, the Scottish Government promotes a mainstreaming approach to equality to ensure that the impact of its policies, programmes and legislation on groups of people who share a protected characteristic are assessed by all areas and at all levels.

The Scottish Government must consider how the decisions we make meet the three needs of the Public Sector Equality Duty. Where any negative impacts are identified we will seek to address and mitigate them, and we will seek to advance equality through the National Innovation Strategy's programmes by ensuring that any new or changing policy is informed and shaped by an EQIA.

Specifically, this EQIA assesses any impacts of applying a proposed new or revised policy or practice against the needs relevant to a public authority's duty to meet the Public Sector Equality Duty. The needs are to:

- Eliminate discrimination, harassment and victimisation;
- Advance equality of opportunity; and
- Foster good relations.

Limitations to the EQIA include a lack of available evidence, particularly on intersectionality of certain protected characteristics, in order to comprehensively assess impact. The National Innovation Strategy commits to filling some of these evidence gaps through dedicated data gathering over the life cycle of the strategy. As part of the Innovation Scorecard, we will develop suitable metrics to capture and assess participation and impact in the innovation ecosystem, including data on equalities, diversity and inclusion.

Further, as the plan is a high level strategic document, the detail of delivery of the Strategy's actions has yet to be finalised and so the impact cannot be measured at present. Further evidence and data gathering should be undertaken to assess how the plan's policies impact on groups within the protected characteristics in order to support future policy development and implementation.

Based on the limitations above, the National Innovation Strategy should be considered alongside other policy initiatives and commitments to promote equality across the Scottish Government. These include, but are not limited to:

- The National Strategy for Economic Transformation⁶
- The Inward Investment Plan⁷
- The Global Capital Investment Plan⁸
- The Scottish Technology Ecosystem Review⁹
- Pathways: A New Approach for Women in Entrepreneurship (The Stewart Review)¹⁰
- Sectoral Strategies including the Campbell Report¹¹, the Draft Energy Strategy and Just Transition Plan¹², Hydrogen Action Plan¹³ and others.

⁶ [Delivering Economic Prosperity \(www.gov.scot\)](http://www.gov.scot)

⁷ [Scotland's Inward Investment Plan: Shaping Scotland's Economy \(www.gov.scot\)](http://www.gov.scot)

⁸ [Investing with Purpose: Scotland's Global Capital Investment Plan \(www.gov.scot\)](http://www.gov.scot)

⁹ [Scottish Technology Ecosystem Review \(www.gov.scot\)](http://www.gov.scot)

¹⁰ [Pathways: A New Approach for Women in Entrepreneurship \(www.gov.scot\)](http://www.gov.scot)

¹¹ [The Campbell Report: A roadmap to investment for health innovation life sciences and healthtech in Scotland \(www.gov.scot\)](http://www.gov.scot)

¹² [Draft Energy Strategy and Just Transition Plan \(www.gov.scot\)](http://www.gov.scot)

¹³ [Hydrogen Action Plan \(www.gov.scot\)](http://www.gov.scot)

Stage 2: Data and evidence gathering, involvement and consultation

Characteristic	Evidence Gathered and Strength/Quality of Evidence	Source	Data gaps identified and action taken
Age	<p>Entrepreneurial Activity Entrepreneurial Activity is highest among 18-24 year olds:</p> <ul style="list-style-type: none"> • Early-Stage entrepreneurial activity is highest among younger entrepreneurs (18-24 year olds at 13.3%), and the lowest with 55-64 year olds at 6/6%. • Scotland’s leading rate in entrepreneurial activity of 13% from 2020 improved marginally to 13.3% in 2021, and is now second in the UK. • Intersectionality: “Women are marginally more likely to start a company between the ages of 41-60.” <p>Spinout Founders</p> <ul style="list-style-type: none"> • As of January 2022, the age breakdown of founders of spinouts was as follows: 20-29 (3.06%), 30-39 (16.4%), 40-49 (28.9%), 50-59 (39.5%), 60-69 (4.34%), 70-79 (7.13%) and 80+ (0.73%). <p>Impact of innovation on older people</p> <ul style="list-style-type: none"> • “Globally, just over half (55%) of us believe that technological development has the capacity to 	<p>Global Entrepreneurship Monitor: Scotland Report 2021/2022¹⁴</p> <p>Pathways: A New Approach for Women in Entrepreneurship¹⁵</p> <p>Spotlight on Spinouts 2022 UK Report, Royal Academy of Engineering¹⁶</p> <p>A Fairer Scotland for Older People:</p>	<p>Limited data suggests that entrepreneurial activity is greatest among lower age groups, but the average age of spin out founders¹⁸ is much higher.</p> <p>More analysis of the potential effect, success rate and economic value from entrepreneurial activity of younger people could be undertaken in order to improve our understanding and take steps to improve success rates across all age groups.</p>

¹⁴ [Global Entrepreneurship Monitor: Scotland Report 2021/2022 \(strath.ac.uk\)](https://strath.ac.uk/global-entrepreneurship-monitor-scotland-report-2021-2022/)

¹⁵ [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](https://www.gov.scot/pathways-a-new-approach-for-women-in-entrepreneurship/)

¹⁶ [Spotlight-on-spinouts-2022-uk-academic-spinout-trends-v2.pdf \(raeng.org.uk\)](https://raeng.org.uk/spotlight-on-spinouts-2022-uk-academic-spinout-trends-v2.pdf)

¹⁸ The USA’s Securities and Exchange Commission (SEC) defines a spin-out as when the parent – usually a higher educational institution - has a share in the equity of the newly formed company.

	improve age for a lot of people.”	A Framework for Action ¹⁷	
Disability	<p>Employment</p> <ul style="list-style-type: none"> • People with disabilities are less likely to be in employment than non-disabled people and earn less on average than non-disabled people. • People with disabilities are employed across all occupation types and sectors of Scotland’s economy, however they are more likely to work in lower paid occupations. • Disabled people with a degree or above had a higher employment rate than disabled people with qualifications below degree level (75.6% and 43.0% respectively). This was the same for non-disabled people (88.8% and 77.6% respectively). However, the difference in employment rates between disabled people with a degree and disabled people without a degree was nearly three times the size of the difference amongst non-disabled people. Even with a degree or above, disabled people are still less likely to be employed (employment rate of 75.6%) than non-disabled people without one (employment rate of 77.6%). 	<p>Fairer Scotland for disabled people - employment action plan: progress report - year 2²⁰</p> <p>Disabled people in the labour market in Scotland²¹</p>	<p>The Scottish Government has published the Fairer Scotland for disabled people – employment action plan²⁹ as part of the Fair Work action plan.³⁰</p> <p>Fair Work principles must be embedded in all actions to encourage diverse hiring practices by private sector employers.</p> <p>The National Innovation Strategy will be encouraging high sector growth in our innovation priority areas, creating high value and well-paid jobs. We must ensure that these jobs are accessible to those with disabilities in order to provide equity of opportunity for well-paid jobs for those with the right qualifications.</p>

¹⁷ Ipsos-MORI/Centre for Ageing Better The Perennials: the Future of Ageing, pg. 177, in [A Fairer Scotland for Older People: A Framework for Action \(www.gov.scot\)](http://www.gov.scot)

²⁰ [Supporting documents - Fairer Scotland for disabled people - employment action plan: progress report - year 2 - gov.scot \(www.gov.scot\)](http://www.gov.scot)

²¹ [Supporting documents - Labour Market Statistics for Scotland by Disability: January to December 2022 - gov.scot \(www.gov.scot\)](http://www.gov.scot)

²⁹ [Fairer Scotland for disabled people – employment action plan](http://www.gov.scot)

³⁰ [Fair Work: action plan](http://www.gov.scot)

	<ul style="list-style-type: none"> • Non-disabled people with a degree or above had an employment rate of 88.8% in 2022, around 13 percentage points higher than disabled people with a degree or above. <p>Disability Employment Rate Gap</p> <ul style="list-style-type: none"> • The difference between the employment rates for non-disabled and disabled people is the disability employment rate gap. It is defined as the employment rate for non-disabled people minus the employment rate for disabled people. • In 2022, the disability employment rate gap was: <ul style="list-style-type: none"> ○ wider for men compared to women ○ widest for the 35-49 year old age group ○ wider for white groups compared to minority ethnic groups. <p>Employment Training and Support</p> <ul style="list-style-type: none"> • Disabled people are more likely to be living in poverty, earn less if they are in work, have higher living costs, are twice as likely to have unsecured debt of more than half their income, and on average have much less in the way of savings and assets (i.e. lack of start-up capital) 	<p>Disabled people in the labour market in Scotland²²</p> <p>Disabled people in the labour market in Scotland²³</p> <p>Supporting Diversity and Inclusion, Innovate UK²⁴</p>	<p>Disability may create barriers to accessing appropriate training / support, affecting the diversity and accessibility of talent pipelines of emerging innovative sectors.</p> <p>More data is needed to determine how this will</p>
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²² ONS Annual Population Survey, Jan-Dec 2022 in [Supporting documents - Labour Market Statistics for Scotland by Disability: January to December 2022 - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/labour-market-statistics-for-scotland-by-disability-january-to-december-2022)

²³ ONS Annual Population Survey, Jan-Dec 2022 in [Supporting documents - Labour Market Statistics for Scotland by Disability: January to December 2022 - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/labour-market-statistics-for-scotland-by-disability-january-to-december-2022)

²⁴ [InnovateUK Supporting Diversity and Inclusion in innovation WEBVERSION.pdf \(publishing.service.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/114444/InnovateUK_Supporting_Diversity_and_Inclusion_in_innovation_WEBVERSION.pdf)

	<p>than non-disabled people (Papworth Trust, 2018). Disability may therefore create barriers to accessing appropriate training / support, affecting the diversity and accessibility of talent pipelines of emerging innovative sectors.</p> <ul style="list-style-type: none"> • Disabled people aged 16-18 are at least twice as likely not to be in education, employment or training (NEET) as their peers (Papworth Trust, 2018). <p>Perceptions</p> <ul style="list-style-type: none"> • Public perceptions (1 in 3) that disabled people are less productive may affect not only job opportunities, but promotion and development opportunities that could be pathways to innovation (Scope 2018). • Disabled innovators may not identify as ‘disabled’ or disclose their status owing to social stigma around disability, therefore becoming ‘invisible’ and limiting options for promoting diversity (e.g. via role-models and mentors). <p>Disability Pay Gap¹⁹</p> <ul style="list-style-type: none"> • The median hourly pay for disabled employees has increased since 2014 to £10.58 in 2019. Despite 	<p>Supporting Diversity and Inclusion, Innovate UK²⁵</p> <p>Disabled people in the labour market in Scotland²⁶</p>	<p>affect each innovation priority area identified in the Strategy, so that mitigating circumstances can be addressed to ensure diverse talent pools are available for highly innovative sectors of Scotland’s economy.</p>
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¹⁹ The disability pay gap is calculated as median hourly pay of non-disabled employees minus median hourly pay of disabled employees expressed as a percentage of median hourly pay of non-disabled employees.

²⁵ [InnovateUK Supporting Diversity and Inclusion in innovation WEBVERSION.pdf \(publishing.service.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/682222/InnovateUK_Supporting_Diversity_and_Inclusion_in_innovation_WEBVERSION.pdf)

²⁶ [Labour Market Statistics for Scotland by Disability: January to December 2022 - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/labour-market-statistics-for-scotland-by-disability-2022/pages/introduction.aspx)

	<p>being higher than in 2014, the median pay for disabled employees has seen years where median hourly pay has decreased. The median hourly pay for non-disabled employees has been steadily increasing since 2014 to £12.63 in 2019.</p> <ul style="list-style-type: none"> • Although there are fluctuations in the disability pay gap, the gap has widened from 12.8 per cent in 2014 to 16.2 per cent in 2019. The gap in 2019 was 3.4 percentage points wider than in 2014 and 7.9 percentage points wider than in 2018. <p>Postdoctoral Researchers</p> <ul style="list-style-type: none"> • In 2019, “around 3% disclosed a disability, although this has risen from about 2.5% five years ago, chiefly through slightly more declaring mental health conditions or a cognitive or learning difference, whereas physical or medical conditions have not increased.” • HESA data: 2,160/51,375 research only staff have a disability (2021). 	<p>The Profile of postdoctoral researchers in the UK eligible for Royal Society early career fellowship programmes, CRAC²⁷</p> <p>HESA Personal Characteristics Data²⁸</p>	
<p>Gender Reassignment</p>	<p>STEM Paper Publication</p> <ul style="list-style-type: none"> • “A significant amount of an applicant’s track record in STEMM is focussed on their publication output and prior grant history. We have a historic and cultural 	<p>Barriers LGBTQI+ People Face in the Research Funding Processes,</p>	

²⁷ [Profile-of-postdoctoral-researchers-in-UK-eligible-for-RS-early-career-fellowship-programmes.pdf \(royalsociety.org\)](https://royalsociety.org/profile-of-postdoctoral-researchers-in-uk-eligible-for-rs-early-career-fellowship-programmes.pdf)

²⁸ [Who's working in HE?: Personal characteristics | HESA](#)

	<p>attitude towards referencing past work with respect to an individual's surname, e.g. through use of citations and the H-index. This is known to be problematic for those who change their name, e.g. through marriage or caste reasons (Holliday et al. (2015), COPE Case 13-02), but may also impact individuals who change their name during their gender transition. Some learned societies have made recommendations to address the need to systematically accommodate name changes in publication records (Atherton et al. 2016).”</p> <ul style="list-style-type: none"> • “0.98% have experienced transphobia, and 5.39% have experienced gender identity discrimination at work, college or university when trying to progress a career in STEM.” • When looking for work, more than half of survey respondents said they found getting into work difficult or challenging and 40% said their trans identity had a quite or very negative impact on their job prospects. Barriers included: 	<p>TIGERSTEMM³¹</p> <p>Women in STEM: An Intersectional Analysis of Multiple Discriminations, 2020³²</p> <p>Trans People and Work³³</p>	<p>More information is needed to determine how this group is impacted and how the Innovation Strategy's actions can be used to break down barriers to career progression in innovation priority industries.</p> <p>Fair Work principles must be embedded in all actions to encourage diverse hiring practices by private sector employers.</p>
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³¹ [TIGERSTEMM - Barriers to funding \(tigerinstemm.org\)](https://tigerinstemm.org)

³² [Women in STEM: An Intersectional Analysis of Multiple Discriminations](#)

³³ [Trans-People-and-Work-Survey-Report-LGBT-Health-Aug-2021-FINAL.pdf \(lgbthealth.org.uk\)](#)

	<ul style="list-style-type: none"> ○ Feeling unable to apply at all because of fears of prejudice ○ Application forms which exclude non-binary identities ○ Difficulty obtaining references and proof of qualifications to match gender and new name ○ Lack of awareness, and sometimes transphobia, from interview panels ○ Feeling unable to be out about their trans identity when applying for jobs. 		
Sex	<p>Entrepreneurial Activity</p> <ul style="list-style-type: none"> • “Currently, one in five of Scotland’s entrepreneurs are women.” <p>Entrepreneurial Activity was higher for men than women in 2022:</p> <ul style="list-style-type: none"> • Both male and female Total Entrepreneurial Activity (TEA) rates increased by about two percentage points in 2021 to 11.4% and 7.8%. • Female TEA was growing from a much lower base so the year-on-year growth is higher at 44% compared to 21%. • Among TEA entrepreneurs, there remains a significant 	<p>mnAI Data Analysis of Scotland’s Incorporations, 2022³⁶</p> <p>Global Entrepreneurship Monitor: Scotland Report 2021/2022³⁷</p>	<p>The Stewart Review goes a way to bridging intersectional knowledge gaps on gender and entrepreneurship in Scotland.</p> <p>However, the report highlights the continued lack of trend data on entrepreneurial participation rates and limited data aggregated by gender and ethnicity. This data gap is also prevalent in other countries and has been identified by other reports concerning women in entrepreneurship.⁶³</p> <p>More information is needed to determine how new</p>

³⁶ mnAI Data Analysis of Scotland’s Incorporations, 2022 in [Pathways: A New Approach for Women in Entrepreneurship](#)

³⁷ [Global Entrepreneurship Monitor: Scotland Report 2021/2022 \(strath.ac.uk\)](#)

⁶³ [The Alison Rose Review of Female Entrepreneurship \(publishing.service.gov.uk\)](#)

	<p>difference between males and females in terms of the extent to which “to earn a living because jobs are scarce” motivated the entrepreneurial activity. 74% of female TEA entrepreneurs indicated this was a key motive compared to 57.7% of males.</p> <ul style="list-style-type: none"> • In 2021, the female to male TEA ratio in Scotland is 68%, five points below the UK average (73%) but an eleven-point improvement on the 57% reported in 2020. • While overall regional TEA rates within Scotland are converging, gender disparity within regions remains. Female TEA is lower in Eastern Scotland (8.6% vs 10.8%), with parity observed in the Highlands and Islands (both at 9.2%). • “Some research points to women having lower expectations when it comes to growing businesses. It is thought that this is due to women’s lower level of confidence in starting businesses.” • “Self-confidence is not an individualised problem however, but a culmination of societal attitudes that results in lower female entrepreneurship rates.” 	<p>A Fairer Scotland For Women: Gender Pay Gap Action Plan, Scottish Government ³⁸</p> <p>A Fairer Scotland For Women: Gender Pay Gap Action Plan, Scottish Government ³⁹</p>	<p>emerging industries, and the potential for job losses, transformation and job substitution will impact men, who currently make up the majority of the industrial workforce.</p>
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³⁸ Hunter Centre for Entrepreneurship’s ‘Growing Women Entrepreneurship’ Research Seminar (slides on Huddle) in [Supporting documents - A fairer Scotland for women: gender pay gap action plan - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/a-fairer-scotland-for-women-gender-pay-gap-action-plan)

³⁹ Santos, F.J., Roomi, M.A., Liñán, F. (2016) ‘About Gender Differences and the Social Environment in the Development of Entrepreneurial Intentions’. Journal of Small Business Management, 54(1), 49-

	<ul style="list-style-type: none"> • Innovation Strategy Steering Group members highlighted the critical importance of confidence to innovation, confidence personally to fail and for people to invest in female entrepreneurs: <ul style="list-style-type: none"> ○ “There is a need to build confidence at scale in those who hear innovation is something they shouldn’t do if we want to diversify the ecosystem. We cannot assume what these barriers are for those hidden entrepreneurs, and we need to have those conversations and share negative experiences.” • “Attitudes are shaped by a number of elements including gendered entrepreneurial spaces and male-dominated networks, women starting businesses with lower levels of capital and a number of other factors” in the Not Now Social Renewal Advisory Plan Report, 2021.³⁴ • The Innovation Strategy’s Steering Group members highlighted that there are a number of ‘hidden 	<p>National Innovation Strategy Steering Group⁴⁰</p> <p>A Fairer Scotland For Women: Gender Pay Gap Action Plan, Scottish Government⁴¹</p> <p>National Innovation</p>	
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66, in [Supporting documents - A fairer Scotland for women: gender pay gap action plan - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/a-fairer-scotland-for-women-gender-pay-gap-action-plan)

³⁴ [If not now, when? - Social Renewal Advisory Board report: January 2021 - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/if-not-now-when-social-renewal-advisory-board-report-january-2021)

⁴⁰ Innovation Strategy Steering Group Meeting, 6 September 2022

⁴¹ [Supporting documents - A fairer Scotland for women: gender pay gap action plan - gov.scot \(www.gov.scot\)](https://www.gov.scot/supporting-documents/a-fairer-scotland-for-women-gender-pay-gap-action-plan)

	<p>entrepreneurs', including women, who are not currently as visible or supported by the innovation ecosystem. This is a significant opportunity that could be targeted.</p> <ul style="list-style-type: none"> The UK rank fell to 42nd for "women's entrepreneurial activity rate" on the 2021 Mastercard Index of Women Entrepreneurs (MIWE), however the proportion of female entrepreneurs who started a business due to the desire to make a difference ("female aspiration driven entrepreneurship") rose markedly from 46.1% to 60.0% (rank 10th, MIWE 2021). <p>SME Employers</p> <ul style="list-style-type: none"> In 2021, 23 per cent of SME employers in Scotland were women-led. This is higher than 2020, with statistical significance (17 per cent) and higher than the proportion in the UK as a whole (19 per cent). Medium-sized businesses (14 per cent) were less likely than average to be women-led. A further 24 per cent of SME employers in Scotland were 'equally-led' (24 per cent in the UK as a whole), with an equal number of men and women in the management team. This proportion was broadly in line with the 	<p>Strategy Steering Group⁴²</p> <p>The Mastercard Index of Women Entrepreneurs, 2021⁴³</p> <p>Small Business Survey Scotland 2021 (Last updated: 12th January 2023)⁴⁴</p>	<p>There is a gap in equalities data for innovation active businesses, as outlined in the UK Innovation Survey, and therefore it is unclear as to whether the equalities data for SME employers in Scotland differs if the businesses are innovation active.</p>
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⁴² Innovation Strategy Steering Group Meeting, 6 September 2022

⁴³ [The Mastercard Index of Women Entrepreneurs](#)

⁴⁴ [Small Business Survey Scotland 2021](#) (Last updated: 12 January 2023)

	<p>previous year. A further 9 per cent had a minority of women in the management team and 40 per cent were entirely male-led (both broadly in line with the UK as a whole at 10 per cent and 44 per cent respectively).</p> <p>Business Growth Rate</p> <ul style="list-style-type: none"> • “Data on company turnover by company age and gender [indicates] a slower rate of growth in female-led companies.” <p>Investors</p> <ul style="list-style-type: none"> • “In 2018, the British Private Equity & Venture Capital Association (BCVA) reported that “only 6% of senior investment professionals in the UK are females”, with “15% of mid-level roles (Directors, Principals, VPs, etc.) and 27% of junior roles (Associates, Analysts, etc.)” filled by women. • Overall, BCVA reported that “only 14% of investment professionals in the UK are women.” • From Scottish EDGE and Converge Challenge investment/awards initiatives that have “undertaken efforts to diversify judging panels, selection candidate pools, finalists and winners have become more diverse, particularly mixed-gender founder groups.” 	<p>Pathways: A New Approach for Women in Entrepreneurship⁴⁵</p> <p>‘Women in Private Equity’, 2018 (BCVA)⁴⁶</p> <p>Pathways: A New Approach for Women in Entrepreneurship⁴⁷</p>	
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⁴⁵ [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](http://www.gov.scot)

⁴⁶ [Women in Private Equity 2018 | BCVA | British Private Equity & Venture Capital Association](http://www.gov.scot)

⁴⁷ [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](http://www.gov.scot)

	<p>Investment</p> <ul style="list-style-type: none"> • “Between 2009 and 2019, 68.33% of the capital raised across the seed, early and late venture capital funding stages went to all-male teams, 28.80% to mixed teams and 2.87% to all-female teams.” • “Female teams raised lower sums of money than their male counterparts at each funding stage. Seed stage: £3.5B raised all male 84.17% mixed 12.51% all female 3.31%, Early stage: £16.5B raised all male 76.61% mixed 21.64% all female 1.74%, Late stage: £33.2B raised all male 62.56% mixed 34.05% all female 3.39%.” • Of the 2020 convertible loan agreements from The British Business Bank's (BBB) (Future Fund), 7/465 loans (£7.1m) went to all female teams (1.5%). • In the United Kingdom, female entrepreneurs’ “access to entrepreneurial finance” has improved in recent years, (from rank 14th to rank 10th in MIWE 2021). • For UK venture and growth capital in 2021, data from the 40 signatories of the 	<p>Diversity Beyond Gender Extend Ventures⁴⁸</p> <p>British Business Bank, 21 July 2020⁴⁹</p> <p>The Mastercard Index of Women Entrepreneurs, 2021⁵⁰</p> <p>Investing in Women Code Progress Report, 2021⁵¹</p>	<p>Work done through the UK Government’s Investing in Women Code has led to a positive</p>
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⁴⁸ [Diversity Beyond Gender | Extend Ventures](#)

⁴⁹ [21/07/20 - Future Fund publishes diversity data of companies receiving convertible loan agreements - British Business Bank \(british-business-bank.co.uk\)](#) *caveat - only 2% of funding went to the Devolved Nations (Scotland, Wales and Northern Ireland).

⁴⁹ [21/07/20 - Future Fund publishes diversity data of companies receiving convertible loan agreements - British Business Bank \(british-business-bank.co.uk\)](#)

⁵⁰ [The Mastercard Index of Women Entrepreneurs](#)

⁵¹ [The Annual Investing in Women Code report - GOV.UK \(www.gov.uk\)](#)

	<p>Investing in Women Code shows that all-female teams account for only 10% of investment pitches that reach signatory firms, and only 6% of teams that receive funding are all-female. The market average for Venture Capital (VC) investors is 4% for all-female teams.</p> <ul style="list-style-type: none"> • From angel investors, data from 9 signatories shows that only 16% of the pitches were from all-female teams, however “more all-female teams reached the next stage of investment (a 47% success rate) than their all-male counterparts (a 32% success rate).” • “Over the past five years the gap between female and male-led companies securing institutional investment has widened.” • “Over the past five years, excluding first round investments, the average value of female-led investments was £833,754 per investment vs £3,219,146 for male-led investments.” <p>Postdoctoral Researchers</p> <ul style="list-style-type: none"> • 2021 – From the pool of researchers eligible for UK Royal Society’s early career fellowship funding, “42% are female, a proportion which has remained essentially steady during this time, but which masks lower 	<p>Pathways: A New Approach for Women in Entrepreneurship⁵²</p> <p>The Profile of postdoctoral researchers in the UK eligible for Royal Society early career fellowship programmes, CRAC⁵³</p>	<p>impact in the targeted data collection, transparency, and active interventions to drive female entrepreneurship that are undertaken by Code signatories.</p> <p>The difference in average value of female led investments may be in part due to sectoral differences. More analysis would need to be undertaken on a sectoral basis to take account of different sectoral circumstances and baseline values.</p> <p>More work needs to be done on cross-analysis of different sectors to see if this trend differs from innovative sector to sector.</p>
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⁵² [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/pathways-a-new-approach-for-women-in-entrepreneurship/pages/10_to_12.aspx)

⁵³ [Profile-of-postdoctoral-researchers-in-UK-eligible-for-RS-early-career-fellowship-programmes.pdf \(royalsociety.org\)](https://royalsociety.org/profile-of-postdoctoral-researchers-in-uk-eligible-for-rs-early-career-fellowship-programmes.pdf)

	<p>proportions in physical sciences and engineering and higher in biomedical and biological sciences, but also different gender profiles with nationality.”</p> <ul style="list-style-type: none"> • “The proportion of women researchers in the Royal Society ‘A’ subjects (physical sciences, engineering, maths, computing) at 27% is substantially lower than in the ‘B’ subjects (57%), and lowest in the subjects of engineering and physics (both 23%). Detailed analysis suggests the proportion of UK researchers that [are] female is actually falling.” <p>Patenting Activity</p> <ul style="list-style-type: none"> • “Female participation in patenting activities increased at a faster pace than the average rate at which all patent applications grew over the period 2004-15.” • Yet “at the current pace, it will be 2080 before women are involved in half of all patented inventions within the five largest IP offices (IP5).” <p>Spinout Founders</p> <ul style="list-style-type: none"> • As of January 2022, “86.4% [of UK spinouts tracked by Beauhurst] had all-male founders contributing to the commercialisation of university research. In contrast, only 2.39% of spinouts had an all-female 	<p>‘Bridging the Digital Gender Divide’, OECD⁵⁴</p> <p>Spotlight on Spinouts 2022 UK Report, Royal Academy of Engineering⁵⁵</p>	
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⁵⁴ [Bridging-the-digital-gender-divide.pdf \(oecd.org\)](https://www.oecd.org/bridging-the-digital-gender-divide.pdf)

⁵⁵ [Spotlight-on-spinouts-2022-uk-academic-spinout-trends-v2.pdf \(raeng.org.uk\)](https://www.raeng.org.uk/spotlight-on-spinouts-2022-uk-academic-spinout-trends-v2.pdf)

	<p>founding team, and 11.2% of companies had at least one female founder.”</p> <ul style="list-style-type: none"> • As of January 2022, 7.69% of UK spinouts had 1 or more female directors. • On spinouts, a key stakeholder consulted for the Innovation Strategy notes: “In order to scale, we will also need wider access to scaleup capital; mechanisms to train, attract and retain specialist talent; more incubation space (particularly laboratories); and better representation of women and other under-represented groups in our founding teams and boards. We, alongside partners across the ecosystem, are working on these challenges, but we need continued support and re-investment. Thankfully, our experience of the creativity, expertise, and energy of our founders, leaves us in little doubt about the potential rewards of doing so.” <p>Caring Responsibilities</p> <ul style="list-style-type: none"> • In November 2022, the majority of working age people receiving Carer's Allowance in Scotland was made up by women (69%) compared to 13% of men. • Unpaid carers are more likely to be aged over 45. In November 2022, 57% of 	<p>National Innovation Strategy stakeholder feedback, 2023⁵⁶</p> <p>Stat-Xplore - Carer's Allowance - Cases in Payment ⁵⁷</p>	<p>More information is needed about how emerging industries can incorporate more flexible working practices to assist this group to return to the workplace.</p> <p>Fair Work principles must be embedded in all</p>
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⁵⁶ [Scotland's National Innovation Strategy \(www.gov.scot\)](http://www.gov.scot)

⁵⁷ [Stat-Xplore - Home \(dwp.gov.uk\)](http://dwp.gov.uk)

	<p>Carer's Allowance claimants were aged over 45.</p> <ul style="list-style-type: none"> In interviews conducted for the Stewart Review, “the majority of the most successful and well-established female entrepreneurs reported being well supported by partners and/or their families in either or both of the home manager and primary carer roles, often fully sharing responsibilities with them.” <p>Inclusive Workplaces</p> <ul style="list-style-type: none"> Intersectionality: In a 2020 ‘Women in STEM’ report, “64% of 400 women surveyed did not feel enough was being done to create inclusive workplaces or educational institutions. Within this: <ul style="list-style-type: none"> over 80% of minority ethnic women; 70% of women aged 35+; 74% of women with caring responsibilities; 90% of disabled women; 80% of LGBT+ women.” Of women surveyed, “60.54% have experienced sexism at work, college or university when trying to progress a career in STEM.” 	<p>Pathways: A new approach for women in entrepreneurship⁵⁸</p> <p>Women in STEM: An Intersectional Analysis of Multiple Discriminations, 2020⁵⁹</p>	<p>actions to encourage diverse hiring practices by private sector employers.</p> <p>A number of the Innovation Strategy’s innovation priority areas are related to STEM specialisms, and therefore work will be done to address inequalities within these sectors through any subsequent interventions through tailored packages of support.</p>
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⁵⁸ Interviews of over 30 women considered to be successful entrepreneurs, in [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](https://www.gov.scot/publications/pathways/summary/pages/10/index.aspx)

⁵⁹ [Women in STEM: An Intersectional Analysis of Multiple Discriminations](https://www.gov.scot/publications/women-in-stem/summary/pages/1/index.aspx)

	<p>Productivity</p> <ul style="list-style-type: none"> “£3.8 billion (equivalent to a 2.7% boost to the Scotland’s GVA or 75,000 new and parttime jobs) could be added to the Scottish economy by levelling up the Scottish female workforce participation to the highest performing region of the UK (Scotland are currently second behind the South West of England).” <p>Gender Pay Gap</p> <ul style="list-style-type: none"> The gender pay gap for full-time employees in Scotland increased from 3.0% in 2021 to 3.7% in 2022 due to men’s hourly earnings increasing at a faster rate than women’s hourly earnings. However, this is still below the gap of 7.2% in 2019 (pre-pandemic) and so continuing the longer-term downward trend. In 2022, the gender pay gap for full-time employees was largest for Skilled trades occupations, followed by Process, plant and machine operatives occupations and Managers, directors and senior officials occupations.³⁵ 	<p>PWC Women in Work Index, 2023⁶⁰</p> <p>Annual Survey of Hours and Earnings, 2022⁶¹</p> <p>Annual Survey of Hours and Earnings, 2022⁶²</p>	
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³⁵ [Annual survey of hours and earnings: 2022- tables](#) *Statistical robustness – Estimates for Process, plant and machine operatives occupations are considered precise. Estimates for Skilled trades and Managers, directors and senior officials occupations are considered reasonable quality.

⁶⁰ [PwC: Scotland could see £4bn boost from levelling-up female workforce | Scottish Financial News](#)

⁶¹ [Annual survey of hours and earnings: 2022 - gov.scot \(www.gov.scot\)](#)

⁶² [Annual survey of hours and earnings: 2022 - gov.scot \(www.gov.scot\)](#)

<p>Pregnancy and Maternity</p>	<ul style="list-style-type: none"> • “By the age of 42, mothers who are in full-time work are earning 11 per cent less than full-time women without children.” <p>Intersectionality with Social Status</p> <ul style="list-style-type: none"> • “When personal characteristics – such as education, region and occupational social class – are controlled for, the motherhood pay penalty for those in full-time work falls to 7 per cent.” <p>Intersectionality with Age</p> <ul style="list-style-type: none"> • “This motherhood pay penalty is entirely associated with mothers who had their first child when they were under 33. The women who became mothers at a younger age earn 15 per cent less than similar full-time women (i.e. those with similar levels of education etc) who hadn’t had children by the age of 42. By contrast, mothers whose first birth was at 33 or older experience a wage bonus of 12 per cent compared to similar women who hadn’t had children.” 	<p>Motherhood Penalty Report, 2016⁶⁴</p>	
<p>Marriage and Civil Partnership</p>	<p>Not applicable</p>	<p>Not applicable</p>	<p>The Scottish Government does not require assessment against this Protected Characteristic unless the policy or practice relates to work, for example HR policies and practices - refer to Definitions of Protected</p>

⁶⁴ [The Motherhood Pay Penalty](#)

			Characteristics document for details.
Race	<p>Entrepreneurial Activity From 2021-22:</p> <ul style="list-style-type: none"> • “The TEA rate among the white ethnic population in Scotland in 2021 was lower than that of the non-white population, at 9.2% compared to 15.5% respectively although within the margin of error.” • “Unlike white TEA which held steady in 2020 and has grown by 31% in 2021, the TEA rate for the non-white ethnic group saw a marked decline in 2020 and with slower growth in 2021 is yet to recover to pre-pandemic levels.” <p>SME Employers 4% of SMEs were run by members of a minority ethnic group in 2021:</p> <ul style="list-style-type: none"> • Four per cent of SME employers in Scotland were Minority Ethnic Group (MEG)-led in 2021, slightly higher than the prior year (two per cent). The proportion in Scotland in 2021 was found to be statistically significantly lower than that in the UK as a whole, at six per cent. In 2021, 94% of businesses did not have any directors or partners in their businesses from ethnic minority groups. 3% of businesses had at least one director/partner from an ethnic minority group. 	<p>Global Entrepreneurship Monitor, 2021/22⁶⁵</p> <p>Small Business Survey Scotland 2021 (Last updated: 12th January 2023)⁶⁶</p>	<p>The Stewart Review highlights the continued lack of trend data on entrepreneurial participation rates and limited data aggregated by gender and ethnicity. This gap has been reinforced by this EQIA.</p> <p>There is a gap in equalities data for innovation active businesses, as outlined in the UK Innovation Survey, and therefore it is unclear as to whether the equalities data for SME employers in Scotland differs if the businesses are innovation active.</p>

⁶⁵ [Global Entrepreneurship Monitor: Scotland Report 2021/2022 \(strath.ac.uk\)](https://strath.ac.uk/global-entrepreneurship-monitor-scotland-report-2021-2022/)

⁶⁶ [Small Business Survey Scotland 2021](https://smallbusinesssurvey.scotland.nhs.uk/) (Last updated: September 2020)

	<ul style="list-style-type: none"> • Intersectionality: In 2022/23 the proportion of female-led, ethnic minority owned businesses in Scotland was 18.67%. <p>Employment Gap</p> <ul style="list-style-type: none"> • Compared with the UK as a whole, Scotland’s population is less ethnically diverse and its minority ethnic population is less likely to be born in the UK. • In 2022, the employment rate for minority ethnic groups aged 16 to 64 was estimated at 67.6 per cent in Scotland. This was lower than the rate for white groups (74.9 per cent), resulting in an employment rate gap of 7.4 percentage points. This is the lowest employment rate gap since the series began. • Intersectionality: The minority ethnic employment rate gap is larger for women than men. In Scotland in 2022, the ethnicity employment rate gap was estimated at 9.7 percentage points for women and at 4.8 percentage points for men. [ONS Annual Population Survey, Jan-Dec 2022]. The wider gap for women than men may be partly attributed to cultural factors for particular ethnic groups. <p>Investment</p>	<p>The Gender Index (2023)⁶⁷</p> <p>ONS Annual Population Survey, Jan-Dec 2022⁶⁸</p>	<p>Fair Work principles must be embedded in all actions to encourage diverse hiring practices by private sector employers.</p>
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⁶⁷ [TGI-2023-Report.pdf \(thegenderindex.co.uk\)](https://www.thegenderindex.co.uk/TGI-2023-Report.pdf)

⁶⁸ [ONS Annual Population Survey, Jan-Dec 2022](https://www.ons.gov.uk/people-in-work/population/population-survey)

	<p>In 2019, over \$13.2 billion was invested in start-ups across the UK, but less than 2% went to all-ethnic founding teams.</p> <ul style="list-style-type: none"> • The UK’s Black and Multi-Ethnic communities comprise 14% of the UK population, yet all-ethnic teams received an average of 1.7% of the venture capital investments made at seed, early and late stage between 2009 and 2019. • “While all ethnic entrepreneurs are underfunded, those who are Black experience the poorest outcomes of all. Just 38 Black entrepreneurs received venture capital funding. Alongside their teams, they received just 0.24% of the total sum invested” – in the last ten years. • Ethnic minority businesses face persistent challenges in accessing finance in the appropriate forms and volumes (Carter et al., 2015; Davidson et al., 2010). • “According to a 2016 survey commissioned by UK Finance (then known as the British Bankers’ Association) and carried out by research firm BDRC Continental, some 73 per cent of black-owned businesses had a higher than average risk rating, compared with 47 per cent 	<p>Diversity Beyond Gender, Extend Ventures⁶⁹</p> <p>Supporting Diversity and Inclusion, Innovate UK⁷⁰</p> <p>“Black-owned Businesses struggle to find investors”, The Financial Times⁷¹</p>	
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⁶⁹ [Diversity Beyond Gender | Extend Ventures](#)

⁷⁰ [InnovateUK: Supporting Diversity and Inclusion in innovation](#)

⁷¹ [Black-owned businesses struggle to find investors | Financial Times \(ft.com\)](#)

	<p>of SMEs as a whole. The survey also found that some 30 per cent of black black-owned businesses were lossmaking.”</p> <ul style="list-style-type: none"> • Mainstream public sector business support is under-utilised by ethnic minority businesses (Kitching et al., 2009). • 59% of funding to senior management teams of mixed ethnicity (2020 Convertible loan agreements from BBB (Future Fund)) <ul style="list-style-type: none"> ○ 23/465 loans went to all BAME management teams (£19.4m) – 4.9%. <p>Productivity</p> <ul style="list-style-type: none"> • Top-quartile companies for ethnic / cultural diversity have been found to be 36% more likely to outperform on profitability (McKinsey Group, 2020). • "The employment rate for Scotland's UK-born minority ethnic population has generally been higher than the rate for the minority ethnic population born outside the UK (68.1% vs. 60.7% respectively in 2021). This difference in outcomes is also illustrated through the employment rate gaps against the overall white 	<p>Supporting Diversity and Inclusion, Innovate UK⁷²</p> <p>British Business Bank, 21 July 2020⁷³</p> <p>Diversity Wins: How Inclusion Matters, McKinsey Group, 2020⁷⁴</p> <p>Analysis of Labour Market Outcomes of Scotland's Minority Ethnic Population⁷⁵</p>	
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⁷² [InnovateUK: Supporting Diversity and Inclusion in innovation](#)

⁷³ [21/07/20 - Future Fund publishes diversity data of companies receiving convertible loan agreements - British Business Bank \(british-business-bank.co.uk\)](#)

⁷⁴ [Diversity Wins: How Inclusion Matters](#)

⁷⁵ [Analysis of Labour Market Outcomes of Scotland's Minority Ethnic Population \(www.gov.scot\)](#)

	<p>population. The minority ethnic employment rate gap for Scotland’s non-UK born population is much larger than this gap for the UK-born population showing that minority ethnic immigrants to the UK face poorer outcomes in our labour market than the minority ethnic population who were born here."</p> <p>Postdoctoral Researchers</p> <ul style="list-style-type: none"> • “13% of UK nationals of known ethnicity are of minority ethnic group backgrounds, mostly of Asian background and only just over 1% Black background.” • “A much higher proportion (almost 29%) is of minority ethnic background when all nationalities are considered together, rising with the increase in researchers of non-EU nationality, particularly driven by males of Asian origin.” • There are “complex variations in relation to the ethnicity of researchers of UK nationality: minority ethnic representation is lowest in physics (7%) and highest in engineering (18%)” • “the proportion of Black researchers (of UK nationality) in the physics or chemistry profiles in 2018/19 is zero (literally 1 	<p>The Profile of postdoctoral researchers in the UK eligible for Royal Society early career fellowship programmes, CRAC⁷⁶</p>	
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⁷⁶ [The Profile of Postdoctoral Researchers in the UK Eligible for RS Early Career Fellowship Programmes](#)

	<p>or 2 individuals), and only 2% in engineering.”</p> <ul style="list-style-type: none"> • “The proportion of Black researchers, however, does not increase substantially when all nationalities are considered, remaining below 1% in physics and highest in engineering at 3%.” • “there remain very few Black role models, of any nationality, despite the changing overall ethnic mix, and this may continue to deter young Black scientists entering the academic workforce. Equally, it begs the question of what ethnicity data to record – the focus has historically been on ethnicity of UK nationals, but this segment comprises under 40% of the eligible researchers (and for engineering under one quarter).” • HESA data (2021): 12,420/51,375 research academic staff are of an ethnic minority background. 	HESA Personal Characteristics Data ⁷⁷	
Religion or Belief	<ul style="list-style-type: none"> • “4.9% of women have experienced religious discrimination at work, college or university when trying to progress a career in STEM.” 	Women in STEM: An Intersectional Analysis of Multiple Discriminations, 2020 ⁷⁸	Fair Work principles must be embedded in all actions to encourage diverse hiring practices by private sector employers.
Sexual Orientation	<ul style="list-style-type: none"> • “Lesbian/Gay/Bisexual women feel less likely to report confidence when speaking about inequalities 	Women in STEM: An Intersectional Analysis of	More information is needed to determine how this group is impacted and how the Innovation

⁷⁷ [Who's working in HE?: Personal characteristics | HESA](#)

⁷⁸ [Women in STEM: An Intersectional Analysis of Multiple Discriminations](#)

	<p>in the workplace and 4.41% have experienced homophobia at work, college or university when trying to progress a career in STEM.”</p> <ul style="list-style-type: none"> • In contrast to non-LGBTQ+ adults, members of the LGBTQ+ community are more likely to be younger, live in deprived areas, report bad general health, be unemployed and have a degree. 	<p>Multiple Discriminations, 2020⁷⁹</p> <p>Sexual Orientation in Scotland 2017: A Summary of the Evidence Base⁸⁰</p>	<p>Strategy’s actions can be used to break down barriers to career progression in innovation priority industries.</p> <p>Fair Work principles must be embedded in all actions to encourage diverse hiring practices by private sector employers.</p> <p>There is limited intersectional data on LGBTQ+ entrepreneurs and innovators in Scotland. Part of the Strategy’s delivery phase and further policy development will include consideration of how this can be improved and barriers addressed through policy development.</p>
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⁷⁹ [Women in STEM: An Intersectional Analysis of Multiple Discriminations](#)

⁸⁰ [Sexual Orientation in Scotland 2017: A Summary of the Evidence Base \(www.gov.scot\)](#)

Stage 3: Assessing the impacts and identifying opportunities to promote equality

Do you think the policy impacts on people because of their age?

Age	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	<p>The Scottish Government's Fair Work criteria will be a condition of any Scottish Government funding provided to businesses as a result of the National Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.</p> <p>Commitment to increased access to flexible working, payment of the real Living Wage, lifelong learning and fair employment, and equal pay for men and women, regardless of age, will be required to be demonstrated in any resulting activity relating to the delivery of the National Innovation Strategy.</p>
Advancing equality of opportunity	Yes	No	No	<p>According to data gathered, spinout founders tend to be older in age. Encouraging spin out and start up activity in higher education institutions should dissipate to younger academics⁸¹, as part of</p>

⁸¹ Academics in this context refer to both academic teaching staff and students.

				the work through the Scottish Technology Ecosystem Review (STER) on entrepreneurial campuses and filter through into emerging sectors identified through the National Innovation Strategy.
Promoting good relations among and between different age groups	Yes	No	No	<p>A strong theme throughout the National Innovation Strategy is one of participation and collaboration. Encouraging the involvement of young people in innovative activity in each of the Strategy's priority areas, and stimulating skills pipelines and career paths for younger people into high value innovation jobs will be a prerequisite for higher education institutions involved in the Strategy's delivery.</p> <p>The Strategy will work to diversify the innovative workforce as new industries emerge, allowing for more inclusive workplaces for people of all ages.</p>

Do you think the policy impacts disabled people?

Disability	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	<p>The Scottish Government's Fair Work criteria will be a condition of any Scottish Government funding provided to businesses. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.</p> <p>Commitment to increased use of flexible working along with a commitment to paying the real Living Wage and equal pay for disabled and non-disabled workers will also be required to be demonstrated.</p>
Advancing equality of opportunity	Yes	No	No	<p>Innovation can help to improve universally accessible technology and work processes, and work will be done to encourage businesses to adopt these inclusive technologies and processes within the workplace.</p> <p>The Scottish Government has invested £75 million in the National Manufacturing Institute of Scotland (NMIS). NMIS is already looking at manufacturing technologies which will help disabled people overcome some of the traditional workplace challenges.</p>
Promoting good relations among and between	Yes	No	No	The low carbon transition of industry will promote good relations with

disabled and non-disabled people			<p>disabled and non-disabled people, through reducing the carbon emissions and waste, ensuring better health, a more prosperous economy and improving the environment.</p> <p>Whilst the National Innovation Strategy promotes good relations among disabled and non-disabled people, it is recognised that disabled people, who may be in lower skilled jobs may be disproportionately affected by any phasing out of low skilled jobs due to the introduction of new technology and industries. Therefore equality of opportunity must be considered in the emergence of new jobs created in emerging highly innovative industries.</p>
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Do you think the policy impacts on people proposing to undergo, undergoing, or who have undergone a process for the purpose of reassigning their sex?

(NB: the Equality Act 2010 uses the term ‘transsexual people’ but ‘trans people is more commonly used)

Gender Reassignment	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government’s Fair Work criteria will be a condition any Innovation Strategy-related funding. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.

Advancing equality of opportunity	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the Innovation Strategy, helping to tackle inequalities faced by individuals in this group, and ensuring no one is left behind.
Promoting good relations	Yes	No	No	The opportunity the National Innovation Strategy presents to diversify the workforce and work processes will allow for more inclusive workplaces for this group in emerging and highly innovative sectors, ensuring that all workers have equality of opportunity, improved workplace flexibility and parity of pay.

Do you think that the policy impacts on women and men in different ways?

Sex	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	<p>The Scottish Government's Fair Work criteria is at the heart of the Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.</p> <p>The National Innovation Strategy will align with the Scottish Government's Fair Work Action Plan.⁸² This is a refreshed action plan setting out actions to</p>

⁸² [Fair Work action plan: becoming a leading Fair Work nation by 2025 - gov.scot \(www.gov.scot\)](http://www.gov.scot)

				<p>promote fair and inclusive workplaces across Scotland. This incorporates actions on tackling the gender pay gap, the disability employment gap, and our anti-racist employment strategy, driving fair work practices for all.</p> <p>The plan includes ensuring new skills investment focuses on areas of job growth aligning with the Scottish Government’s National Mission for job creation, regardless of gender. The National Innovation Strategy creates an opportunity to support this commitment in our plan by breaking down barriers to emerging and high growth sectors.</p>
Advancing equality of opportunity	Yes	No	No	<p>The National Innovation Strategy will work to identify those ‘hidden entrepreneurs’ currently not as visible in Scotland’s Innovation Ecosystem, address the particular barriers they face to accessing support via each of the Strategy’s programmes.</p> <p>The Scottish Government’s Fair Work criteria will be a condition of any funding provided to businesses, helping to tackle inequalities faced by women and men and ensuring no one is left behind, by: addressing the gender pay gap that exists between women and male</p>

				<p>counterparts; investing in workforce development; creating a more diverse and inclusive workplace; and ensure the appropriate use of zero hour contracts (which offer more flexibility and may widely benefit people who may be unable to commit to set working hours due to child care needs).</p> <p>The Scottish Government is undertaking work on attracting and retaining talent in Scotland. As part of this they are considering how to attract and retain women in industrial careers.</p>
Promoting good relations among and between men and women	Yes	No	No	<p>Whilst the National Innovation Strategy promotes good relations among men and women it is recognised that women, who are more likely to be over-represented in lower skilled and lower paid jobs, may be disproportionately affected by any phasing out of these low skilled jobs due to the introduction new technology or industries.</p> <p>Skills Development Scotland are working with the Scottish Government and other partner organisations to promote gender equality across National Training Programmes.⁸³</p>

Do you think that the policy impacts on women because of pregnancy and maternity?

⁸³ [Modern Apprenticeships | Skills Development Scotland](#)

Pregnancy and Maternity	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.
Advancing equality of opportunity	Yes	No	No	The Scottish Government's Fair Work criteria will be a condition of any Innovation Strategy-related funding, helping to tackle inequalities faced by this group and ensuring no one is left behind.
Promoting good relations	Yes	No	No	The opportunity the National Innovation Strategy presents to diversify the workforce and work processes will allow for more inclusive workplaces for this group in emerging and highly innovative sectors, ensuring that all workers have equality of opportunity, improved workplace flexibility and parity of pay.

Do you think the policy impacts on people because of their marriage or civil partnership?

Marriage and Civil Partnership⁸⁴	Positive	Negative	None	Reasons for your decision

⁸⁴ In respect of this Protected Characteristic, a body subject to the Public Sector Equality Duty (which includes the Scottish Government) only needs to comply with the first need of the duty (to eliminate

Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the National Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.
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Do you think the policy impacts on people on the grounds of their race?

Race	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the National Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.
Advancing equality of opportunity	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the National Innovation Strategy, helping to tackle inequalities faced by women and men in this group, and ensuring no one is left behind.
Promoting good relations	Yes	No	No	The opportunity the National Innovation Strategy presents to

discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010) and only in relation to work. This is because the parts of the Act covering services and public functions, premises, education etc. do not apply to that Protected Characteristic. Equality impact assessment within the Scottish Government does not require assessment against the Protected Characteristic of Marriage and Civil Partnership unless the policy or practice relates to work, for example HR policies and practices.

				diversify the workforce and work processes will allow for more inclusive workplaces for this group in emerging and highly innovative sectors, ensuring that all workers have equality of opportunity, improved workplace flexibility and parity of pay.
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Do you think the policy impacts on people on the grounds of their religion or belief?

Religion or belief	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the Innovation Strategy. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.
Advancing equality of opportunity	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the National Innovation Strategy, helping to tackle inequalities faced by women and men in this group, and ensuring no one is left behind.
Promoting good relations	Yes	No	No	The opportunity the National Innovation Strategy presents to diversify the workforce and work processes will allow for more inclusive workplaces for this group in emerging and highly innovative sectors, ensuring that all workers

				have equality of opportunity, improved workplace flexibility and parity of pay.
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Do you think that the policy impacts on people because of their sexual orientation?

Sexual orientation	Positive	Negative	None	Reasons for your decision
Eliminating unlawful discrimination, harassment, and victimisation	Yes	No	No	The Scottish Government's Fair Work criteria will be a condition any Innovation Strategy-related funding. Businesses that are granted funding will need to demonstrate commitment to the Fair Work and Fair Work First principles and equality and employment law.
Advancing equality of opportunity	Yes	No	No	The Scottish Government's Fair Work criteria will be at the heart of the National Innovation Strategy, helping to tackle inequalities faced by individuals in this group, and ensuring no one is left behind.
Promoting good relations	Yes	No	No	The opportunity the National Innovation Strategy presents to diversify the workforce and work processes will allow for more inclusive workplaces for this group in emerging and highly innovative sectors, ensuring that all workers have equality of opportunity, improved workplace flexibility and parity of pay.

Stage 4: Decision making and monitoring

Identifying and establishing any required mitigating action

Have positive or negative impacts been identified for any of the equality groups?	Yes, this Strategy will have positive impacts, providing increasing employment opportunities and access to innovation activity for those with Protected Characteristics.
Is the policy directly or indirectly discriminatory under the Equality Act 2010 ⁸⁵ ?	No. There is no evidence within this EQIA to suggest that the policy is directly or indirectly discriminatory under the Equality Act 2010.
If the policy is indirectly discriminatory, how is it justified under the relevant legislation?	N/A
If not justified, what mitigating action will be undertaken?	N/A

Describing how equality impact analysis has shaped the policy making process

This Public Sector Equality Duty requires public authorities to, with respect to people with protected characteristics, eliminate discrimination, harassment and victimisation; advance equality of opportunity; and foster good relations between persons who share a protected characteristic and those who do not. This EQIA has examined these three needs and has found no evidence of negative impacts for people with protected characteristics at this time, however we will keep this under review as part of the monitoring of this EQIA.

This EQIA has identified areas where there are potential direct and/or indirect impacts on different groups and where work can be taken forward to promote equality. Examples of where and how our approach to developing the National Innovation Strategy has been shaped and informed by the process of undertaking this EQIA are set out below.

Inclusive innovation

By definition, inclusive innovation “enables as many people as possible to contribute to and participate in innovation and its spillovers.”⁸⁶ It is the ambition of the National Innovation Strategy that as many of Scotland’s citizens are provided with the opportunity to engage with and access Scotland’s thriving innovation ecosystem, and play their part in our journey to becoming one of the most innovative small nations in the world.

⁸⁵ See EQIA – Setting the Scene for further information on the legislation.

⁸⁶ [Opening the Innovation Economy: the Case For Inclusive Innovation in the UK](#), p.7

Contribution and participation will be considered at all stages of the innovation lifecycle:

- The design of strategies, priorities and mechanisms that empower innovation activity
- The delivery of innovative processes and activities; and
- The diffusion of the benefits and proceeds from innovation throughout the economy.



Figure 1: Opening the Innovation Economy Inclusive Innovation Diagram

Source: [Opening the Innovation Economy: the Case For Inclusive Innovation in the UK](#)

A number of respondents to the National Innovation Strategy's Call for Evidence highlighted the importance of involving communities and citizens in setting and co-creating innovative solutions to deliver social and socially responsible innovation, as well as the importance of social and community innovation as an important part of the wider innovation ecosystem. This was highlighted as beneficial in achieving societal and economic ambitions. Social innovation was highlighted as particularly important in rural areas of Scotland, as was the role of colleges in widening access to participation in innovation activity.

Therefore the National Innovation Strategy's narrative clearly outlines the importance of involving communities and citizens in resulting cluster activity, in setting and co-creating innovative solutions to deliver social and socially responsible innovation, as well as the importance of social and community innovation is an important part of the wider innovation ecosystem. The Strategy's Cluster Programme and approach to growing priority clusters will therefore be built on collaboration and partnership, including those actors who have a positive impact on widening participation in innovation activity and have expertise in involving communities.

The engagement and discussion about the social aspect of innovation in the Strategy's development process has led to clear examples in the Strategy of social innovation's significant importance to Scotland's rural populations and its positive effect on labour productivity. Highlighting OECD evidence illustrating that the highest productivity gains in Scotland over the last few years came from rural businesses innovating to make better use of resources, the National Innovation Strategy's National Productivity Programme will take a place-based approach to support more of our SMEs to innovate to increase their productivity.

In developing the National Innovation Strategy we have considered "hidden innovation actors" within the ecosystem who are not currently as visible to innovation support and activities. Through the delivery of the Strategy we will take steps to widen access to, and impact of, the innovation ecosystem to break down barriers for female entrepreneurs, stimulate innovative business opportunities for individuals from ethnic minority backgrounds, provide equal employment opportunities for those with disabilities in high growth innovation priority areas, and encourage an entrepreneurial mindset in Scotland's young people and promote career opportunities in highly innovative sectors.

Through the delivery of the Strategy we will encourage community and people-driven engagement in Scotland's innovation landscape, to ensure all of Scotland's citizens have the opportunity to contribute in our journey to becoming one of the most innovative small nations in the world.

Recommendation areas and priorities

The following list of recommendation areas and priorities have been shaped by this EQIA.

1. We will measure our innovation performance and benchmark this against other nations in an annual Innovation Scorecard.

Innovation is multi-faceted, and has broad-reaching impact across a number of interconnecting elements of the economy, society and environment. Measuring innovation activity and its broader impact is therefore complex.

A condensed scorecard of indicators and metrics has been created, to be used with our partners so that we have a clear picture of Scotland's innovation performance against agreed targets over the next ten years. Consisting of ten metrics to measure the different aspects of Scotland's innovation ecosystem, there will also be a commitment to capturing and measuring diversity and inclusion data in each metric.

Where diversity and inclusion data is not currently captured or available, we will undertake work alongside our higher education institutions, industry and public sector agencies to capture and incorporate this data in future.

The Innovation Scorecard will track the following indicators:

- The generation of new ideas within universities and the private sector

- Patents granted
 - Academic income from business and community interactions
- The movement of early-stage research to being closer to market
 - Risk capital (deals under £10m)
 - Business Enterprise Research and Development (BERD) jobs (as % of 16/64 labour force)
- The realisation of the early economic benefits of innovation
 - High growth businesses
 - Later-stage equity (deals £10m and over)
- Organisations that are adopting innovation and have become innovation active
 - % of innovation active businesses
- Expenditure on research and development
 - Gross Expenditure on Research and Development (GERD) as a % of Gross Domestic Product (GDP)
 - Business Enterprise Research and Development (BERD) as a % of GDP
 - Higher Education Research and Development (HERD) as a % of GDP
 - Government Expenditure on Research and Development (GovERD) as a % of GDP

2. We will identify and promote the innovative technologies and sectors in which Scotland has clear potential to lead the world and we will take a cluster-building approach to supporting these areas to become world leading.

We will work with our innovation priority clusters to ensure that we do not take a narrow approach and that we are incentivising the consideration of people and places in our innovation cluster development, in accordance with the 'Place Principle'.⁸⁷

As part of cluster evaluation and facilitation process, we will work with our skills and education systems to ensure national alignment to these priorities, that there is sufficient visibility and access, and that we have a pipeline of diverse talent coming through to engage with these jobs and opportunities. This evaluation process will include identifying specific barriers and opportunities for those with protected characteristics in each innovation priority area, seeking out opportunities to widen participation in emerging sectors, and more effectively harness the potential innovative talent Scotland has to offer.

3. We will adopt an investor mindset to supporting our most innovative businesses – investing where we have a competitive advantage and providing a comprehensive and co-ordinated package of support.

⁸⁷ [Place Principle: introduction - gov.scot \(www.gov.scot\)](https://www.gov.scot/place-principle-introduction)

We will take a place-based approach to reviewing the landscape, considering the impact of innovation support across the whole of Scotland including its rural communities. We will ensure innovation funding support is visible and accessible for all of Scotland's innovative businesses, including female and ethnic minority founders.

4. We will transform our commercialisation landscape, strengthening the role that our research base plays in driving economic and societal prosperity.

Supported by new evidence and analysis, and linking to other initiatives such as the development of entrepreneurial campuses and UKRI's work on commercialisation, a new Research Commercialisation Framework will consider how best to widen the opportunities for people from diverse and underrepresented backgrounds and communities to participate in commercialisation activity. We will work with our higher education institutions in particular on supporting spinouts led by women and ethnic minority founders.

5. We will rapidly increase the rate and scale at which innovations are adopted in Scotland – by businesses, by communities, and by the public sector.

The National Productivity Programme will work over the ten-year lifetime of the Strategy to deliver an ambitious increase in the level of innovation taking place across the whole of Scotland – in raised productivity, improved societal outcomes, and a more inclusive innovation economy.

To help incentivise firms to innovate, we will work with industry to develop appropriate forums and awards to recognise and promote examples of exceptional leadership in business-led innovation. This will highlight firms of all sizes, and individuals from all backgrounds, that have achieved transformative business success by adopting innovation. There will be a clear emphasis on recognising pioneers in underrepresented areas, including firms in sectors with proportionally lower levels of innovation overall and innovators from underrepresented groups.

Programme monitoring and review

We will further ensure that the National Innovation Strategy's programmes are developed with diversity and inclusion at their heart and that suitable metrics and indicators are utilised to monitor this. Consideration will be given to how to incorporate wider societal and environmental impact measures through delivery activity.

This EQIA analysis will be kept under regular review and develop over the ten year lifecycle of the Strategy, seeking to incorporate additional data on equalities, diversity and inclusion as data becomes available.

Delivering innovation

One of the core themes of the National Innovation Strategy is about delivering innovation and concerns three key areas of focus: people, place and partnerships. To fulfil the vision of the Strategy we must ensure that our requirements around skills and talent are clearly articulated and that people and place are considered in the delivery plans.

We will ensure that we are developing and delivering innovation across the ecosystem with an approach that embraces all the diversity of Scotland, its people and its places. We will look at how we can ensure that we are encouraging and enabling partnerships to be formed across disciplines to collaborate on the challenges and opportunities facing Scotland. We will look at how we can build new networks and partnerships across the ecosystem both within Scotland and beyond, and ensure that delivery positively impacts groups with protected characteristics.

Stage 5: Authorisation of EQIA

Please confirm that:

- This Equality Impact Assessment has informed the development of this policy:

Yes No

- Opportunities to promote equality in respect of age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation have been considered, i.e.:

- Eliminating unlawful discrimination, harassment, victimisation;
- Removing or minimising any barriers and/or disadvantages;
- Taking steps which assist with promoting equality and meeting people's different needs;
- Encouraging participation (e.g. in public life);
- Fostering good relations, tackling prejudice and promoting understanding.

Yes No

- If the Marriage and Civil Partnership Protected Characteristic applies to this policy, the Equality and Impact Assessment has also assessed against the duty to eliminate unlawful discrimination, harassment and victimisation in respect of this Protected Characteristic:

Yes No Not applicable

Declaration

I am satisfied with the equality impact assessment that has been undertaken for Scotland's National Innovation Strategy and give my authorisation for the results of this assessment to be published on the Scottish Government's website.

Name: Stephen O'Neill

Position: Deputy Director, Entrepreneurship and Innovation

Authorisation date: 8 August 2023

Equality Impact Assessment – Results

Title of Policy	<i>Scotland's National Innovation Strategy</i>
Summary of aims and desired outcomes of policy	The National Innovation Strategy sets out an aim for Scotland to become one of the most innovative small nations in the world within the next ten years, by utilising innovation to grow our economy, create jobs and deliver priority outcomes.
Directorate	Directorate for Economic Development

Executive Summary

The Public Sector Equality Duty requires the Scottish Government to pay due regard to the need to meet its obligations under the Equality Act 2010 by assessing the impact of applying a proposed new or revised policy or practice upon equality. Therefore, the Scottish Government undertook an Equality Impact Assessment (EQIA) as part of the process to develop the National Innovation Strategy.

An EQIA aims to consider how a policy may impact, either positively or negatively, on different sectors of the population in different ways. Equality legislation covers the protected characteristics of: age, disability, gender reassignment, sex, pregnancy and maternity, marriage and civil partnership, race, religion and belief, and sexual orientation.

Initial scoping found a lack of captured diversity and inclusion data on innovation activity, which has informed a commitment within the National Innovation Strategy to collate data where diversity and inclusion data is not captured or available, and to consider how this can be incorporated into future policy development.

Initial scoping also found that female entrepreneurs find it difficult to access and navigate innovation investment. The National Innovation Strategy will therefore ensure innovation funding support is visible and accessible for all of Scotland's innovative businesses, including those founded and led by women. The National Innovation Strategy's recommendations for an Innovation Investment Review will pay attention to the Stewart Review's commitments to improving proportionality of investment for female entrepreneurs and the need for inclusive investment models.

This Strategy also directly intersects with the work of the Stewart Review through its recommendations surrounding commercialisation and supporting growth in spinout activity. Activity on commercialisation and diversifying spinout activity will align and compliment those recommendations within the Stewart Review that aim to improve entrepreneurial access pathways for female entrepreneurs and the quality of start-up education for women.

As the innovation priority areas identified within the Strategy are emerging and high growth sectors that are increasingly prone to adopting new and innovative technologies, there is an opportunity to influence the diversification of the workforce

at an early stage. It is anticipated that new jobs will be available as a result, which will need to be accessible for those across the range of protected characteristics, ensuring new jobs do not negatively impact these groups by creating barriers to employment and inclusion.

The Scottish Government will commit to a regular review of the EQIA in light of any new data and evidence that comes to light over the lifetime of the National Innovation Strategy.

Background

During the development of the National Innovation Strategy, the Scottish Government has engaged with a wide variety of stakeholders on the themes of inclusive innovation and promoting the positive impacts of innovative activity for all of Scotland's citizens.

A core consideration in development of the National Innovation Strategy was to ensure a wide engagement and consultation process, ensuring that a diverse range of opinions and insights were captured in a number of ways, including:

- A call for evidence exercise in June 2022, receiving over 60 responses from across industry, the public sector and academia which were analysed to consider specific suggestions and consideration related to equality and people with protected characteristics.
- Workshops and Roundtable Events, including:
 - A Rural Innovation Workshop, incorporating project leads from the OECD Rural Innovation Project (of which Scotland is a test site)
 - A stakeholder event co-delivered with the Royal Society of Edinburgh
 - A roundtable event for members of the investment community
 - An Infrastructure Workshop with key representatives from across Scotland's innovation infrastructure system
 - A Metrics Workshop run by Scottish Government economists, involving experts from higher education and innovation research organisations
 - Workshops held by workstream sponsors from the Innovation Strategy's Senior Steering Group, consisting of key stakeholders from industry, academia and the public sector
 - Three themed business roundtables focussing on early stage, established corporate and rural businesses, co-delivered with our Enterprise Agencies and with over 70 businesses represented
 - A roundtable event on Foreign Direct Investment into University Research and Development, involving Scottish Government and Innovate UK partners, academic experts from across the UK, the Scottish National Investment Bank, innovation experts and the Scottish Funding Council.
- Consultations with individual stakeholders, involving widespread engagement from across the country included with businesses from a range of different sectors and sizes, Industry Leadership Groups, our universities and colleges, our innovation centres, and our enterprise and skills agencies.

- Engagement with stakeholders who have expertise in social innovation and in widening access and co-developed innovation activity in Scotland.

Scope

Programmes within the National Innovation Strategy will be delivered via a phased approach over the next ten years, and this high-level EQIA for the overarching Strategy reflects our current position at the beginning of this process, and additional action we will take to:

- Regularly review the existing EQIA in light of any new data or evidence
- Undertake EQIAs at an appropriate point when a proposed new or revised policy occurs during the ten year lifecycle of this Strategy.

This EQIA has been informed by detailed analysis of existing evidence and data in order to draw out the potential impacts of the policy for the protected characteristics as set out in the Equality Act.

Key Findings

New evidence and data is continually being produced, and so this EQIA has been developed based on available evidence and data at this time.

Age

Data suggests that entrepreneurial activity is greatest among lower age groups, but the average age of spin out founders and SME employers is much higher. Working alongside Scottish Government teams implementing the Scottish Technology Ecosystem Review (STER) and NSET recommendations, the National Innovation Strategy will aim to stimulate an entrepreneurial mindset in Scotland across all ages and entrepreneurs from both business and academia.

Work is ongoing through the Fairer Scotland for Old People: A Framework for Action to increase digital inclusion of older people with the growing technology-based services sector. This is particularly significant for health and social care. “Globally, just over half (55%) of us believe that technological development has the capacity to improve age for a lot of people.” An innovation priority area identified in the National Innovation Strategy is digital health, which will lead the way in improvements in digital health innovation that can impact all of Scotland’s citizens. Innovation activity in this priority area may have a weighted positive effect on older people.

Prioritising collaboration and partnership through the National Innovation Strategy will enable skill sharing opportunities between different actors in the innovation ecosystem, with more experienced entrepreneurs and workers given more opportunities to share their skills and knowledge with young workers.

More analysis of the potential effect and success rate and economic value from entrepreneurial activity of younger people could be done in order to improve success rates across all age groups.

Disability

The National Innovation Strategy will be encouraging high sector growth in our innovation priority areas, creating high value and well-paid jobs. We must ensure that these jobs are accessible to those with disabilities in order to provide equity of opportunity for well-paid jobs for those with the right qualifications, and opportunities further down the skills pipelines to be able to gain the qualifications necessary to work in these sectors.

Stimulating the emergence of new technologies through heightened innovation activity provides an opportunity to remove many of the physical barriers to work that have been in place for past generations of disabled people, through the introduction of equipment and processes that are universally designed, tested and accessible for all. The delivery phase of the Strategy in the recommendations relating to adoption and diffusion will ensure that mechanisms are put in place to ensure these new technologies are suitably accessible and beneficial for wide adoption and use.

Whilst the National Innovation Strategy promotes good relations among disabled and non-disabled people, it is recognised that disabled people who may be in lower skilled jobs may be disproportionately affected by any phasing out of these low skilled jobs due to the introduction of new technology and industries. However opportunities to close the existing disability pay gap can arise through the recruitment, or reskilling of people with protected characteristics to undertake new jobs, transformed jobs or substituted jobs in new and emerging industries.

Disability may create barriers to accessing appropriate training / support, affecting the diversity and accessibility of talent pipelines of emerging innovative sectors. Mitigating action will need to be undertaken in collaboration with skills and education policy areas to ensure that the training and support available for transition into appropriate roles in emerging highly innovative sectors is accessible for those with a disability.

Gender Reassignment

As recommended in the Trans People and Work Survey Report by LGBT Health and Wellbeing⁸⁸, more can be done to promote positive visibility in new and emerging industries to attract diverse talent and promote inclusion. Work through the National Innovation Strategy's Productivity Programme will involve Skills Development Scotland (SDS) working with enterprise agencies and other partners to ensure we are investing in skills demanded by our prioritised sectors, exposing a more diverse range of talent to emerging opportunities where possible.

⁸⁸ [Trans-People-and-Work-Survey-Report-LGBT-Health-Aug-2021-FINAL.pdf \(lgbthealth.org.uk\)](#)

More information is required to determine how this group is impacted and how the National Innovation Strategy can be used to break down barriers to a career in emerging industries.

Sex

The Scottish Government has a priority to address women's labour market inequality and to close pay gaps, with Scotland's labour market strategy committing to "continuing to tackle inequalities around pay gaps and occupational segregation in the labour market."⁸⁹

Analysis undertaken for A Trading Nation, Scotland's Export Growth Plan found that "the priority sectors identified for specific focus in delivery [of the plan had] a lower proportion of female employees than Scotland overall (43.4% v 48.3%). These priority sectors include Engineering and Advanced Manufacturing and Energy (16.5% and 15.7% respectively),"⁹⁰ which map onto the innovation priority areas outlined in the National Innovation Strategy.

Part of the National Innovation Strategy's Productivity Programme will involve Skills Development Scotland (SDS) working with enterprise agencies and other partners to ensure we are investing in skills demanded by our prioritised sectors, including a more equal gender balance of talent where possible.

The lower percentage of female founders, CEOs and Board members is highlighted in the National Innovation Strategy. It is worth noting that the percentage of female-led companies differs according to sector, with the Health Wellbeing and Social Care sector sitting at 39% compared to lower rates in Information, Communications and Technology (15%) and Financial Services (10%).⁹¹ The Scottish Government also has a commitment through the Scottish Technology Ecosystem Review (STER) and Stewart Review to facilitate an increase in support for female entrepreneurs, in both the tech sector specifically and the wider economy. Work to bring hidden female entrepreneurs to light as part of Scotland's innovation ecosystem will align with the work outlined in the Stewart Review on widening access to entrepreneurship for women and minorities, as well as the NSET work in creating new pathways into entrepreneurship through a variety of new means.

Working alongside Scottish Government teams implementing the Scottish Technology Ecosystem Review (STER), NSET and the Stewart Review, the National Innovation Strategy will aim to stimulate both an entrepreneurial and investor mindset in Scotland and improve access to innovation investment and support mechanisms for female entrepreneurs, addressing the particular barriers faced. For example, positive results are already being seen through the Stewart Review's Recommendation 11, where the Scottish National Investment Bank (SNIB) acts as a limited partner to 'cornerstone' a fund, fund managers should have at least 20% of their senior investment personnel being women, with proven results in diversifying

⁸⁹ [Scotland's Labour Market Strategy \(www.gov.scot\)](http://www.gov.scot), p.22.

⁹⁰ [Equality Impact Assessment: A Trading Nation – a plan to grow Scotland's Exports \(www.gov.scot\)](http://www.gov.scot)

⁹¹ [Pathways: A new approach for women in entrepreneurship - gov.scot \(www.gov.scot\)](http://www.gov.scot)

investment recipients. We will work to evaluate the proportion of funding provided to female innovators and female-led businesses as part of our Innovation Funding Review, and seek to mitigate any imbalances.

Opportunities to close the existing gender pay gap can arise through the recruitment, or reskilling of people with protected characteristics to undertake new jobs, transformed jobs or substituted jobs in new and emerging industries.

Pregnancy and Maternity

More information is required to determine how this group is impacted and how the National Innovation Strategy can be used to break down barriers to a career in emerging industries.

Marriage and Civil Partnership

More information is required to determine how this group is impacted and how the National Innovation Strategy can be used to break down barriers to a career in emerging industries.

Race

Working alongside Scottish Government teams implementing the Scottish Technology Ecosystem Review (STER), NSET and the Stewart Review, the National Innovation Strategy will aim to stimulate both an entrepreneurial and investor mindset in Scotland and improve access to the innovation ecosystem and its support mechanisms for ethnic minority entrepreneurs, addressing the particular barriers faced.

Data points particularly to barriers to investment for ethnic minority founders at a UK level. The National Innovation Strategy's funding review will evaluate the balance of public sector innovation funding at a Scotland-wide level, and work on the commercialisation recommendations within the National Innovation Strategy will include how to further support an increase of ethnic minority spin out founders from Scotland's universities.

Opportunities to close the existing race pay gap can arise through the recruitment, or reskilling of people with protected characteristics to undertake new jobs, transformed jobs or substituted jobs in new and emerging industries.

Religion or Belief

More information is required to determine how this group is impacted and how the Innovation Strategy can be used to break down barriers to a career in emerging industries. However the National Innovation Strategy is anticipated to have a positive impact on people from all religious backgrounds as a result of the opportunities that will be provided by the increased opportunities for flexible working in new and emerging industries across the whole of Scotland.

Sexual Orientation

The National Innovation Strategy is anticipated to have a positive impact on this group as a result of the opportunities that will be provided by the increased opportunities for new, good, green, high value jobs in the innovation priority areas across the whole of Scotland. This will help advance equality of opportunity by providing the opportunity for this group to learn new skills, upskill or reskill, create more inclusive and diverse work places and provide more flexible working opportunities for people in this group through emerging industries' adoption of Fair Work practices.

As above, work through the National Innovation Strategy's Productivity Programme will involve Skills Development Scotland (SDS) working with enterprise agencies and other partners to ensure we are investing in skills demanded by our prioritised sectors, exposing a more diverse range of talent to emerging opportunities where possible.

Intersectionality

There is data to suggest that particular intersections between gender and multiple other protected characteristics give rise to additional barriers. Consideration of parttime or more informal working arrangements via tailored support for specific needs within new high-paid work opportunities presented through the National Innovation Strategy will help to mitigate marginalisation.

More data information is required on the multiple intersectional barriers to innovation activity, however through the various impacts on people with protected characteristics identified in this EQIA, it is anticipated that a number of barriers to working in new or emerging industries will be captured and mitigated.

Conclusion

The National Innovation Strategy provides an opportunity to become one of the most innovative small nations in the world, building expertise in a number of different economic areas by utilising the breadth and diversity of talent and expertise across Scotland. Growing and scaling our innovation priority areas to become world leading in an inclusive way will ensure that we harness Scotland's full potential and deliver positive impacts for all of Scotland's citizens.

A ten year Strategy provides the opportunity to scale the number of new high value jobs in a range of rapidly growing sectors, nurturing diverse pipelines of talent and providing careers for people across all of the protected characteristic groups for now and in future decades to come.

The findings of this EQIA will be used in wider policy making decisions to tackle and address inequalities and socio-economic issues. The National Innovation Strategy sets out an ambitious ten year programme, and it is not anticipated that changes to equalities outcomes as a result of related programmes of work will be immediate, but a gradual change over a number of years is more likely to be seen.

This EQIA did not identify any negative impacts on people with protected characteristics from implementation of this policy, and there are numerous areas within the National Innovation Strategy that will have a positive impact on people with protected characteristics or groups. These include:

- Taking a tailored approach to evaluating and addressing the unique barriers and opportunities within each of the innovation priority areas
- Reviewing innovation funding mechanisms and distribution and ensuring access is widened and receipt is more equally distributed between genders
- Targeted intervention to widen the opportunities for people from diverse and underrepresented backgrounds and communities to participate in commercialisation
- Stimulating an entrepreneurial mindset in Scotland
- Emphasising recognition of pioneers in underrepresented areas, including firms in sectors with proportionally lower levels of innovation overall and innovators from underrepresented groups.

This EQIA analysis will be kept under regular review and develop over the ten year lifecycle of the Strategy, seeking to incorporate additional data on equalities, diversity and inclusion as data becomes available.



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