

Investing in skills: International policy insights for the UK

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Contents

Introduction	4
Summary of case studies	7
Depth international case studies	7
Snapshot case studies	17
Key learning	20
Governance and delivery models	20
Employer engagement and incentives	21
Inclusion and equity	21
Programme design: accessibility and flexibility	22
Sustainability and long-term impact	22
Appendix A – Canada, Future Skills Centre	23
Appendix B - Ireland, SkillNet	40
Appendix C - Netherlands, SLIM Subsidy Scheme	55
Appendix D – Singapore, SkillsFuture	
Appendix E - snapshot case studies	87
Annex F - Process for selecting case studies	95

Introduction

Shifts in the UK economy, including advances in technology and the transition to net zero, are impacting job types and skills demand. Employer investment in skills can enable businesses to adapt to changing circumstances and boost productivity. Yet, UK employer investment in training has fallen by 29.5% per employee since 2011.¹ This raises concerns about the UK's economic prospects and the impact of this decline on growth and readiness for economic changes.²

With support from the Nuffield Foundation, Learning and Work Institute (L&W) and the Universities of Strathclyde and Ulster are working together to explore how UK employers make decisions about training, and how employees are responding to the need to upskill and retrain in a transitioning economy. This is a multi-year project, due to be completed in May 2026.

To understand key growth sectors in the UK, where there is significant need for retraining, the research is focused on financial and business services; creative, digital and design; clean technologies; and information and communications.

The research is taking a mixed-method approach, drawing together findings from several strands of work: a review of existing literature; qualitative fieldwork with policy experts, employers, providers and employees; analysis of Employer Skills Survey (ESS) data; and a review of international approaches to training and upskilling. This report presents findings from the international case studies strand. It considers approaches taken to training and upskilling in nine countries and identifies international practice among employers and in public policy which have lessons that can help to shape policy in the UK. As skills policy is devolved in the UK, systems vary across the UK, and so it is necessary to consider comparisons and lessons on a nation-based level.

This report is accompanied by <u>an online interactive framework</u>, which allows for quick identification of key findings and comparison between countries.

Report structure

The report begins with a summary of four depth international case studies and five snapshot case studies. This includes an outline of key policies and lessons learned for the UK context.

The second part of the report explores key learning across all nine case studies with a focus on governance, employer engagement, equity, sustainability, and system integration.

All case studies are set out in full in Appendices A to E.

¹ Employer Skills Survey, Calendar year 2024 - Explore education statistics - GOV.UK

² Stephen Evans (2022), Raising the bar: Increasing employer investment in skills.

Development of case studies

A scoping review was undertaken to identify countries and specific policy initiatives for the four depth case studies (see Annex F). Countries were restricted to those with broadly comparable economies to the UK. In addition to the four depth case studies, the review process identified a number of useful initiatives in other countries. Five snapshot case studies were therefore also included to give a brief overview of these initiatives.

The case studies were informed by desk-based research. Research for the depth case studies was supplemented by five one-hour semi-structured interviews with policy and delivery stakeholders in the countries of focus.³

Each policy initiative is classified under the OECD's framework on types of policy instruments to support training in enterprises which include: information and guidance; capacity-building; financial incentives; direct provision of training; and regulatory instruments. These six policy categories are outlined in the table below.⁴

Instrument name	Examples	OCED-suggested uses for policy instrument
Information and guidance	Awareness raising campaignsInformation servicesGuidance services	Reducing informational barriersReducing attitudinal barriers
Capacity building	 Consultancy services Training employee representatives Funding training networks 	 Reducing informational barriers Reducing attitudinal barriers Reducing financial barriers Reducing time barriers Overcoming coordination problems
Financial incentives	 Subsidies Tax incentives Training levies Loans 	 Reducing financial barriers Reducing time barriers Overcoming coordination problems Unlocking positive spillovers Improving equity of labour market outcomes
Direct provision of training	 Provision of training with specific content 	Reducing financial barriersOvercoming coordination problems

³ It was not possible to conduct an interview with stakeholders in Singapore, and so an equivalent interview was conducted with an OECD policy stakeholder to gain their insight.

⁴OECD (2021) <u>Training in Enterprises – New Evidence from 100 Case Studies</u>. Table 5.2: Overview of policy instruments to support training in enterprises and their rationale, p.115.

Instrument name	Examples	OCED-suggested uses for policy instrument
	 Provision of training with specific mode of delivery 	Unlocking positive spilloversImproving equity of labour market outcomes
Regulatory instruments	LegislationCollective agreementsPay-back clauses	Overcoming coordination problemsUnlocking positive spillovers

The depth case studies provide detailed insight into a specific policy initiative, framed within the country's wider economic and skills policy context. They include:

- Background information about the country's wider economic context, skills needs and skills challenges
- The national skills policy context
- Short summaries of relevant upskilling and retraining policies
- Deep dive into chosen policy initiative
- Lessons learned for the UK context.

The snapshot case studies provide a short overview of a specific policy initiative, with a summary of lessons learned for the UK.

Summary of case studies

This section summarises the four depth international case studies and five snapshot case studies, including an outline of the key policies of focus and lessons learned for the UK context.

A framework providing a comparison of the countries and the policies featured in the case studies can be found <u>online</u>, and full case studies can be found in the appendices.

Depth international case studies

Four countries were selected to be the focus of detailed research on a policy approach towards employer training, the broader context in which this sits, and relevant economic context.

The countries and policy initiatives were selected based on the comparability of their economies to the UK context, their geographical balance and balance in type of policy initiative. Although case studies are not directly comparable to the UK due to differing context in factors such as demographics and the labour market, each of the four policy initiatives offers valuable learning on effective mechanisms to drive up employer investment in training which may be transferred to a UK context.

- Canada (Future Skills Centre) focus on innovation and knowledge generation and are independent from government
- Ireland (SkillNet) employer-funded and driven and independent from government
- Netherlands (SLIM Subsidy Scheme) government led and primarily focused on offering financial incentives to employers
- Singapore (SkillsFuture) government led, well-articulated within the wider policy framework and focuses primarily on offering financial incentives to individuals and employers.

An outline of the main elements and key learning from each case study is provided below.

Canada (Future Skills Centre)

Policy context

Since the COVID-19 pandemic, Canada's labour market has experienced strong employment growth. However, it experiences labour and skills shortages⁵ across sectors, regions, and occupations. Approximately 80% of major employers in Canada

⁵ The term 'skills shortage' is used in this report to refer to areas where there are an insufficient number of people in the workforce with the skills, or level of skills, needed.

report difficulties in finding skilled workers⁶ with different sectors being affected over time. Between 2018 and 2021, skills shortages in Canada were mostly felt in knowledge-based services, whereas the construction sector is the worst affected at present⁷. These skills shortages have had substantial impacts on Canada's economic performance. Additionally, Canada lags globally in AI adoption, with less than 4% of firms indicating that they use AI in their business operations in 2023.⁸ The main barrier to AI adoption identified by Canadian employers is finding employees with AI expertise; 47% of employees interviewed say they have not received enough training on new technologies in the workplace.⁹

Canada lags behind other countries in employer investment in training.¹⁰ Canadian firms invest less in employer-sponsored training than their global peers. This is the case both in terms of the incidence and number of hours of employer sponsored training. Small and medium-sized enterprises (SMEs) are significantly less likely than larger employers to invest in employee training and they amount for most of Canada's employment.

Future Skills Centre

The Future Skills Centre (FSC) was established and funded by the Government of Canada in February 2019. This was in response to the evolving demands of the labour market, driven by technological advancements, demographic shifts, and global economic changes. Although FSC is an independent innovation and applied research centre, its funding is publicly sourced and aims to identify emerging skills, testing innovative approaches for skills development and training, focusing on what works and supporting underrepresented groups.

The FSC covers the capacity building and financial incentives elements of the OECD policy framework. It is a policy initiative that promotes upskilling and retraining independent from government. It is focused on developing innovative skills development solutions and able to use learning drawn from delivery to influence policymaking. FSC is one of the pillars of the Future Skills programme led by the ministry of Employment and Social Development (ESCD). The programme aims to increase access to training that meets evolving needs, with a focus on underrepresented groups. FSC has established a pan-Canadian network of diverse stakeholders, including provincial and territorial governments, Indigenous organisations, industry, educational institutions, and non-profit groups, to support a

⁶ The Business Council Canada (2022), <u>Canada's immigration Advantage: A survey of major employers.</u> This is from a survey conducted by the Business Council of Canada. Approximately 170 member companies of the Business Council of Canada were invited to take part in the survey. A total of 80 companies submitted responses via an online questionnaire.

⁷ Future Skills Centre (2024) <u>Skills and Productivity: Which Skills Shortages Are Impacting Canadian</u> Productivity?

⁸ Future Skills Centre (2024) AI and the Shifting Landscape of Future Skills and the Future of Work

⁹ Future Skills Centre (2024) AI and the Shifting Landscape of Future Skills and the Future of Work

¹⁰ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

national, systemic approach to skills development. As an independent innovation and applied research centre, FSC seeks to combine pan-Canadian strategic partnership building, skills development pilot design, and strong evidence generation to assess and support scalability. It seeks to develop:

- Strategic partnerships: Establish and grow a pan-Canadian, cross-sectoral network to leverage expertise, coordinate investments, build capacity, and identify shared priorities across the skills development ecosystem.
- Labour market research: Conduct forward-looking research to build a robust evidence base on in-demand skills, enabling responsive training strategies and improving outcomes for diverse job seekers.
- Evaluations of innovation: Prototype, test, and rigorously evaluate a portfolio of innovative skills development models to generate actionable evidence on effective practices and scalable solutions.
- Knowledge mobilisation: Disseminate research findings and best practices broadly to inform policy, strengthen community capacity, support future investments, and catalyse systemic change.

Effectiveness

The third-party consortium model has been widely credited for the early success of the FSC in building strong and wide networks. FSC has demonstrated a strong capacity for innovation, offering greater flexibility to test new ideas and scale promising approaches. Despite this, the governance structure has been perceived as complex due to multiple contribution agreements. This creates the potential for accountability tensions.

Lessons learned

There are parallels between FSC and national skills bodies in each of the four UK nations. Skills England is perhaps the closest comparator to the FSC, although there are important differences regarding mandate, funding allocation and autonomy – as an arms-length body, rather than a completely independent agency. The Northern Ireland Skills Council fulfils a similar function, in a more advisory capacity. Research shows that employers in the UK would welcome centralised online information and guidance platforms, such as Canada's Job Bank website which consolidates both training opportunities, but also skills assessment tools If implemented, this would need to take place at a devolved nation level, rather than being UK-wide, due to variations in approaches to qualifications and skills delivery across the UK. Investing in models similar to the FSC requires appetite for risk and trust on behalf of the UK government. This translates into more flexible reporting requirements – currently at odds with monitoring and evaluation requirements set out by the Treasury – and sufficiently long funding agreements. If replicating the FSC model, setting out clear roles and

responsibilities is essential to avoid the complex governance structure identified in this review. The scale of Canada's geography led to challenges in sustaining communities of practice - UK's smaller geography could be an advantage for network cohesion. However, there would need to be an emphasis on ensuring there is involvement from employers outside of those who are already undertaking high levels of training or who are already making use of public funding for training.

Ireland (SkillNet)

Policy context

Ireland has strong employment growth and low unemployment, underpinned by a national goal to create 300,000 additional jobs by 2030.11 Ireland has a young population and high rates of skilled individuals migrating to the country, both of which have significantly contributed to the country's recent economic success. 12 However, Ireland experiences a range of skills challenges, particularly in green skills and digital skills. Two-thirds (66%) of employers in Ireland view upskilling in sustainability as vital over the next two to three years, with large firms leading this shift. A third (33%) of business leaders anticipate that over half their workforce will require green or climaterelated support¹³. One of the most commonly cited challenges in achieving this transition are skills shortages. Currently, 66% of businesses report needing green upskilling - up 12% from 2024 to 2025 - and one in five are already struggling to find staff with the necessary green skills. Digital capability is also under significant pressure: 79% of employers believe their staff will need some level of digital upskilling in the coming years to be able to perform their role.14 Skills shortages are most acute in technical and engineering roles, digital technologies, and regulatory expertise. Employers expect skills shortages to translate into recruitment challenges and are responding by investing in upskilling. Just over two fifths of employers in Ireland (43%) expect to face difficulties in recruiting staff with the necessary skillset to their firms, compared to a global average of 27%.15

Employers in Ireland continue investing in upskilling: 76% of businesses upskilled their staff in the past 12 months, in-line with the 74% reported in 2024. This is substantially higher than the 59% of employers investing in employee training in the UK in 2024. However, only 26% of SMEs have a formal workforce development plan, compared to 83% of larger employers, which typically benefit from more structured resources. Just

¹¹ Government of Ireland (2025) <u>Programme for Government</u>.

¹² SkillNet (2025) <u>Ireland's Talent Landscape 2025</u>; <u>Future Skills Challenges of Irish Business</u>

¹³ Ibid. Survey conducted by Skillnet Ireland in 2025. The research was conducted by Ipsos Behaviour & Attitudes (B&A) through a random sample of 500 businesses, with the sample quota controlled by region, and size of the company to reflect the business demography as defined by the Central Statistics Office (CSO).

¹⁴ SkillNet (2025) <u>Ireland's Talent Landscape 2025</u>; Future Skills Challenges of Irish Business

¹⁵ World Economic Forum (2025) The Future of Jobs Report 2025

¹⁶ SkillNet (2025) <u>Ireland's Talent Landscape 2025</u>; Future Skills Challenges of Irish Business

over two fifths of SMEs (42%) report difficulties recruiting staff with the right skills, particularly in technology, engineering, and digital roles.

SkillNet

SkillNet is the national talent development agency of Ireland, which operates as an arms-length body of the Irish government. It was established in 1999 and is funded from the National Training Fund (NTF) through the Department of Further and Higher Education, Research, Innovation and Science. It also receives contributions from businesses participating in Skillnet Ireland programmes and is ultimately employer-driven. SkillNet has a three-pronged approach, which covers the OECD policy areas of capacity building, financial incentives, and information and guidance. Its activities include:

- Supporting Skillnet Business Networks, which bring together mostly small and medium enterprises (SMEs) to address skill gaps¹⁷ through the development of training plans
- Delivering upskilling initiatives focused on particular sectors (e.g. SkillNet Offshore Wind Academy)
- Delivering Skills Connect, which offers free training programmes and enterpriseled job placements to unemployed individuals.

The organisation works in collaboration with employers to address current and emerging skills needs, with the aim of equipping businesses across sectors with the capabilities required to adapt and grow. The mission of SkillNet Ireland is to support the development of skills that contribute to the productivity, competitiveness, and sustainability of the Irish economy. SkillNet operates through a decentralised, employer-led model made up of 70 SkillNet Business Networks. In addition to this, it also funds and delivers a wide range of upskilling and skills development opportunities for employers and individuals including sector specific upskilling initiatives, networking and mentoring support for employers and Skills Connect.

Effectiveness

A core strength of the organisation's approach to employer engagement lies in its enterprise-led model, which ensures that training is defined and shaped by business needs. This bottom-up structure creates high levels of trust and ownership among businesses, particularly SMEs. Employers are not passive recipients but actively shape the agenda and are responsible for identifying skill gaps, selecting providers and codesigning programmes. An evaluation report showed strong evidence of enduring

¹⁷ Skill gap or skills gap is used in this report to refer to the difference between the current skills of a workforce or employees, and the skills that are or will be needed in the economy, or by employers. On skill gaps, see: OECD (2024) Understanding skill gaps in firms

partnerships in the SkillNet networks, and businesses consistently view SkillNet training as high quality.¹⁸

Lessons learned

There are parallels between NTF and the UK's apprenticeship levy (£3.8 billion raised in 2023/24). In particular, the reform of the levy into the Skills and Growth Levy will introduce increased flexibilities in the training that it can fund, with some similarities to the NTF. However, in Northern Ireland, Scotland, and Wales, the link between funds raised by the apprenticeship levy and skills is not present. Funds raised by the levy are collected and then distributed back to the devolved governments as part of the block grant, rather than being ringfenced for skills and training.

Lessons from the NTF may also include its strategic distribution of funding to key policy initiatives. However, there are also key differences in labour market characteristics across both countries – Ireland has a younger demographic than the UK (and the EU), faster economic growth following the pandemic than the UK, and a sizeable proportion of Ireland's workforce is employed by multinationals¹⁹ Despite this, a similar sector-based, co-investment structure could incentivise greater employer commitment to training in priority industries, while leveraging industry-led networks to shape provision. This could work well in UK growth sectors such as green tech, advanced manufacturing, or life sciences.

Netherlands (SLIM Subsidy Scheme)

Policy context

The Netherlands has high levels of basic digital skills and a high proportion of ICT specialists in employment. In 2024, 82.7% of the population in the Netherlands had basic digital skills, according to the 2025 EU Digital Decade report.²⁰ This is broadly comparable to the UK, where 82% of the workforce are estimated to have the essential digital skills needed for work compared to the EU average of 55.6%.²¹ Despite this, the Netherlands expects to see severe and widening labour market shortages, particularly in digital and technical professions essential to the climate and digital transitions. According to the Green and Digital Jobs Action Plan, the country had nearly 36,000 ICT vacancies as of mid-2022, with demand projected to grow by over 58,000 ICT

¹⁸ Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020.

¹⁹ A large proportion (27%) of the workforce in Ireland is employed by multinationals. American multinationals account for 74% of turnover generated by foreign-owned multinationals in Ireland. See: Ireland Central Statistics Office (2024) <u>Business in Ireland 2022 - Insights on Multinationals</u>
²⁰ European Commission (2025) <u>Digital Decade 2025 Country Reports: Netherlands</u>

²⁰ European Commission (2025) <u>Digital Decade 2025 Country Reports: Netherlands</u>
Lidija Kralj (2023) <u>The Netherlands: a snapshot of digital skills</u>., Digital Skills and Jobs Platform
The figures for the Netherlands and the UK are not directly comparable as the UK is not included in the EU's Digital Decade reports

²¹Lloyds Bank (2024) <u>Consumer Digital Index</u>. This report draws from a database of behavioural and transactional data for 1 million consumers in the UK and conducts telephone interviews with around 2700 people.

professionals by 2026. These shortages are affecting critical sectors related to the transition to net-zero and include both traditional technical skills (e.g. metalworking and engineering) and newer digital roles such as data science, cybersecurity, programming, and Agile methodologies²². The Netherlands is experiencing a higher-than-average exposure to AI disruption, with 95% of businesses agreeing that they are likely to be affected by automation processes, compared to an 88% global average.²³ Dutch employers also report a lack of essential employment skills - particularly communication, teamwork, adaptability, and safety awareness - which are increasingly critical in digitally enabled, collaborative work environments.²⁴ In the Netherlands, there is a gap between the skills needs of employers and the available skills in the workforce in digital and green skills. This appears to be partly structural: driven by an ageing workforce, low enrolment and high dropout rates in technical education. Over half (56%) of Dutch employers across all sectors expect hiring to remain difficult through 2030.²⁵

SLIM Subsidy Scheme

The SLIM (Stimuleringsregeling Leren en ontwikkelen in mkb-ondernemingen)²⁶ Subsidy Scheme was launched in 2020 by the Dutch Ministry of Social Affairs and Employment. SLIM involves approaches that cover the information and guidance and financial incentives elements of the OECD policy framework. The SLIM Scheme covers part of employers' training costs, depending on the company size: namely 80% for small enterprises and 60% for medium enterprises. The scheme is intended primarily for SMEs, although large employers can apply for the subsidy either as part of the consortia strand or if operating in the agriculture, hospitality and recreation sectors. SLIM also offers support to employers in developing a learning and development plan. SLIM specifically targets SMEs in response to the fact that they are less likely to invest in on-the-job learning; however, SLIM supports collaborative consortia, which large employers are eligible for. These may include sector training funds, educational institutions, employers' associations, and regional development bodies. The scheme is open to individual employers, childcare agencies, and collectives (e.g. sector organisations or training funds). SLIM has prioritised a collaborative approach, encouraging joint applications and shared learning infrastructure. Applicants receive support from government-supported agencies to design approaches to training.

The financial support available through SLIM can support with:

²² House of Representatives of the States General (2023) <u>Letter from the government; Tackling labour</u> <u>market shortages in the climate and digital transition: The Green and Digital Jobs Action Plan - Labour market policy - Parliamentary Monitor</u>

²³ World Economic Forum (2025) Future of Jobs Report 2025

²⁴ House of Representatives of the States General (2023) <u>Letter from the government; Tackling labour</u> market shortages in the climate and digital transition: The Green and Digital Jobs Action Plan - <u>Labour</u> market policy - Parliamentary Monitor

²⁵ World Economic Forum (2025) Future of Jobs Report 2025

²⁶ 'Incentive Scheme for Learning and Development in SMEs'

- An internal skills audit or organisational needs analysis
- Careers advice or coaching aimed at employees
- Development or implementation of learning and development methods, such as elearning, mentorship models, or internal academies
- Practical learning placements.

Effectiveness

SLIM projects were found to often act as catalysts for wider organisational change. This is likely to be the result of the scheme's emphasis on skills analysis and learning culture, alongside the wraparound support offered. According to SLIM's interim evaluation, for many SMEs, SLIM acted as a trigger for strategic thinking about workforce development. However, administrative demands related to the application process deter smaller businesses from applying. Additionally, almost all the employers that were granted a SLIM subsidy were already supporting employees' learning and development activities (96% of employers), which may point to shortfalls in outreach and employer engagement strategies. This highlights the risk that funds may be used by employers to reduce the cost of training they would have otherwise still provided. However, it may also demonstrate that SLIM may play a role in reinforcing and support existing good practice among employers. One strand of SLIM applications was open to consortia, which were found to simplify access to SMEs. An evaluation of SLIM found that, in practice, consortia reduce administrative burdens on individual SMEs by centralising project coordination. One-off funding was seen to be of limited value by employers.

Lessons learned

The transferability of SLIM depends on the existence of a body which provides employers with advice and information to support applicants with co-design, peer exchange, and strategy development.²⁷ An equally independent and trusted organisation would be needed to bridge government and businesses. Simplified grant processes and targeted outreach through trusted intermediaries (e.g., sector bodies, Chambers of Commerce) could boost SME participation. SLIM has been criticised for complex application processes and inaccessible language. A UK version would need plain-language guidance, light-touch bureaucracy, and wraparound support. Without these, uptake could be low and skew toward already-engaged employers. SLIM also demonstrates that standalone financial incentive schemes have limitations. Strong relationships with employers are key to provide wraparound and peer support to generate organisational change and address systemic barriers to underinvestment in training.

 27 In the SLIM scheme, this is an organisation called Katapult. For more information, see the full case study in Appendix C.

Singapore (SkillsFuture Singapore)

Policy context

Singapore's future skills landscape is being shaped by growth in the green, digital, and care economies. Green skills have seen consistent demand, and this is expected to accelerate as climate-related disclosure requirements become mandatory. Small and medium enterprises (SMEs) face challenges from a shortage of digital talent and high technology adoption costs. Meanwhile, Singapore's ageing population is fuelling demand for care-related skills. There is also an increase in demand for creative skills, including in non-creative professions, with 7 in 10 non-creative professionals – namely IT, Engineering, Operations, Sales, and Business Development - requiring creative skills.²⁸

In Singapore, 64% of employers expect their business to be impacted by geoeconomic fragmentation, twice the global average of 34%. This includes increased restrictions to global trade and investment and increased geopolitical division and conflicts ²⁹. The UK follows a similar trend, with 56% of employers identifying geoeconomic fragmentation as a disruptor. In line with global and regional peers, employers in Singapore expect skills gaps, regulatory barriers and organisational resistance to present challenges for business transformation. A large proportion of Singaporean employers also expect broadening digital access and climate adaptation policies to impact their organisations. Seventy one percent of Singaporean employers expect digitalisation to affect their operations, in comparison to 60% worldwide and 64% in the UK. Regarding climate adaptation, most employers in Singapore think that increased efforts and investments to reduce carbon emissions (58%) and adapt to climate change (53%) will impact their business.³⁰

SkillsFuture Singapore

SkillsFuture Singapore (SSG) was launched in 2015 as part of the government's efforts to enhance the capabilities of its workforce and promote lifelong learning. Its activities fall under the financial incentives, capacity building, and information and guidance categories of the OECD framework. SSG is created as part of a wider policy transition from an employer-led to an individual-led approach to workforce development. Prior to 2003, adult education in Singapore was largely supply-driven, with training responsibilities held by employers and the state. SSG is a statutory board established by the Singaporean Ministry of Education (MoE) that coordinates the implementation of the national SkillsFuture movement. The movement focuses on providing advice and guidance for individuals and employers through thematic programmes and on creating an integrated skills provision offer at a national level in partnership with training providers. SSG drives and coordinates policies on lifelong learning, workforce

²⁸ SSG (2025) Skills Demand for the Future Economy Report

²⁹ World Economic Forum (2025) Future of Jobs Report

³⁰ SSG (2025) Skills Demand for the Future Economy Report: Economy Profile: Singapore.

skills development, and training quality assurance. It also leverages data science approaches and expert input to monitor in-demand skills, emerging skills, and future skills for the economy. Through modular, stackable, and industry-relevant training options, the initiative aims to support the acquisition of skills that can be applied across various stages of an individual's career. SSG also offers a range of financial incentives, support and training programmes for individuals and employers. Courses are curated and pre-approved by SSG and relevant sectoral agencies to ensure their quality and alignment with industry needs. Designed to be modular and concise, these courses are delivered through various learning formats, including in-person, online, and hybrid modes.

In line with the individual-focused approach, SSG provides a comprehensive self-serve menu of support on its website. SSG partners with employers, unions, trade associations, and professional bodies to co-design and deliver relevant training initiatives. Partnership working with employers is a key element of the SSG model.

Two types of networks created by SSG are:

- SkillsFuture Queen Bee Networks, which are employer organisations who take on a leading role to champion skills development in organisations, particularly SMEs.³¹
- Skills Development Partners who help SMEs review and aggregate their own skills needs and source for reskilling opportunities.

Effectiveness

Access to SSG training is not evenly distributed across the workforce, with clerical, sales and service workers, as well as production and related workers being less likely to participate. This is likely to be the result of the individual-focused approach of this model, as it does not alter existing labour market trends. This speaks to a wider risk of hyper individualising upskilling initiatives, as it places focus on individuals and not on shifting employers' attitudes or investment.

Lessons learned

In terms of transferability to the UK, the Singaporean government is more centralised than the UK, with a state-guided economy. This is likely to affect the internal and external coordination required to deliver this model. Departmental roles and responsibilities are substantially different in the UK and Singapore, with mid-career upskilling/reskilling and careers advice sitting between two departments and devolved authorities in England, and with devolved governments in the other UK nations. In Singapore's case, this function is centralised in WSG. There are parallels between SkillsFuture Credit and England's Lifelong Learning Entitlement and, where individual-based funding is available to individuals to invest in their own learning. Similarly, there are parallels to initiatives in the UK to provide training advice to

³¹ SkillsFuture Queen Bee Network

employers, such as <u>Business Gateway</u> in Scotland.³² In Northern Ireland, the recently-established Skill Up programme is rolling out micro-credential learning, supported by a subsidy.³³ There are lessons from SSG on the delivery of modular or micro-credentials learning, which can be transferred to Skills England's efforts to roll this out through the Lifelong Learning Entitlement. In Singapore, this approach has required substantial investment but has resulted in an increased access to and participation in training.

Snapshot case studies

Five countries were selected to be the focus for snapshot case studies:

- Germany (Qualification Opportunities Act)
- Australia (Digital Skills Cadetship)
- United States (Inflation Reduction Act)
- New Zealand (Qualifications and Credentials Framework)
- Finland (Continuous Learning Reform)

Germany (Qualification Opportunities Act)

Germany's Qualification Opportunities Act (QCG) was launched in January 2019 and was designed to support employers and workers in addressing skill gaps caused by digitalisation and structural labour market shifts.³⁴ It uses the financial incentives element of the OECD framework, by providing subsidised training costs and wage compensation. Subsidies vary by employer size - up to 90% of costs for SMEs with fewer than 10 employees, 75% for medium firms, and 50% for large employers - with a focus on low-qualified workers and those in at-risk sectors. Additional subsidies are offered when 20% or more of a workforce participates in training and enabling group subsidies and shorter course durations.

The policy indicates that financial incentives have limited effect; as of 2022, only 1 in 1,000 workers received support annually, indicating potentially limited reach for a large industrial economy although positive trends include modest increases in participation from underrepresented groups.³⁵ Combining funding with guidance and employer engagement, as in the Netherlands, may have greater impact.

³² See: <u>Business Gateway</u>.

³³ See: nidirect: Skill Up.

³⁴ <u>Qualifizierungschancengesetz</u>: <u>Alle Vorteile auf einen Blick</u>

³⁵ Kruppe, Thomas; Lang, Julia (2023) <u>Subsidized continuing education of employees: Positive trend at a low level, In: IAB Forum</u>

Australia (Digital Skills Cadetship)

The Digital Skills Cadetship was trialled between 2022 and 2024 and sought to address critical shortages in Australia's digital workforce by combining formal training, paid work placements, and mentoring in the emerging tech fields such as cybersecurity, cloud computing, data analytics, and web development, focusing on underrepresented groups, to address projected vacancies in the ICT industry. It involves direct provision of training under the OECD framework, by blending vocational education and training (VET) and micro-credentials with four to six months of work placements, which include mentoring.

Targeted pilots allow testing and refinement before scaling, and adequate funding for evaluation is crucial for responsible expansion. An important lesson is the importance of designing for and adequately funding monitoring, evaluation and learning activities, alongside programme delivery.

United States (Inflation Reduction Act)

Enacted in 2022, the Inflation Reduction Act³⁶ commits approximately \$783 billion (£587 billion) over ten years toward clean energy, climate, and healthcare initiatives. The Act seeks to incentivise clean energy while incentivising companies to take on apprentices.

The Act combines financial incentives (via tax credits 37) with mandatory labour standards. It incentivises the clean energy transition while ensuring high-quality jobs through tax credits tied to labour and apprenticeship standards.

Similar to Germany's policy initiative, the Act is an example of the use of financial incentives to drive up employer investment in training. Tax credits appear to have driven up employer investment, although not necessarily in training, as the Act is also designed to encourage investment in clean energy projects, and employers unfamiliar with apprenticeships face administrative burdens. Lessons for the UK context involve the need to ensure training providers are also adequately funded and supported when designing new initiatives, and that consideration should be given to how to target employer incentives.

New Zealand (Qualifications and Credentials Framework)

The New Zealand Qualifications and Credentials Framework (NZQCF) is the national system for all quality-assured qualifications across levels 1–10, including microcredentials, certificates, diplomas, and degrees. The initiative blends financial incentives and information and guidance. Approved micro-credentials receive public funding from the Tertiary Education Commission (TEC), allowing tertiary providers to

³⁶ IRS Inflation (2024) Reduction Act Prevailing Wage and Apprenticeship Requirements

³⁷ National Governors Association (2023) <u>Engaging Employers in the Apprenticeship System through IRA Tax Incentives</u>

deliver accredited short courses. In 2020, the vocational system was further consolidated to support flexible delivery aligned with regional skill needs. New Zealand provides key learning on the design and delivery of micro-credentials, which have been consistently identified by employers in the UK as a desirable training format. The case study also demonstrates the need for substantial employer and learning engagement for this model to succeed, alongside adequate investment in evaluation activities. The recently formed Medr in Wales has adopted a similar model to New Zealand, and its Chief Executive has cited the New Zealand model as having informed its approach. The activities and future development of Medr may prove an insightful testing ground for this model and how it can be adapted to a UK context.³⁸

Finland (Continuous Learning Reform)

Finland's Continuous Learning Reform seeks to ensure working-age adults can continually upskill amid structural labour market changes. The reform provides a blend of financial incentives, information and guidance, and direct provision of training. At its core is the creation of the Service Centre for Continuous Learning and Employment (SECLE), which coordinates targeted outreach pilots and quality-assured micro-credentials and a national open badge system for adult basic skills. The approach points to the importance of a holistic and targeted approach to upskilling and reskilling at a national level, including innovative approaches such as the delivery of counselling in the workplace with the goal of increasing access to lifelong learning.

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³⁸ Welsh Government (2024) <u>Q&A with Simon Pirotte - Medr Chief Executive</u>

Key learning

This review identifies transferable elements for the UK context, focusing on governance, employer engagement, equity, sustainability, and system integration.

Across these case studies, success is most evident where policies:

- Are made and delivered in partnership, potentially implemented by an arms-length body, and supported by stable, multi-year funding,
- Embed employers as co-designers, supported by trusted intermediaries
- Integrate equity and inclusion into governance, funding, and delivery
- Offer modular, flexible provision aligned to sectoral and regional needs
- Simplify access for SMEs through consortia models and reduced bureaucracy
- Maintain strategic system integration to avoid duplication and policy drift.

Below is a summary of the lessons learned resulting from the nine case studies included in this review.

Governance and delivery models

	Independent and arms-length structures (e.g., Canada's	
	Future Skills Centre, Finland's SECLE) can strengthen	
	credibility, encourage innovation, and facilitate cross-sector	
	coordination.	
	Multi-partner governance models (Canada) leverage	
	diverse expertise and networks but require clear role	
	definitions to avoid accountability gaps.	
Key Learning	Countries with integrated skills agencies (Singapore)	
	benefit from centralised coordination of forecasting,	
	employer engagement, and learner support - reducing	
	duplication and increasing alignment with industry needs.	
	Policy disarticulation (Netherlands) and a lack of	
	coordination between uncoordinated overlapping initiatives	
	reduce effectiveness by creating obstacles to employers,	
	providers and learners.	
	In the UK, national equivalents would need autonomy from	
luandia dia na fandha	departmental cycles, and would benefit from long-term	
Implications for the	funding, and flexible reporting.	
UK context	Integration with existing local and national skills structures	
	(e.g., Skills England and LSIPS in England, Medr and	
-		

Regional Skills Partnerships in Wales) would be essential to
avoid fragmentation.

Employer engagement and incentives

Employer engageme	
	Employer-led or co-designed models (Ireland's Skillnet,
	Canada's FSC) ensure training is relevant, increase buy-in,
	and encourage sustained investment.
	Trusted intermediaries (Netherlands' Katapult) are vital in
Key Learning	mobilising SMEs, coordinating placements, and reducing
Rey Learning	administrative burdens.
	Financial incentives alone (Germany's QCG, US Inflation
	Reduction Act) may have limited impact on outcomes
	unless paired with wraparound support such as skills
	diagnostics, guidance, and sectoral networks.
	Employer incentives should be targeted by size, sector,
	and skills priority, with brokerage support for SMEs.
	Currently, the apprenticeship levy poses challenges in the
Implications for the	devolved nations as it is not linked to skills policy. Reform
•	of the apprenticeship levy could introduce greater
UK context	flexibility, mirroring Ireland's NTF, allowing investment in
	non-apprenticeship upskilling and reskilling. Reforms
	would need to allow flexibility for devolved governments
	to shape and implement them effectively.

Inclusion and equity

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	Embedding equity into governance and funding criteria
	(Canada's 50/30 Challenge) ensures participation from
	underrepresented groups.
	Targeted outreach and tailored provision (Australia's Digital
Key Learning	Skills Cadetship, New Zealand's micro-credentials for
	diverse learners) expand reach to groups who are less
	likely to access training.
	Workplace-based counselling (Finland) can engage low-
	skilled workers who may not access traditional provision.
	Targeting of policy initiatives should be informed by insight
	on underrepresented groups in the labour market and
	groups at heightened risk of being affected by future
Implications for the	economic transitions.
Implications for the	Policy initiatives should include clear diversity and inclusion
UK context	metrics and robust monitoring systems.
	Workplace-based guidance could be piloted to engage
	underrepresented occupational groups with historically
	low participation in training.

Programme design: accessibility and flexibility

- regramme design	accessibility and itexibility
	Short, modular, and stackable learning (Singapore's SkillsFuture, New Zealand's NZQCF, SkillNet's Offshore Wind Academy) enables rapid response to emerging sectoral needs.
	Piloting approaches (Canada, Australia, New Zealand) allow for test and learn approaches, with the potential for refining models before national rollout.
Key Learning	Strategic co-investment models (Ireland) encourage employer ownership and networked provision.
	Centralised digital infrastructure (Canada's Job Bank, Singapore's data dashboards, Netherlands government website) improves transparency, access, and system oversight.
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	Complex application processes (Netherlands' SLIM) deter
	SMEs without learning and development capacity.
	Consortia-based delivery (Netherlands) reduces the
	burden on employers and improves programme relevance.
	In England, the Lifelong Learning Entitlement could
	integrate employer-endorsed micro-credentials with clear progression pathways.
	Time-limited pilots and embedded programmes alike should include built-in monitoring and evaluation.
Implications for the	Each of the four nations of the UK could consolidate skills
UK context	information, guidance, and funding opportunities into single
	national skills portals, integrating data from providers,
	employers, and local partnerships.
	SME-targeted schemes should adopt plain-language
	guidance, light-touch bureaucracy, and consortia models
	to maximise reach.

Sustainability and long-term impact

	Short-term or one-off funding (Netherlands' SLIM) often
	fails to generate or embed organisational learning culture.
Key Learning	Long-term commitments (Canada's multi-year funding,
	Ireland's enduring employer networks) support continuity
	and systemic change.
	UK skills policy should commit to multi-year funding cycles
	for policy initiatives, enabling them to plan and invest in
Implications for the	sustained workforce development. For devolved
UK context	governments and authorities, this would require the UK
	Treasury to provide advanced sight of budgets, to enable
	multi-year planning of funding allocations.

Appendix A - Canada, Future Skills Centre

Case study overview

The Future Skills Centre (FSC) was established by the Government of Canada in February 2019 in response to the evolving demands of the labour market, driven by technological advancements, demographic shifts, and global economic changes. FSC is an independent innovation and applied research centre which aims to identify emerging skills, testing innovative approaches for skills development and training, focusing on what works and supporting underrepresented groups.

Acronym	Definition
FSC	Future Skills Centre
LTMAs	Labour Market Transfer Agreements
WDAs	Workforce Development Agreements
ESDC	Economic and Social Development
	Canada
El	Employment Insurance
CPMT	Commission des partenaires du
	marché du travail
UII	Upskilling for Industry Initiative
ISED	Innovation, Science and Economic
	Development Canada
TMU	Toronto Metropolitan University

Background

Canada has seen larger labour and skills shortages across regions, sectors and occupations since the COVID-19 pandemic

Since the COVID-19 pandemic, Canada's labour market has experienced strong employment growth. However, when paired with an ageing population and changing worker preferences, this growth has resulted in labour and skills shortages across sectors, regions, and occupations.

Approximately 80% of major employers in Canada report difficulties in finding skilled workers³⁹ with different sectors being affected over time. Between 2018 and 2021, skills shortages in Canada were mostly felt in knowledge-based services, whereas the construction sector is the worst affected at present.⁴⁰ This mirrors current skills

³⁹ The Business Council Canada (2022), <u>Canada's immigration Advantage: A survey of major employers.</u> This is from a survey conducted by the Business Council of Canada. Approximately 170 member companies of the Business Council of Canada were invited to take part in the survey. A total of 80 companies submitted responses via an online questionnaire.

⁴⁰ Future Skills Centre (2024) <u>Skills and Productivity: Which Skills Shortages Are Impacting Canadian Productivity?</u>

shortages in the UK: there are 35,000 job vacancies in the construction sector and half of those cannot be filled due to a lack of required skills, which is the highest rate of any sector.^{41,42}

These skills shortages have had substantial impacts on Canada's economic performance. Research conducted by FSC indicates that, had such shortages not existed since 2018, Canada's productivity growth could have averaged 0.3% annually instead of 0.1%. This could have potentially increased the national GDP by up to \$26 billion (approximately £14 billion) between 2018 and 2024⁴³. Likewise, skills shortages in the UK are also set to affect business growth, with one third of employers saying they will lead to reduced productivity (33%) and almost one third expecting to see reduced growth (30%).⁴⁴

Canadian employers expect digitalisation to affect their operations, yet AI adoption remains low

A forecast of labour market trends between 2025 and 2030 conducted by the World Economic Forum found that 97% of companies in Canada expect AI and information processing technologies to transform their operations. Robotics and autonomous systems, along with energy generation and storage technologies, are also expected to affect the business landscape.⁴⁵

Despite this, Canada lags globally in AI adoption, with less than 4% of firms indicating that they use AI in their business operations in 2023⁴⁶. In comparison, 9% of firms had adopted AI in 2023 in the UK⁴⁷. The main barrier to AI adoption identified by Canadian employers is finding employees with AI expertise whereas 47% of employees interviewed say they have not received enough training on new technologies in the workplace.⁴⁸

The transition to net-zero is also likely to generate skills shortages which will be unevenly distributed across Canada

Canada's transition to a net-zero economy is expected to significantly reshape its labour market, particularly through the growth of the clean energy sector, which employed 430,500 people in 2020 and is projected to grow by nearly 50% to 639,200 by 2030.⁴⁹ However, the impact of this transition will be uneven across industries and

⁴¹ HM Treasury (2025) <u>Government unleashes next generation of construction workers to build 1.5m</u> homes

⁴² Future Skills Centre (2024) <u>Skills and Productivity: Which Skills Shortages Are Impacting Canadian Productivity?</u>

⁴³ Ibid

⁴⁴ The Open University (2025) <u>Business Barometer</u>

⁴⁵ World Economic Forum (2015) <u>The Future of Jobs Report</u>

⁴⁶ Future Skills Centre (2024) <u>AI and the Shifting Landscape of Future Skills and the Future of Work</u>

⁴⁷ Office for National Statistics (2025) <u>Management practices and the adoption of technology and artificial intelligence in UK firms: 2023</u>

⁴⁸ Future Skills Centre (2024) AI and the Shifting Landscape of Future Skills and the Future of Work

⁴⁹ Clean Energy Canada (2021) The New Reality

regions. Carbon-intensive sectors such as oil and gas are likely to face substantial challenges, especially in provinces like Alberta, Saskatchewan, and Atlantic Canada, as well as in Northern Canada, where resource extraction activities are central to local economies. This mirrors trends in the UK with regions in Scotland, such as Aberdeen, experiencing a greater need for reskilling oil and gas workers to transition to jobs in clean energy.⁵⁰

This shift translates into changing skills requirements as the demand for green skills is expanding across occupations and economic sectors throughout the economy. This is a widespread phenomenon, with roles requiring green skills ranging from administrative officers to civil and electrical engineers, to corporate sales and business managers.⁵¹

There are also shortfalls in essential skills required by employers in Canada

Foundational skills such as communication, teamwork, critical thinking, creativity, problem-solving, and social and emotional skills will be required in occupations across all sectors of the economy⁵². Non-technical skills are deemed as important as technical skills in the net-zero transition, for example⁵³. Research conducted by the National Foundation for Educational Research has found this is also the case in the UK, with the same essential employment skills expected to be in demand by 2035.⁵⁴

Yet, Canada lags behind other countries in employer investment in training ⁵⁵ Canadian firms invest less in employer-sponsored training than their global peers. This is both the case in terms of the incidence and number of hours of employer sponsored training ⁵⁶. Small and medium-sized enterprises (SMEs) are significantly less likely than larger employers to invest in employee training and they amount for most of Canada's employment. Research conducted on FSC's portfolio of projects indicates that ⁵⁷ this underinvestment is the result of:

- A lack time and resources to organise and execute on-the-job training
- High up-front training costs which often render returns on investment low or negative

⁵⁰ Scottish Government (N/A) Oil and Gas

⁵¹ Future Skills Centre (2024) <u>Sustainable Jobs for Economic Growth</u>

⁵² Future Skills Council (2020) <u>Canada - A Learning Nation</u>

⁵³ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

⁵⁴ The six employment skills identified by the National Foundation for Education Research are: communication, collaboration, problem-solving, organising, planning & prioritising work, creative thinking and information literacy. For further information, please see: <u>The Skills Imperative 2035</u>: An analysis of the demand for skills in the labour market in 2035 - NFER

⁵⁵ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

⁵⁶ Future Skills Centre (2023) Employer-sponsored skills training

⁵⁷ Office of the Chief Economist (2025) <u>Canada's State of Trade 2025</u>: <u>Small and medium enterprises</u> <u>taking on the export challenge</u>

• The fact that effective training, notably for emerging skills, requires considerable effort and time to liaise with education and training providers.

FSC senior stakeholders interviewed as part of this research also indicated that SMEs are less likely to have capacity to identify their own training needs – in addition to having less funding available to invest in upskilling or reskilling.

Access to workplace training is also uneven, with higher skilled employees and those in full-time permanent roles being more likely to receive training than those with lower levels of education and more precarious working conditions.⁵⁸ This is compounded by disparities between sectors, with employers in utilities, finance and insurance, and other knowledge-based, technology-rich industries providing training at above average rates, while firms in retail, forestry, and oil and gas extraction providing below average levels of training.⁵⁹

Skills and training policy context

Upskilling and retraining policy initiatives are mostly funded by the Canadian federal government through Labour Market Transfer Agreements (LMTAs). ⁶⁰ LTMAs are a core programme within Economic and Social Development Canada's (ESDC) wider skills, learning and labour policies ⁶¹, alongside Future Skills, under which FSC was created. ESDC is the government department responsible for welfare, work, education, and training.

LMTAs are bilateral agreements between the Government of Canada and provinces and territories which include Labour Market Development Agreements (LMDAs) and Workforce Development Agreements (WDAs). Both aim to provide the necessary training, upskilling, employment support, career counselling, and job search assistance at a local level. LMDAs focus on providing people who have recently lost their job with skills development and work experience to prepare for, enter and maintain employment. LMDAs are funded by the Employment Insurance (EI) contributions of employers and workers. WDAs programming, on the other hand, focuses on supporting those furthest away from the labour market⁶², including those who are unemployed or underemployed and specific marginalised groups, such as:

- Disabled people
- Indigenous peoples

⁵⁸ Future Skills Centre (2023) <u>Effective Employer Engagement in Skills Development: From Rhetoric to Solutions</u>

⁵⁹ Future Skills Centre (2023) Employer-sponsored skills training

⁶⁰ Employment and Social Development Canada (N/A) Labour Market Agreements

⁶¹ Employment and Social Development Canada (N/A) Programs and policy development

⁶² Employment and Social Development Canada (N/A) <u>Backgrounder: Labour Market Transfer</u> <u>Agreements</u>

- Young people
- Visible minorities
- Newcomers to Canada
- Women

The Government of Canada allocates approximately \$3 billion (£1.6 billion) annually ⁶³ to provinces and territories—over \$2 billion (£1 billion) via LMDAs and the remainder via WDAs. To ensure that local level training and employment programmes are fit for purpose, provinces and territories consult annually with local labour market stakeholders to inform their design and delivery.

The Government of Canada also offers information for both individuals and employers on upskilling and retraining on its website. The <u>Job Bank page</u> compiles resources for employers, including a dedicated page consolidating information on the types of training employers can provide employees with, learning concepts and how to conduct training needs checklist. Another initiative focused on supporting individuals understand foundational skills needed and how to develop them is <u>Skills for Success</u>. A policy initiative led by Employment and Social Development Canada (ESDC), Skills for Success lists nine foundational skills (adaptability, collaboration, communication, creativity and innovation, digital, numeracy, problem solving, reading and writing), what they mean, why they are important, how to assess them and a list of tools to develop them.

Upskilling and retraining policies

There are few Canadian policies aimed at directly incentivising or promoting employer-sponsored training.⁶⁴ The key initiatives are:

Québec's One Percent Training Law

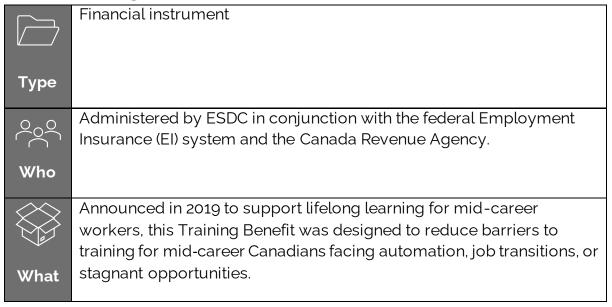
	Regulatory instrument
Туре	
	Monitored and enforced by the <u>Commission des partenaires du</u>
	marché du travail (CPMT). CPMT is an advisory and governance body
' '	in Québec's labour market system, which plays a central role in
Who	coordinating efforts among employers, unions, government, and
	education/training institutions to align workforce development with

⁶³ Employment and Social Development Canada (N/A) Labour Market Agreements

⁶⁴ Future Skills Centre (2023) <u>Effective Employer Engagement in Skills Development: From Rhetoric to Solutions</u>

	labour market needs. Revenu-Québec, the provincial tax administration agency for the Government of Québec, audits
	compliance.
What	A statutory requirement that Québec employers whose annual payroll exceeds \$2 million (£1 million) must invest one percent of their payroll in workforce training each year, which came into force in 1996. 65 Funding allocated to training should be invested in provincially recognised institutions, otherwise employers should contribute the difference to the provincial job training fund.
	Employers must plan and document eligible training activities and declare expenditures to Revenu-Québec. Unspent obligations go into the Fonds de développement et de reconnaissance des
How	compétences (managed by CPMT), which reallocates funding via grants and subsidised collective training projects. Stakeholder collaboration ensures alignment with labour market needs. ⁶⁶ The law appears to have spurred a higher quantity and quality of training sponsored by employers in Québec. ⁶⁷

Canada Training Benefit



⁶⁵ Legis Quebec (2025) Act to promote workforce skills development and recognition

⁶⁶ Revenu Quebec (N/A) <u>Cotisation au Fonds de développement et de reconnaissance des compétences de la main-d'œuvre</u>

⁶⁷ Future Skills Centre (2023) <u>Effective Employer Engagement in Skills Development: From Rhetoric to Solutions</u>



How

Eligible workers aged 25–64 can accrue this refundable tax credit (\$250 - £135 - per year, up to a \$5,000 lifetime maximum ~ £2,712) to cover up to half the cost of their selected training programme in an eligible educational institution. Eligible training includes that provided by a university, college or other educational institution in Canada providing courses at a post-secondary level or an institution in Canada providing occupational skills courses, which is certified by the minister of employment and social development. The Training Credit can be accumulated through tax filings and requires no pre-saving or separate account. However, it does not cover upfront training costs or any other secondary costs, such as childcare or transportation. As individuals using the credit must pay for the training and then claim a refund when completing their income tax and benefit return, this is likely to act as a barrier to lower-paid workers, who are already less likely to be taking part in upskilling or retraining^{70,71}.

Upskilling for Industry Initiative (UII)



Capacity building and direct provision of training.

Type



Led by Innovation, Science and Economic Development Canada (ISED), a federal department of the Government of Canada. ISED selected a national delivery partner, Palette Skills Inc., to coordinate implementation. Partners include employers, post-secondary institutions and training providers.



What

A \$250 million (£135 million), three-year federal programme launched in 2022 to deliver short-cycle upskilling programmes (4 to 16 weeks) in high-growth sectors, including digital technology, cybersecurity, agriculture technology, advanced manufacturing, clean technology, and biomanufacturing.⁷² UII targets approximately 15,000 Canadians, including those from under-represented groups.

⁶⁸ Government of Canada (N/A) Canada training credit

⁶⁹ Government of Canada (N/A) <u>List of certified institutions</u>

⁷⁰ Public Policy Forum (2021) <u>Federal program aims to support lifelong learning, but analysts call for changes</u>

⁷¹ Future Skills Centre (2023) Employer-sponsored skills training

⁷² Government of Canada (2023) <u>Canada steps up to meet the skilled labour needs of high-growth sectors</u>



Palette Skills is the Lead Recipient of UII and responsible for managing a pan-Canadian network of partners in addition to delivery partners under a contribution agreement. Employers identify sectoral skills needs and collaborate with training providers to co-design and deliver demand-driven curricula. The initiative funds programme design, partnerships, participant recruitment, training delivery, and integration supports and aims to foster match funding over time.⁷³

Policy deep dive - Future Skills Centre (FSC)

At a glance

FSC is a good example of a policy initiative promoting upskilling and retraining that is well articulated with the wider policy ecosystem. It is independent from government, focused on developing innovative skills development solutions and able to use learning drawn from delivery to influence policymaking.

Туре	Capacity building and financial incentives.
Who	Future Skills Centre (FSC) was established in 2019 via a single Contribution Agreement between Employment and Social Development (ESDC – a federal government agency - and the Toronto Metropolitan University (then Ryerson University). A consortium was created between the Toronto Metropolitan University, the Conference Board of Canada, and Blueprint-ADE.
What	FSC is a pan-Canadian initiative focused on funding place-based skills development projects, across five focus areas: pathways to jobs, tech and automation, SMEs adaptability, inclusive economy, and sustainable jobs. The initiative places a particular focus on supporting underrepresented and disadvantaged groups through skills development projects.
How	The Centre has set up diverse themes or streams (19 different funding rounds) through which organisations can apply for funding to test innovative approaches to skills development. As of December 31, 2022, over \$236 million (£128 million) had been distributed to a total of 230 projects. ⁷⁴ There is no recent information on expenditure available.

⁷³ Government of Canada (N/A) <u>Applicant guide: Upskilling for Industry Initiative</u>

⁷⁴ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

Policy context

Despite being an independent innovation and applied research centre, FSC is one of the pillars of the <u>Future Skills programme</u> led by the Ministry of Employment and Social Development (ESCD). The programme aims to increase access to training that meets evolving needs, with a focus on underrepresented groups.

Another key component of the Future Skills programme is the Future Skills Council. In 2019, the Future Skills Council, an advisory board, brought together 15 leaders from public, private, labour, Indigenous and not-for-profit organisations to identify common priorities from across sectors and provide advice on emerging skills and workforce trends. The Council published a report, <u>Canada - A Learning Nation</u>, in November 2020, which outlines five priorities for building a learning nation and areas for action:

- Canadians are supported in making informed learning and training decisions through access to relevant, reliable, and timely labour market information and tools.
- Lifelong learning is promoted by ensuring equal opportunities and removing systemic barriers to participation across all stages of life.
- Skills development for Indigenous Peoples is prioritised through programmes that support self-determination and reconciliation for First Nation, Inuit, and Métis communities.
- Innovative and diverse approaches to skills development and validation are encouraged to meet the changing needs of learners and the labour market.
- A sustainable future is supported by building a skilled workforce ready to embrace new technologies and business models while safeguarding community well-being.

During its mandate, Future Skills Council worked alongside FSC to build the necessary relationships⁷⁵ to advance these priorities, as detailed below.

FSC objectives and governance

As an independent innovation and applied research centre, FSC seeks to combine pan-Canadian strategic partnership building, skills development pilot design, and strong evidence generation to assess and support scalability. It seeks to develop:

•	Strategic partnerships: Establish and grow a pan-Canadian, cross-sectoral network
	to leverage expertise, coordinate investments, build capacity, and identify shared
	priorities across the skills development ecosystem.

⁷⁵ Ibid			

- Labour market research: Conduct forward-looking research to build a robust evidence base on in-demand skills, enabling responsive training strategies and improving outcomes for diverse job seekers.
- **Evaluations of innovation:** Prototype, test, and rigorously evaluate a portfolio of innovative skills development models to generate actionable evidence on effective practices and scalable solutions.
- **Knowledge mobilisation:** Disseminate research findings and best practices broadly to inform policy, strengthen community capacity, support future investments, and catalyse systemic change.

Similarly to FSC, Skills England plays an important role in mapping skills needs, supporting access to skills and mobilising partners, including employers, to co-create skills development solutions in England. In Northern Ireland, the Skills Council fulfils a similar function in an advisory capacity to the Department for the Economy. Key differences between Skills England and the FSC include:

- Autonomy: FSC has greater independence from government than Skills England an arms-length body under the Department for Work and Pensions⁷⁶
- Research and evaluation: as an applied research centre, FSC has a stronger knowledge production and mobilisation capacity than Skills England, designed to inform and influence policymaking
- Innovation: FSC was described by a senior FSC interviewee as resembling a "venture capital model" insofar as it invests and focuses primarily on testing innovations, with higher levels of risk than initiatives supported by Skills England.

The design and governance of the Centre have been key in meeting its goals. As a consortium model, FSC's three partners have distinctive responsibilities:⁷⁷

- Toronto Metropolitan University (TMU) is responsible for providing the FSC with administrative services (finance, IT, human resources) and is the signatory to the Contribution Agreement with ESDC. The project team at TMU includes the Diversity Institute and Magnet. The Institute is responsible for developing new approaches to understanding future skills and meeting employer needs with a focus on removing barriers. Magnet is a social innovation platform addressing the unemployment and underemployment of Canadians.
- Blueprint-ADE draws from their extensive experience in programme design, evaluation, policy analysis, and advanced data analytics to lead the evidence generation strategy and evaluation of Future Skills Centre's innovation projects.

⁷⁶ UK Government (N/A) About us – Skills England

⁷⁷ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

Blueprint collaborates with policymakers and practitioners to generate rigorous evidence to understand how they can learn, improve, and maximise their impact.

• The Conference Board of Canada leads the Centre's knowledge dissemination and mobilisation activities and contribute to the Centre's research program.

Partnership working

FSC has established a pan-Canadian network of diverse stakeholders, including provincial and territorial governments, Indigenous organisations, industry, educational institutions, and non-profit groups, to support a national, systemic approach to skills development. This network of both partners and stakeholders is a pre-requirement of the Contribution Agreement between ESDC and the Centre. Strategic partnerships aim to leverage partners' expertise, coordinate investments, build capacity, and identify shared priorities across the skills development ecosystem

FSC has actively engaged stakeholders across Canada's skills development ecosystem through a range of initiatives including:

- The Regional Sounding Tour (2019–2020), which convened over 1,000 participants to identify regional priorities and strategies for supporting vulnerable populations
- The Virtual Sounding Tour (2020–2021), which gathered insights from 344 participants on labour market challenges and pandemic-related shifts in programme priorities
- The Centre's Community of Practice (CoP), managed by Magnet, which promotes knowledge sharing and collaboration among stakeholders; as of December 2022, it included 1,577 registered collaborators, with consistent engagement from roughly one-third of members.

The 2018-2023 Evaluation of FSC found that the Centre had successfully built relationships with provincial and territorial governments and that the initial consultation had prevented replication and duplication. They also argued that the federal government on its own may not have been able to achieve the same outcome due to potential concern about jurisdiction.⁷⁸

FSC's senior management and knowledge mobilisation stakeholders discussed having experienced challenges in managing the CoP, namely in bringing together and maintaining engagement across a wide range of actors and local characteristics. FSC has since pivoted towards influencing government both at both a federal and province/territory level. This new approach seeks to connect different levels of government by bringing policy stakeholders together into public webinars or in person events. These aim to disseminate and discuss research findings on future and present

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⁷⁸ Ibid

skills needs and on what's working well, less well and for whom within the skills and employment ecosystem. Findings from the evaluation report indicated that most respondents agreed that the Centre was promoting innovation and collaboration in the skills ecosystem beyond what is usually possible, at least to some extent.79

Structure and execution

The Centre has set up diverse themes or streams through which organisations can apply for funding to test innovative approaches to skills development. To date, FSC has launched five different calls for proposals 80:

- February 2019: Inaugural call for six innovation projects and broader proposals for mid-career support
- April 2019: Targeted call focusing on mid-career workers displaced by the changing labour market
- August 2019: Comprehensive national call investing approximately \$37 million over two years to test and evaluate innovative approaches
- May 2020: "Shock-proofing the Future of Work" call addressing pandemic-related workforce disruptions
- October 2024: The Skills Horizon initiative, comprising two concurrent calls (Skills Solutions and Skills Research) totalling \$9 million.

As of December 31, 2022, over \$236 million (£128 million) had been distributed to a total of 230 projects.81 FSC has sought to select projects and distribute funding among various sectors in the skills development ecosystem, with the highest proportion going to universities (16.8%) and non-profit organisations (14.9%). The interview with senior FSC stakeholders indicates that there was an initial reliance on the existing network across the consortium and that, as a result, the first calls for proposals mostly attracted applications from universities and civil society.

Despite this, FSC funded projects can be found in every province and territory, alongside 90 pan-Canadian initiatives, which points to strong intentionality in ensuring the Centre is active at a pan-Canadian level. Employers and other relevant partners, including training providers, are engaged at a project level. Examples of upskilling and retraining projects include:

A workplace integrated learning project in the bioscience sector led by the Canadian Alliance for Skills and Training in Life Sciences. The project focused on

⁸⁰ Future Skills Centre (N/A) Calls for proposals

⁸¹ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

integrating bioscience education in K–12 and postsecondary institutions, retraining unemployed individuals and offering advanced training for current employees.⁸²

 A tech upskilling project led by NPower Canada supporting unemployed and underemployed individuals facing labour market disadvantages due to race, gender, immigration status or disability with basic tech skills and job placement opportunities.⁸³

The Contribution Agreement with FSC stipulates that at least 50% of the funding must support underrepresented groups. As of 2022, 73% of FSC projects targeted these groups.⁸⁴

Reach and effectiveness

FSC's 2022 Impact Report indicates that the Centre had at that point:85

- Developed over 300 partnerships with ecosystem experts to deliver innovative perspectives and thought leadership on the future of skills
- Created 13 new digital platforms for skills development and career navigation tools
- Supported 25,000 individuals with skills training and/or employment opportunities
- Reached a network of over 2000 practitioners, influencers and decision-makers.

There is limited insight on outcomes, with the 2018-2023 FSC Evaluation Report⁸⁶ finding that:

- The COVID-19 pandemic affected the early years of the FSC implementation and resulted in delays to achieving outcomes.
- FSC is creating foundational conditions for innovation in the skills development ecosystem, though the extent of experimentation with new approaches is not yet clear and may require more time for meaningful assessment.
- Early evidence suggests that FSC has contributed to knowledge generation for the skills ecosystem; however, the impact of this knowledge is yet to be fully evaluated.
- While various knowledge mobilisation activities have been undertaken to inform policy and programme development, the direct impact of these efforts on policy change is not yet evident.

⁸² Future Skills Centre (2025) <u>A New Model for Workplace-Integrated Learning</u>

⁸³ Future Skills Centre (2024) <u>Upskilling Canadians for In-Demand Tech Careers</u>

⁸⁴ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

⁸⁵ Future Skills Centre (2022) Impact Report 2022

⁸⁶ Employment and Social Development Canada (2023) Evaluation of the Future Skills program

• Most funded projects (73%) are focused on supporting underrepresented groups, but it is too early to determine measurable outcomes for these populations.

Lessons learned

The section below outlines key learning on what has worked well and less well in the set-up of FSC and the delivery of its portfolio of projects.

FSC's third model design

The third-party consortium model involving Toronto Metropolitan University, BluePrint-ADE and the Conference Board of Canada has been widely credited for the early success of the FSC in building strong and wide networks. Leveraging each partner's unique networks, expertise, and infrastructure allowed for a rapid launch and scaling of activities across the skills ecosystem. Individuals who took part in the 2018-2023 Evaluation of FSC consistently viewed the governance model as functioning largely as intended, enabling the Centre to act with agility, credibility, and strong connections to both policy and practice across sectors and regions.⁸⁷

Key strengths of the third-party delivery model include:

- Independence from government, which was seen as critical for building pan-Canadian buy-in and encouraging provincial and territorial participation. The importance of the arms-length model of FSC was reinforced in an interview with FSC Stakeholders
- Strong linkages across sectors, enabling the Centre to remain attuned to developments in industry, education, and community while maintaining influence on government policy
- Enhanced capacity for innovation, offering greater flexibility to test new ideas and scale promising approaches
- **Effective knowledge mobilisation**, with the Centre nurturing networks and disseminating insights in ways that extend beyond traditional government channels.

However, several challenges were identified in the FSC evaluation in relation to governance and coordination:

- Unclear roles and responsibilities, particularly regarding the role of ESDC following the conclusion of the Future Skills Council mandate, with a noted lack of clarity among stakeholders about ESDC's continuing function
- Limited coordination and information sharing between ESDC and the Centre, with interactions largely confined to formal reporting under the Contribution Agreement

⁸⁷ Ibid

- Complex governance structure, stemming from multiple contribution agreements (e.g., TMU holds the agreement with the Future Skills Centre, while consortium partners have agreements with TMU), creating potential for accountability tensions; this was partially mitigated through the establishment of a leadership table with equal representation from each partner
- Perceived regional concentration, as all consortium partners are based in Ontario, which some interviewees felt places additional pressure on maintaining a truly pan-Canadian approach.

FSC Senior Stakeholders reflected on the innovative nature of FSC's work and of how investing in this model requires sufficient appetite for risk and trust on behalf of Government. This translated into more flexible reporting requirements – in acknowledgement that outcomes may only materialise and be measurable a few years following mobilisation – and sufficiently long funding agreements. The latter was seen as key in ensuring there is operational continuity: a "runway" for skills development projects. FSC originally received a five-year agreement, followed by one-year extensions.

Employer engagement

Based on its experience funding skills development projects, 88 FSC has identified key lessons on what works in engaging employers:

- Early and active employer involvement is critical. Employers must be engaged as full partners from project inception through to implementation. Projects that involve employers only peripherally often struggle to recruit enough firms or meet their objectives. Early engagement ensures employers have a vested interest in the solutions being developed, which supports overall success.
- Ongoing support through organisations that act as trusted intermediaries helps overcome capacity constraints, particularly for SMEs. These intermediaries play a crucial role by:
 - o Recruiting employers
 - o Coordinating work placements and on-the-job training
 - o Providing technical trainers and support programs

Building internal firm capacity for onboarding new training models and data collection is also important for sustainability.

Balancing regional and firm-specific needs is essential. Effective engagement involves:

⁸⁸ Future Skills Centre (2023) <u>Effective Employer Engagement in Skills Development: From Rhetoric to Solutions</u>

- Bringing together diverse regional employers to pool risks and identify shared skills gaps
- Tailoring short-duration training to fit firm size, growth stage, and specific needs
- o Integrating both technical and non-technical skills training to increase impact and address concerns about workforce investment.

A senior stakeholder within FSC also shared that models that prioritise employers leading on skills assessment and development initiatives as active partners, rather than just being meaningfully engaged, are more likely to support employers in taking ownership of their own investment in training in the medium to long term.

Supporting underrepresented groups

The Centre has implemented several effective strategies to ensure its programming supports underrepresented groups. A targeted project evaluation process assesses how proposals address the needs of underrepresented populations, and a dedicated funding stream further prioritises projects focused on these communities. Equity and inclusion are embedded across governance and operations, with the Centre's advisory board reflecting diverse representation and upholding the same inclusion standards applied to funded projects. Additional efforts include:

- The 50/30 Challenge, requiring 50% female and 30% racialised leadership in funded projects
- Programmes like Facilitating Access to Skilled Talent for newcomers, delivered by the Immigrant Employment Council of British Columbia
- **CoPs** that connect organisations and individuals working with equity-deserving groups, fostering knowledge exchange and collaboration.

Together, these approaches have strengthened the Centre's commitment to inclusive skills development and helped ensure that equity considerations are integrated at every level of program design and delivery.

Transferability to the UK

Key reflections on the applicability and transferability of this learning to a UK context include:

Comparable elements or policies

There are parallels between Canada's wider policy initiatives and existing mechanisms in the UK, including the apprenticeship levy – Québec's One Percent Training Law, the Lifelong Learning Entitlement in England – Canada's Training Benefit – and Skills Bootcamps – Upskilling for Industry Initiative. However, in Northern Ireland, Scotland, and Wales, the link between funds raised by the

- apprenticeship levy and skills is not present. Funds raised by the Levy are collected and then distributed back to the devolved governments as part of the block grant, rather than being ringfenced for skills and training.
- There are parallels between FSC and national skills bodies in each of the four UK nations. Skills England is perhaps the closest comparator to the FSC, although there are important differences regarding mandate, funding allocation and autonomy as an arms-length body, rather than a completely independent agency. In Northern Ireland, the Skills Council in Northern Ireland is also a similar body, although in a more advisory capacity. It consists of representatives from government, unions, employers, and education to provide advice to the Minister for the Economy. Comparison may also be drawn to Skills Development Scotland, which, unlike the Northern Irish Skills Council, has greater independence and more of a direct role in skills planning, and Medr in Wales, which in contrast to FSC has a direct funding and regulatory role.

Takeaways and considerations

- Research consistently shows that employers in the UK would welcome centralised online information and guidance platforms, such as Canada's Job Bank website which consolidates both training opportunities, but also skills assessment tools. This would need to be implemented at a devolved national level, due to differences in approaches to qualifications across the constituent nations of the UK.
- Investing in models similar to the FSC requires sufficient appetite for risk and trust on behalf of the UK and devolved national governments. This translates into more flexible reporting requirements – currently at odds with monitoring and evaluation requirements set out by the Treasury – and sufficiently long funding agreements.
- If replicating the FSC model, setting out clear roles and responsibilities is essential to avoid the complex governance structure identified in this review.
- The scale of Canada's geography led to challenges in sustaining communities of practiceUK's smaller geography could be an advantage for network cohesion. However, there would need to be an emphasis on ensuring there is involvement from employers outside of those who are already undertaking high levels of training or who are already making use of public funding for training.

Appendix B - Ireland, SkillNet

Case study overview

SkillNet is the national talent development agency of Ireland. It was established in 1999 and is funded from the National Training Fund (NTF) through the Department of Further and Higher Education, Research, Innovation and Science. It also receives contributions from businesses participating in Skillnet Ireland programmes and is ultimately employer-driven. SkillNet has a three-pronged approach of:

- Supporting Skillnet Business Networks, which bring together mostly small and medium enterprises (SMEs) to address skill gaps through the development of training plans
- 2. Delivering upskilling initiatives, focused on particular sectors (e.g. SkillNet Offshore Wind Academy)
- 3. Delivering Skills Connect, which offers free training programmes and enterprise-led job placements to unemployed individuals.

Acronym	Definition
NTF	National Training Fund
EGFSN	Expert Group on Future Skills Needs
FET	Further Education and Training
HCI	Human Capital Initiative
IBEC	Irish Business and Employers
	Confederation

Background

Despite a high employment rate, employers in Ireland expect to see skills disruptions as a result of digital and net-zero transitions

Ireland's labour market is marked by strong employment growth and low unemployment, underpinned by a national goal to create 300,000 additional jobs by 2030.89 Compared to the EU, Ireland has a young population and high rates of skilled individuals migrating to the country, both of which have significantly contributed to the country's recent economic success.90

⁸⁹ Government of Ireland (2025) Programme for Government.

⁹⁰ SkillNet (2025) <u>Ireland's Talent Landscape 2025</u>: <u>Future Skills Challenges of Irish Business</u>. Survey conducted by Skillnet Ireland in 2025. The research was conducted by Ipsos Behaviour & Attitudes (B&A) through a random sample of 500 businesses, with the sample quota controlled by region, and size of the company to reflect the business demography as defined by the Central Statistics Office (CSO).

Over two-thirds of employers in Ireland view the development of green skills, in terms of upskilling in sustainability, as vital over the next two to three years, with large firms leading this shift due to regulatory pressures and market demands. Currently, 66% of businesses report needing green upskilling, up 12% from 2024. One in five are already struggling to find staff with the necessary green skills. Notably, a third (33%) of business leaders anticipate that over half their workforce will require green or climate-related support. The most cited challenges in achieving this transition are skills shortages and regulatory changes.

Digital capability is also under significant pressure: 79% of employers believe their staff will need some level of digital upskilling in the coming years to be able to perform their role, a 14% increase from 2024. Demand for advanced digital expertise is growing, especially in large employers, where up to a quarter of the workforce is expected to need digital or green upskilling. Skills shortages are most acute in technical and engineering roles, digital technologies, and regulatory expertise. Similarly, requirements in business intelligence, cloud computing, internet of things, and data analytics nearly doubled, reflecting the urgent need for targeted workforce development in support of the green and digital transitions.⁹²

Al is seen as an opportunity rather than a threat, although employer preparedness is limited

Just over half (52%) of employers in Ireland view artificial intelligence (AI) as an opportunity, while only 10% consider it a threat. Almost two fifths (37%) of businesses believe AI could help to expand their operations within the next two to three years. This optimism is particularly strong among SMEs with more than 50 employees, where 77% now see AI as a growth driver - up significantly from just 23% in 2024.

Despite this growing interest, 77% of employers do not yet include AI in their business strategy. However, momentum is building with nearly half (47%) planning to prioritise AI integration in their business strategies within the next one to two years.⁹³

Employers expect skills shortages to translate into recruitment challenges and are responding by investing in upskilling

Just over two fifths of employers in Ireland (43%) expect to face difficulties in recruiting staff with the necessary skillset to their firms, compared to a global average of 27%. 94 This is in light of substantial labour market shortages. For example, the estimated number of workers required to reach 2030 Housing for All and Climate Action Plan targets is 304,430, 46% higher than the current workforce. 95 This is comparable to the

92 Ibid

⁹¹ Ibid

⁹³ Ibid

⁹⁴ World Economic Forum (2025) The Future of Jobs Report 2025

⁹⁵ BUSI 2030 (2023) Analysis of the National Status Quo

substantial increase in the UK construction workforce required to meet housing and infrastructure demand.96

In line with previous years, employers in Ireland continue investing in upskilling: 76% of businesses upskilled their staff in the past 12 months, in-line with the 74% reported in 2024,⁹⁷ This is substantially higher than the 59% of employers investing in employee training in the UK in 2024.⁹⁸

However, there are key differences by employer size in the level of exposure to and preparedness for skills disruption

Only 26% of SMEs have a formal workforce development plan, compared to 83% of larger employers, which typically benefit from more structured resources. Just over two fifths of SMEs (42%) report difficulties recruiting staff with the right skills, particularly in technology, engineering, and digital roles. Time and cost remain key barriers to upskilling among SMEs.

Nonetheless, there is a growing awareness among SME leaders of the importance of workforce development: 42% of SMEs supported more than half of their employees to engage in upskilling over the past year. However, the urgency for green and climate-related skills is greater among larger employers, where 98% report a need for upskilling in this area, compared to 65% of SMEs.

Among large employers, 83% now have a workforce development strategy. A majority (74%) reported that their core skill needs had changed over the past two to three years, and 82% expect further shifts ahead. Their main barriers to upskilling include time commitments and limited awareness of available training options, indicating ongoing challenges despite more robust strategic frameworks.⁹⁹

Skills and training policy context

Ireland's key skills and training policy framework may no longer reflect current needs and priorities, with most nearing their lifespan. This includes the 10-year National Skills Strategy, 100 published in 2016 and Future Jobs Ireland 2019. 101 Each focus on:

National Skills Strategy: This places strong emphasis on expanding upskilling and reskilling opportunities for both unemployed and employed individuals. The Strategy sets out that education and training provision should be informed by future skills forecasting, enabling the system to adapt to changing workforce needs. In addition, one of the Strategy's objectives includes actions on upskilling being supported through employer engagement via SkillNet networks, which

⁹⁶ CITB (2024) Over 250,000 extra construction workers required by 2028 to meet demand

⁹⁷ SkillNet (2025) <u>Ireland's Talent Landscape 2025</u>; <u>Future Skills Challenges of Irish Business</u>

⁹⁸ Gov.uk (2025) Employer Skills Survey 2024

⁹⁹ Ihid

¹⁰⁰ Department of Education and Skills (2016) Ireland's National Skills Strategy 2025

¹⁰¹ Government of Ireland (2019) Future Jobs Ireland 2019

encourage companies to invest in staff training to meet their own skills gaps. In parallel, it details initiatives to improve guidance services and careers information for both adults and students. 102

Future Jobs Ireland: This places strong emphasis on upskilling and retraining as essential to preparing the workforce for digital, technological, and low-carbon transitions. The Strategy aims to double lifelong learning participation by 2025 from 9% in 2022 to 18% and supports this through actions such as expanding apprenticeships, delivering targeted training in emerging technologies, enhancing career guidance, and increasing employer engagement via Skillnet Ireland and Local Enterprise Offices. The strategy prioritises flexible, responsive training systems to help both workers and businesses adapt to a rapidly evolving economy. 103 Ireland's lifelong learning participation stood at 16% in 2024, nearing the 2025 target.104

The National Upskilling Roadmap 2030¹⁰⁵ complements the strategies set out above, although it exclusively focuses on upskilling for the built environment. It is the result of an EU-funded research project led by the Technological University of the Shannon in partnership with the Irish Green Building Council, the Construction Industry Federation and Laois Offaly Education and Training Board. In addition to quantifying expected labour market shortages to deliver sustainable housing and retrofit targets, it provides recommendations such as mandatory zero-emission building training, embedding circular economy and low-carbon modules in curricula, and scaling up flexible upskilling pathways responsive to digitalisation and decarbonisation needs.

Despite having a wider scope, the 2025 Climate Action Plan¹⁰⁶ and related Expert Group on Future Skills Needs reports explicitly emphasise the need for structural shifts to the skills landscape to deliver Ireland's net-zero transition. The Expert Group advises targeted upskilling in areas including energy-efficient retrofitting, heat-pump installation, solar and wind power, and modern construction skills, while urging enhanced collaboration across government education bodies to deliver training aligned with zero-carbon targets.¹⁰⁷

The Expert Group on Future Skills Needs (EGFSN)¹⁰⁸ is an independent, non-statutory body, which includes representatives from the business community, education and training providers, trade unions, and a small number of government Departments and agencies. The EGFSN has the task of advising the Government on future skills

43

¹⁰² Department of Education and Skills (2016) <u>Ireland's National Skills Strategy 2025</u>

¹⁰³ Government of Ireland (2019) Future Jobs Ireland 2019

¹⁰⁴ SOLAS (2025) <u>SOLAS Welcomes Increase in Lifelong Learning Participation Rate to 16%</u> ¹⁰⁵ Irish Green Building Council (2024) <u>National Upskilling Roadmap 2030</u>

¹⁰⁶ Department of Climate, Energy and the Environment (2025) Climate Action Plan 2025

¹⁰⁷ Department of Enterprise, Tourism and Employment (2021) Expert Group on Future Skills Needs report identifies Skills Needs to support delivery of Climate Action Plan over the coming decade

¹⁰⁸ Future Skills Ireland (n.d.)

requirements and associated labour market issues that impact on enterprise development and employment growth.

Upskilling and retraining policies

The Department of Further and Higher Education, Research, Innovation and Science compiles information on upskilling and retraining initiatives on a government website 109 aimed primarily at individuals, but also at employers. It lists:

- Free training for unemployed people through SkillNet's Skills Connect¹¹⁰
- Free and subsidised training for employees: the Back to Education initiative¹¹¹ providing part-time education programmes for young people and adults; free online courses with eCollege¹¹²; Skills to Advance¹¹³ (detailed below) and Skills for Work¹¹⁴ free courses aimed at supporting employees meet skill demands in the workplace
- Free and subsidised training for employees and unemployed people through Skills to Compete¹¹⁵ providing free reskilling and retraining courses
- Retrofitting and green skills training, including wind energy skills
- The post leaving certificate programme¹¹⁶ designed for young people who have completed their Leaving Certificate and adults returning to education and other degrees and higher education courses.

Training opportunities are compiled in full in the Further Education and Training (FET) Hub¹¹⁷. FET courses and programmes are provided through the Education and Training Board network throughout the country as well as through other local providers including online through SOLAS' eCollege. SOLAS¹¹⁸ was established in 2013 under the

¹⁰⁹ Department of Further and Higher Education, Research, Innovation and Science (2021) <u>Learn new skills or retrain</u>

¹¹⁰ Department of Further and Higher Education, Research, Innovation and Science (2020) <u>Free training</u> courses for unemployed people - Skills Connect

 $^{^{\}hbox{\tiny 111}}$ Department of Further and Higher Education, Research, Innovation and Science (2020) $\underline{\text{Back to}}$ $\underline{\text{Education Initiative}}$

¹¹² Department of Further and Higher Education, Research, Innovation and Science (2021) <u>Free online courses with eCollege</u>

¹¹³ SOLAS (n.d.) Skills to Advance

¹¹⁴ Department of Further and Higher Education, Research, Innovation and Science (2020) <u>Free training courses for employees - Skills for Work</u>

¹¹⁵ SOLAS (n.d.) Skills to Compete

¹¹⁶ Department of Further and Higher Education, Research, Innovation and Science (2019) <u>Post Leaving</u> <u>Certificate (PLC)</u>

¹¹⁷ Further Education & Training (n.d) About FET

¹¹⁸ SOLAS (n.d.) Who We Are

Further Education and Training Act as an agency of the Department of Further and Higher Education, Research, Innovation and Science.

Skills to Compete and Skills to Advance

	Direct provision of training.
Туре	
000	SOLAS administers both programmes which are aimed at unemployed and employed individuals.
Who	
What	Skills to Advance provides upskilling and reskilling opportunities to employees in jobs going through change, and to people employed in vulnerable sectors. Skills to Compete offers free reskilling and retraining courses to individuals who have lost their jobs or want to improve their skills.
How	Skills to Advance ¹¹⁹ is an ongoing national programme launched in 2019 designed to help employees, particularly in vulnerable sectors or those aged 50+ or in lower-skilled roles, upskill and progress within or between jobs. It offers highly subsidised accredited training (often up to 70% subsidy) including leadership, digital and green-skills courses, delivered flexibly via local Education and Training Boards with employer collaboration. Skills to Advance is funded by the NTF via SOLAS.
	Skills to Compete ¹²⁰ was launched in 2020 to support rapid reskilling and retraining for individuals impacted by COVID-19 or seeking to return to work. It combines three strands of FET provision: transversal employability skills, digital capability training, and targeted Level 4-6 courses aligned with regional labour market needs. These are delivered locally by Education and Training Boards with tailored guidance and support.

¹¹⁹ CEDEFOP (n.d.) <u>Skills To Advance</u>

¹²⁰ CEDEFOP (n.d.) Skills to Compete

Human Capital Initiative (HCI)

Туре	Direct provision of training.
Who	Managed by the Higher Education Authority on behalf of the Department of Further and Higher Education.
What	HCI offers free and subsidised graduate conversion courses at honours degree, master's degree and postgraduate diploma levels (levels 8 and 9 on the NFQ). These courses are in skills-focused programmes designed to meet priority skills needs. ¹²¹
How	HCI was launched in 2020 and received five years' worth of funding (€300 million or £260) by the NTF. There were over 2,900 HCI Pillar 1 places available for the 2023 to 2024 academic year. These courses are part-time and full-time, for a maximum of 18 months. They are open to all applicants who meet the eligibility criteria at the time the course starts.

Policy deep dive - SkillNet

At a glance

SkillNet is widely considered as best practice in driving up employer investment in training. It was selected due to the Ireland's comparability to the UK context and as an example of an employer-funded and driven agency, with autonomy from the Irish government.

	Capacity building, financial incentives and information and guidance.
Туре	
000	SkillNet functions as an arms-length body of the Irish government. It is co-funded by the NTF through the Department of Further and Higher
Who	

¹²¹ Higher Education Authority (n.d.) <u>Human Capital Inititative</u>

	Education, Research, Innovation and Science and employer contributions.
	SkillNet is the national workforce development agency of Ireland, established in 1999. The organisation works in collaboration with employers to address current and emerging skills needs, with the aim of equipping businesses across sectors with the capabilities required
What	to adapt and grow.
	SkillNet operates through a decentralised, employer-led model made up of 70 SkillNet Business Networks. In addition to this, it also funds
How	and delivers a wide range of upskilling and skills development opportunities for employers and individuals including sector specific upskilling initiatives, networking and mentoring support for employers and Skills Connect.

Policy context

Skillnet Ireland is articulated with key national strategies, although the existing policy ecosystem is complex, as described in the previous section. SkillNet is explicitly tasked with actions across a wide range of government strategies, including sectoral plans (e.g. Foodwise 2025, Building Innovation), technology-focused strategies (e.g. Technology Skills 2022, National Cyber Security Strategy), and broader frameworks like Ireland's Competitiveness Challenge 2020. The National Skills Strategy highlights Skillnet as a key model for enabling employers to collaboratively identify skills needs and for delivering flexible, non-traditional learning pathways that complement the formal education system¹²².

This point was reinforced by a senior stakeholder at SkillNet who noted that SkillNet's board and executive team ensure Skillnet Ireland aligns with national policy priorities (e.g. Climate Action Plan, Future Jobs Ireland) while remaining employer driven.

SkillNet also plays an advisory and shaping role in labour market and skills policy. For example, the organisation sits on the advisory group of the Expert Group on Future Skills Needs where they seek to "influence and inform that policy agenda", according to a senior stakeholder at SkillNet. It plays a key role in feeding employer intelligence – gathered through its training networks - into policy design, acting as an intermediary between enterprise and the state:

¹²² Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020

"We're a kind of interface between government and enterprise... we can feed that intelligence back into policy" (SkillNet Senior Stakeholder)

SkillNet objectives and governance

The mission of SkillNet Ireland is to support the development of skills that contribute to the productivity, competitiveness, and sustainability of the Irish economy. The organisation works in collaboration with employers to address current and emerging skills needs, with the aim of equipping businesses across sectors with the capabilities required to adapt and grow.¹²³

Skillnet Ireland's core mission is to support businesses, particularly SMEs, in developing their workforce, ensuring that skills remain aligned with evolving enterprise needs. Its approach is enterprise led, delivering targeted, demand driven training through a national network of over 70 sectoral and regional SkillNet networks. These networks co-design and deliver flexible upskilling solutions that reflect the priorities of the businesses they serve.

According to a senior stakeholder at SkillNet, the model's core aim is to enhance employers' productivity, competitiveness, and innovation, with a strong focus on enabling transformation in areas such as digitalisation, sustainability, and leadership. This stakeholder emphasised that the organisation also prioritises inclusive access to training, particularly for lower-skilled and older workers, aligning closely with Ireland's broader lifelong learning agenda. This ensures that upskilling is not only responsive to business demands but also supports wider workforce participation and resilience.

SkillNet functions as an arms-length body. It has its own board composed of 13 non-executive directors representing the Irish Business and Employers Confederation (IBEC), trade unions, small business associations, and government, following a tripartite governance model. The board is supported by three committees: the Audit and Risk, Finance and General Purpose, and Evaluation and Performance Monitoring. SkillNet is required to comply with the Code of Governance for State Bodies, indicating a formal but operationally independent status. A senior stakeholder interviewed for this research highlighted the role this independent status plays in enabling the organisation to remain agile and responsive to changing labour market needs.

Partnership working

Skillnet Ireland partners with over 57 industry representative bodies to support the operation of its 70 sectoral and regional SkillNet Business Networks. These partnerships help ensure that SkillNet's co-funded training programmes are aligned with current industry needs and remain responsive to evolving labour market

¹²³ Skillnet Ireland (2025) Ireland's Talent Landscape 2025

¹²⁴ Skillnet Ireland (2025) Corporate Governance

demands. The organisation adopts a collaborative approach to engaging employers by encouraging them to work together to identify needs, strengthen workforce capabilities partner with training providers, using its business network model. Key partners include:

- IBFC
- Chambers Ireland
- Construction Industry Federation
- Irish Farmers' Association
- Chartered Institute of Personnel and Development
- Law Society of Ireland
- Irish Small and Medium Enterprises Association
- Institute of Certified Public Accountants
- Irish Centre for Business Excellence
- Technology Ireland
- Irish Medtech Association
- Retail Ireland.

These collaborations support both regional and national skills development objectives by fostering greater employer participation in workforce upskilling and reskilling ¹²⁵.

Structure and execution

Skillnet delivered upskilling and training programmes valued at €76 million (£66 million) across the Irish workforce in 2024, up from €70.2 million in 202126 and €60.2 million in 2021127. Approximately €28 million (37%) of this total funding came from employer contributions, whereas the remainder, €48 million (63%), was provided by the NTF, managed by the Department of Further and Higher Education, Research, Innovation and Science128. NTF is a dedicated fund to support the training of those seeking to take up employment, those in employment seeking to upskill, and facilitate

¹²⁵ Skillnet Ireland (2024) Annual Report 2024

¹²⁶ Skillnet Ireland (2023) <u>2022 Annual Report: Skillnet Ireland reports significant increase in support to businesses of all sizes</u>

¹²⁷ Skillnet Ireland (2021) Annual Report 2021

¹²⁸ Skillnet Ireland (2024) Annual Report 2024

lifelong learning. It is financed by a 1% levy on employers and collected through the PAYE/PRSI system129.

The rate of direct employer contributions has decreased over the years, with 47% of funding stemming from direct enterprise funding in 2019. Employers' match-funding has since stabilised, consistently accounting for 37% of SkillNet's funding since 2020. 130

SkillNet operates through a decentralised, employer-led model made up of SkillNet Business Networks.¹³¹ Each network functions as a partnership of companies within a specific sector (e.g. construction, medtech, financial services) or region (e.g. Midlands, West, Dublin). These networks form the operational foundation of SkillNet's upskilling and reskilling model. They are employer-driven in structure and purpose, with steering groups of businesses within each network playing a central role in identifying skills needs, designing training content, selecting training providers, and overseeing programme delivery. This ensures training is directly aligned with current industry challenges and workforce demands.

Each network is governed locally but supported by SkillNet, which provides oversight, quality assurance, and strategic guidance. Network managers or coordinators, usually employed by the host organisation (such as a trade body or business association), administer day-to-day operations.

According to the SkillNet senior stakeholder interviewed as part of this project, SkillNet Ireland does not centrally procure training. Instead, training providers are selected by steering groups based on need, quality, and value for money. Training programmes are often co-designed with providers to ensure content is tailored, relevant, and delivered in flexible formats, such as short courses, blended learning, or modular workshops.

In addition to Business Networks, SkillNet funds and delivers:

Sector specific upskilling initiatives¹³², including SkillNet Modern Methods of Construction Accelerate which supports the upskilling of the construction workforce and the Offshore Wind and Climate Ready Academies which provide employees with flexible training, mentorship, on-the-job project work and a suite of stackable, interchangeable micro-credential programmes. For example, SkillNet commissioned Wind Energy Ireland as the delivery partner for the Offshore Wind Academy. In collaboration with businesses, it has designed three micro-credential programmes with Irish universities, delivered by University College Cork and University of Galway¹³³.

¹²⁹ Parliamentary Budget Office (n.d.) <u>An Overview of the National Training Fund (NTF)</u>

¹³⁰ Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020

¹³¹ Skillnet Ireland (n.d.) Skillnet Business Networks

¹³² Skillnet Ireland (n.d.) Skillnet Ireland Initiatives

¹³³ Skillnet Ireland (n.d.) Skillnet Offshore Wind Academy

- Skills support for employers, including the SkillNet Innovation Exchange, a skills marketplace brokerage service that connects large businesses facing innovation challenges with SMEs with qualified employees, and MentorsWork is a targeted business support programme focused on SMEs.¹³⁴
- Skills Connect bespoke and free training programmes and job placements, designed by employers, aimed at supporting unemployed individuals re-entering the workforce. Business Networks currently deliver Skills Connect programmes in medtech manufacturing, cyber security, wind energy, software programming, customer service and customer experience.¹³⁵

Insight from the interview with SkillNet's senior stakeholders indicates that the organisation also plays a facilitative role in areas of innovation and foresight, in addition to its coordination role. Though less than 2% of its budget is dedicated to research, the organisation maintains a small research and innovation unit that collaborates with external experts and sector stakeholders. This includes work on defining green skills taxonomies, supporting labour market foresight, and contributing to national advisory groups such as the Expert Group on Future Skills Needs. These activities help inform future-focused programme development and policy alignment. According to the interviewee, SkillNet's network-based model not only delivers sector-specific training but also creates communities of practice - enabling employers to learn from each other while jointly addressing workforce challenges.

Reach and effectiveness

In 2024, SkillNet supported over 24,000 businesses nationwide through its 70 Skillnet Business Networks and National Initiatives, delivering 10,404 upskilling programmes aimed at helping enterprises adapt to technological change and emerging challenges. The organisation placed a particular focus on accelerating digital and green transformation, with 14,711 workers participating in digital skills programmes, covering both specialised technologies like artificial intelligence and practical digital adoption for SMEs. Additionally, 4,119 businesses and 7,720 employees engaged in climate and green training, with programmes addressing areas such as energy management, offshore wind, environmental, social and governance reporting, and biodiversity.

Evaluation data from 2019–2020¹³⁶ further highlight SkillNet's scale and impact. In 2020 alone, the organisation:

 Supported 24,370 enterprises, 94% of which were SMEs - representing 8.3% of all SMEs in Ireland

¹³⁴ Skillnet Ireland (n.d.) Skillnet Ireland Initiatives

¹³⁵ Skillnet Ireland (n.d.) Skills Connect

¹³⁶ Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020

Delivered over 613,000 training days, 93% of which were for people in employment.

Business managers consistently reported that SkillNet's training was aligned with their workforce development needs, with more than 80% of firms (regardless of size) agreeing that their network provided relevant and effective support. Reported benefits included improvements in product or service quality (58%), with approximately half of employers agreeing that the training received had had an impact on their productivity, innovation, and long-term business sustainability.

SkillNet has also played an important role in the development of digital and ICT skills nationally. It has supported research in digital transformation and helped shape national ICT strategy, particularly through the Technology Ireland ICT Skillnet, which contributed to the creation of Ireland's first MSc in Artificial Intelligence and other advanced programmes in cybersecurity, cloud computing, and blockchain. These efforts reflect Skillnet's expanding contribution to Ireland's workforce development system, especially in addressing future skills needs across high-growth and transition sectors.

Lessons learned

The section below outlines key learning on what has worked well and less well:

Internal and external coherence

SkillNet's 2019-2020 evaluation¹³⁷ found strong internal consistency across SkillNet Ireland's Business Networks and initiatives. The majority of Network Managers and Promoters reported good communication and alignment within the Skillnet system. Nearly 60% stated there was no unnecessary duplication across networks, and most felt they had access to strategic information and business advice to support effective delivery.

There was a greater concern about potential overlaps with other national enterprise agencies (e.g. other government-supported training initiatives), particularly due to increased public investment in workforce development. Views were mixed: some managers believed external coordination was effective, while others identified potential gaps or duplication between SkillNet and external actors.

Sustainability of the model

Long-Term Engagement:

The evaluation report showed strong evidence of enduring partnerships, with 52% of surveyed member firms having participated since 2017 or earlier. This indicates that businesses see continued value in remaining part of their SkillNet networks.

¹³⁷ Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020

Training Quality and Market Position:

Successive evaluations since 2013 have confirmed that businesses consistently view SkillNet training as high-quality and difficult to replace elsewhere. This perception has remained strong even as the organisation expanded in size and reach during the 2019-2020 period.

Network Viability and Finance:

Most Network Managers (72%) reported confidence in the viability of their network under the current model. Importantly, they did not experience major challenges in securing employer co-funding, which is crucial to SkillNet's co-investment approach. Managers also expressed optimism about continued employer demand and their networks' impact across wider sectors 138.

Employer engagement

SkillNet's interview participant emphasised that a core strength of the organisation's approach to employer engagement lies in its enterprise-led model, which ensures that training is defined and shaped by business needs.

Skillnet's co-funding model creates strong employer buy-in and sectoral relevance. In addition to this, in SkillNet's model employers are not passive recipients but actively shape the agenda and are responsible for identifying skill gaps, co-designing programmes, selecting providers, and guiding delivery through network steering groups. This bottom-up structure creates high levels of trust and ownership among businesses, particularly SMEs, according to the interviewee.

The interviewee also highlighted the value of "communities of practice", where employers benefit not only from training but from peer-to-peer learning and shared problem-solving. However, they acknowledged that challenges could arise when businesses lack the internal capacity to engage strategically with training, or when networks are under pressure to meet very diverse needs with limited resources.

Transferability to the UK

Key reflections on the applicability and transferability of this learning to a UK context include:

Comparable elements or policies

There are strong parallels between NTF (€1 billion raised in 2023/24) and the UK's apprenticeship levy (£3.8 billion raised in 23/24). In particular, the reform of the Levy into the Skills and Growth Levy will introduce increased flexibilities in the training that it can fund, with some similarities to the NTF. Lessons from the NTF – including its strategic distribution of funding to key policy initiatives – may be useful during this reform process. However, as noted previously, in Northern Ireland, Scotland,

¹³⁸ Indecon (2022) Evaluation of Skillnet Ireland in 2019-2020

and Wales, the link between funds raised by the apprenticeship levy and skills is not present. Funds raised by the Levy are collected and then distributed back to the devolved governments as part of the block grant, rather than being ringfenced for skills and training.

• The employer-led nature of the system is also comparable to the UK context, where training provision is generally based on employer demand and there is a high level of employer involvement in the development of occupational standards, on which technical qualifications are based.

Takeaways and considerations

- SkillNet is a well-established agency which has been operating for over 20 years. It
 would potentially require substantial time for similar networks with employers to be
 set up by a similar body in the UK (or separate bodies in each of the four nations).
- There are also key differences in labour market characteristics across both countries – Ireland has a younger demographic than the UK (and the EU) and faster economic growth following the pandemic than in the UK, and a sizeable proportion of Ireland's workforce is employed by multinationals.¹³⁹
- SkillNet operates in a context where Ireland has a relatively cohesive industrial strategy and younger workforce. In the UK, integration with broader skills bodies (e.g., Local Skills Improvement Plans in England or Regional Skills Partnerships in Wales) would be necessary to avoid duplication. There would be a substantial risk of fragmentation in the UK if not aligned with national priorities.
- Despite this, a similar sector-based, co-investment structure could incentivise greater employer commitment to training in priority industries, while leveraging industry-led networks to shape provision. This could work well in UK growth sectors such as green tech, advanced manufacturing, or life sciences.

54

¹³⁹ A large proportion (27%) of the workforce in Ireland is employed by multinationals. American multinationals account for 74% of turnover generated by foreign-owned multinationals in Ireland. See: Ireland Central Statistics Office (2024) <u>Business in Ireland 2022 - Insights on Multinationals</u>.

Appendix C - Netherlands, SLIM Subsidy Scheme

Case study overview

The SLIM (Stimuleringsregeling Leren en ontwikkelen in mkb-ondernemingen)¹⁴⁰ Subsidy Scheme was launched in 2020 by the Dutch Ministry of Social Affairs and Employment. The SLIM Scheme covers part of employers' training costs, depending on the company size: namely 80% for small enterprises and 60% for medium enterprises. The scheme is intended primarily for SMEs, although large employers can apply for the subsidy either as part of the consortia strand or if operating in the agriculture, hospitality and recreation sectors¹⁴¹. SLIM also offers support to employers in developing a learning and development plan.

Acronym	Definition
LLO	Lifelong Learning
SZW	Ministry of Social Affairs and
	Employment
RVO	Netherlands Enterprise Agency
UWV	Employee Insurance Agency
DUO	Education Executive Agency
UVB	Uitvoering van Beleid

Background

Despite having high levels of basic digital skills and a high proportion of ICT specialists in employment, the Netherlands is set to experience substantial digital labour market shortages

In 2024, 82.7% of the population in the Netherlands had basic digital skills, according to the 2025 EU Digital Decade report. This is compared to the EU average of 55.6%. This places the Netherlands ahead of the EU's 2030 target, which aspires for 80% of citizens to attain basic digital competencies¹⁴². It is broadly comparable to the UK, where 82% of the workforce are estimated to have the essential digital skills needed for work.¹⁴³ In addition to this, the percentage of ICT specialists in employment in 2024 (6.9%) had surpassed the EU average (4.8%).¹⁴⁴

Despite this, the Netherlands expects to see severe and widening labour market shortages, particularly in digital and technical professions essential to the climate and

¹⁴⁰ 'Incentive Scheme for Learning and Development in SMEs'

¹⁴¹ Minister of Social Affairs and Employment (n.d.) About SLIM

¹⁴² EU (2025) <u>Digital Decade 2025. Country Reports: Netherlands</u>; Lidija Kralj (2023) <u>The Netherlands: a snapshot of digital skills</u>, Digital Skills and Jobs Platform

¹⁴³ Lloyds Bank (2024) UK Consumer Digital Index 2024

¹⁴⁴ Lidija Kralj (2023) <u>The Netherlands: a snapshot of digital skills</u>, Digital Skills and Jobs Platform

digital transitions. According to the Green and Digital Jobs Action Plan, the country had nearly 36,000 ICT vacancies by mid-2022, with demand projected to grow by over 58,000 ICT professionals by 2026. These shortages are affecting critical sectors related to the transition to net-zero and include both traditional technical skills (e.g. metalworking and engineering) and newer digital roles such as data science, cybersecurity, programming, and Agile methodologies. The UK is experiencing similar digital skills shortages with one in four (23%) employers saying that their current workforce lacks the basic digital skills that they need, rising to over one in three (37%) in relation to advanced digital skills. The sectors with the greatest growth and highest skill need in the UK also mirror those in the Netherlands, with advanced manufacturing, clean energy industries and digital and technologies identified as priority sectors in the UK's Industrial Strategy. The sectors with the greatest growth and sectors in the UK's Industrial Strategy.

The Netherlands is experiencing a higher-than-average exposure to AI disruption, with 95% of businesses agreeing that they are likely to be affected by automation processes, compared to an 88% global average. This is translating into skills gaps: while several EU countries report employee weaknesses in computer and software skills, the Netherlands is unique in that employers themselves consistently cite digital skill deficits as a top challenge. Here

These gaps are not limited to hard skills. Dutch employers also report a lack of essential employment skills, particularly communication, teamwork, adaptability, and safety awareness, which are increasingly critical in digitally enabled, collaborative work environments.¹⁵⁰

Forecasted skills gaps are likely to deepen existing labour market inequalities

The gap between the needs of employers in digital and green skills and the available skills in the workforce appears to be partly structural, appears partly structural, driven by an ageing workforce, low enrolment and high dropout rates in technical education. This is compounded by existing and worsening inequalities: women are disproportionately exiting the technical pipeline, partly due to a lack of part-time roles

¹⁴⁵ House of Representatives of the States General (2023) <u>Letter from the government; Tackling labour</u> <u>market shortages in the climate and digital transition: The Green and Digital Jobs Action Plan - Labour</u> market policy - Parliamentary Monitor

¹⁴⁶ Learning and Work Institute (2021) <u>Disconnected? Exploring the digital skills gap</u>

¹⁴⁷ UK Government (2025) <u>The UK's Modern Industrial Strategy</u>

World Economic Forum (2025) Future of Jobs Report

¹⁴⁹ OECD (2024) Understanding Skill Gaps in Firms: Results of the PIAAC Employer Module

¹⁵⁰ House of Representatives of the States General (2023) <u>Letter from the government; Tackling labour market shortages in the climate and digital transition: The Green and Digital Jobs Action Plan - Labour market policy - Parliamentary Monitor</u>

and limited retention in male-dominated sectors.¹⁵¹ The UK is similarly seeing a low take up on higher technical education.¹⁵²

Most employers in the Netherlands expect recruitment challenges; most are set to invest in automation, followed by upskilling and recruiting new employees as a response

Looking ahead, 56% of Dutch employers across all sectors expect hiring to remain difficult through 2030, according to the World Economic Forum Future of Jobs Report 2025. 153

In response, 86% of businesses are planning on accelerating the automation of processes and tasks as a key workforce strategy to address talent shortages, a higher level than their global peers. Upskilling (envisaged by 83% of respondents) and recruiting talent with new skills (anticipated by 71%) are also areas of focus.¹⁵⁴

A low proportion of employers in the Netherlands assess their own skills needs, which may pose challenges to future mitigating actions

There are low levels of employer-led skills assessments which are key to identifying gaps and mitigating actions. Almost a fifth of employers in the Netherlands (18%) say they are unaware of potential skills gaps. In fact, only 68% of employers in the Netherlands assess their skills needs regularly or on an ad-hoc basis, with almost one third (32%) saying they do not conduct skill needs assessments ¹⁵⁵. This echoes trends in the UK where nearly three quarters of employers who do not provide training believe there is no need for it. ¹⁵⁶ This points to a strong link between skills needs assessment, awareness and investment in training.

Skills and training policy context

The Lifelong Learning (LLO) agenda, launched in 2018, sets the national vision and framework for fostering a culture of lifelong development. Its core goals include improving access to learning for all working-age adults, strengthening cooperation between education and employers, and building a flexible, modular learning infrastructure. 157

One of the key policies emerging from the LLO agenda has been the launch of the National Lifelong Learning Catalyst (LLO Katalysator) in 2022, supported by a €392 million (£340 million) investment from the National Growth Fund. The initiative

¹⁵¹ House of Representatives of the States General (2023) <u>Letter from the government; Tackling labour</u> market shortages in the climate and digital transition: The Green and Digital Jobs Action Plan - <u>Labour</u> market policy - Parliamentary Monitor

¹⁵² Learning and Work Institute (2021) <u>Making a market for the missing middle: Higher technical education</u>

¹⁵³ World Economic Forum (2025) Future of Jobs Report

¹⁵⁴ World Economic Forum (2025) Future of Jobs Report

¹⁵⁵ OECD (2024) Understanding Skill Gaps in Firms: Results of the PIAAC Employer Module

¹⁵⁶ Learning and Work Institute (2021) Learning at work

¹⁵⁷ House of Representatives of the States General (2018) Parliamentary Paper 30012, Lifelong learning

responds to four core barriers: limited foresight into future skill needs; insufficient learning opportunities; underprepared public education institutions; and a perceived lack of a learning culture. 158 The catalyst's mission is to "initiate and coordinate cooperation between education, business, and government", create new solutions for identified gaps, and support the efficient organisation of lifelong learning both nationally and regionally. The Ministry of Education oversees implementation and works together with educational/knowledge institutions and regional stakeholders such as economic boards, branches, companies, and institutions to ensure solutions are co-developed and grounded in local needs.

The catalyst adopts a bottom-up, region-first approach, structured around four building blocks:

- First, it maps future skills demand through the LLO Radar. This is a strategic tool designed to map future skills needs and align lifelong learning provision with labour market developments
- Second, it facilitates learning labs and transition-oriented upskilling solutions, particularly in sectors like energy and sustainability which bring together educational institutions and employers. An example of this is the Transition Lab led by Utrecht University, Utrecht University of Applied Sciences and ROC Midden Nederland which is designing tailored training for ten employers in the region.¹⁵⁹
- Third, it aims to scale successful institutional initiatives so that they become "structural, affordable, high-quality, and accessible". Examples of these initiatives include co-created modular training, shared educator training structures, capacitybuilding projects in organisations providing lifelong learning and regional training consortia.160
- Lastly, it works to stimulate a national learning culture, using targeted campaigns and employer engagement to encourage participation in lifelong learning. It aims to build a dynamic, demand-responsive lifelong learning infrastructure capable of meeting both national and regional labour market transitions efficiently. 161

Another key strategy with important implications for upskilling and retraining is the Green and Digital Jobs Action Plan, a ten year strategy published in 2023 and led by the Ministries of Economic Affairs and Climate Policy, Education, Culture and Science, and Social Affairs and Employment, with active involvement from industry bodies including Techniek Nederland, Federatie voor de Metaal- en Elektrotechnische

¹⁵⁸ Cedefop, & ReferNet (2025) Lifelong learning catalyst: Netherlands

¹⁵⁹ Utrecht University (2024) UU, HU and ROC MN jointly win two LLO Catalyst grants

¹⁶⁰ Topsector energie (n.d.) <u>LLO-Catalyst</u>

¹⁶¹ Cedefop, & ReferNet (2025) <u>Lifelong learning catalyst: Netherlands</u>

Industrie, and Bouwend Nederland. The plan identifies large shortfalls in technical and ICT professionals and is structured around four pillars:

- STEM uptake
- Talent retention
- Productivity enhancement
- Governance.

Key interventions include public-private training subsidies, individual learning accounts (ILAs), sectoral plans, SME-led training funds, and targeted initiatives for underrepresented and mid-career talent¹⁶². Employers are also encouraged to integrate inclusive hiring practices, with government support channelled through initiatives like the Work Agenda VIA, the Women in Technology Coalition, and the ICT Diversity and Inclusion Task Force, which address low representation of women and young people with a migrant background in tech sectors. The UK also sees an underrepresentation in tech/digital roles of women, people from ethnic minority backgrounds and disabled people.¹⁶³

Challenges

An expert on adult education interviewed as part of this research highlighted that the Netherlands lacks a centrally coordinated, content-driven national policy on adult learning and upskilling. They described the system as "diffused" and noted that responsibilities and decisions are often devolved to the regional level with limited strategic oversight from national ministries. This is likely to limit the ability to articulate national initiatives, such as the SLIM subsidy scheme.

Interviews also pointed to the complexity of the funding landscape for employers. A review of the Business.gov.nl website¹⁶⁴ directed at employers and entrepreneurs at the time of writing in 2025 showed that there was a total of 148 funding schemes available. Despite being consolidated into one page, this demonstrates a substantial fragmentation of the funding landscape which poses challenges regarding access, especially to SMEs.

Upskilling and retraining policies

One of the objectives of the LLO agenda was to encourage self-management – to ensure individuals are aware of training opportunities and funding streams available to

¹⁶² House of Representatives of the States General (2023) <u>Parliamentary paper 29 544, Labour market policy</u>

¹⁶³ Learning and Work Institute (2021) Unlocking potential

¹⁶⁴ Business.gov.nl (n.d.) <u>Subsidies and schemes</u>

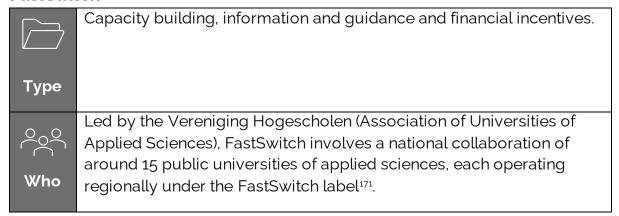
them. This translated into the creation of the Learning Overview tool¹⁶⁵ (Leeroverzicht) which compiles information on training courses, regional and local financial schemes, careers advice and apprenticeship centres aimed primarily at individuals, but also at employers and self-employed individuals.

Employers interested in investing in upskilling and retraining can also consult a separate government website¹⁶⁶ which compiles training and subsidy schemes available to them in addition to support in identifying training needs. This includes:

- A practice-based learning subsidy¹⁶⁷ focused on supporting students
- A practice-based learning third learning pathway¹⁶⁸ for employers, which is designed to support students or individuals at risk of losing their jobs with workbased learning
- Lifelong learning credit¹⁶⁹ a student loan for people younger than 57 who are not entitled to regular student finance
- The SLIM subsidy for SMEs¹⁷⁰, to implement activities such as careers advice, apprenticeships, and using a company training centre to encourage employees to further develop their skills.

Of the existing upskilling and retraining policies in the Netherlands, the following two illustrate models of matching individuals with employers and individual-led approaches:

FastSwitch



¹⁶⁵ Leeroverzicht (n.d) Zoek een opleiding en een manier om deze te betalen

¹⁶⁶ Business.gov.nl (n.d) <u>Retraining for employees and entrepreneurs</u>

¹⁶⁷ Business.gov.nl (n.d) <u>Subsidy Scheme for Practical Learning</u>

¹⁶⁸ Business, gov.nl (n.d) Subsidy for practice-based learning third learning pathway

¹⁶⁹ Business.gov.nl (n.d) <u>Lifelong learning credit</u>

¹⁷⁰ Business.gov.nl (n.d) SLIM subsidy for staff development

¹⁷¹ FastSwitch



Created in 2021, FastSwitch is coordinated locally and nationally by partnering institutions. Institutions work with career switchers and individuals whose jobs will cease to exist and employers across sectors with labour shortages (IT, education, care, engineering)¹⁷². FastSwitch offers retraining through a "Match & Go" work-and-learn model leading to recognised qualifications such as an HBO diploma, associate degree, or industry certificate. Employers co-fund the training and FastSwitch as a whole is funded as part of LLO Katalysator by the National Growth Fund.



How

Participants undergo a two-phase process. In the Match phase, individuals explore roles and employers and are supported in selection and matching. In the Go phase, they engage in simultaneous paid employment and training, earning credentials while working full or part time - many progress to permanent positions after completion. A 2025 report by LLO Katalysator shows that FastSwitch placements help reduce staffing shortages and improve job satisfaction, particularly in sectors such as IT, teaching and nursing.¹⁷³

STAP Budget ("Stimulerings ArbeidsmarktPositie")



¹⁷² FastSwitch

FastSwitch: minder arbeidstekorten en meer werkgeluk op hbo/wo-niveau (LLO)

¹⁷⁴ UNECE (2022) STAP budget

¹⁷⁵ Academy for Coaching and Counselling (n.d) <u>STAP budget</u>



STAP offers individuals up to €1,000 a year for skills training linked to career or job advancement. The training course must be listed in the STAP training register maintained by DUO (Education Executive Agency).¹⁷⁶ Despite high satisfaction with the scheme and positive perceived labour market effects for STAP participants, the STAP budget (€292 million or £253 million over two years) was not sufficient to meet demand and there were challenges regarding the quality and labour market relevance of the training available.¹⁷⁷

Policy deep dive - SLIM Subsidy Scheme

At a glance

The SLIM Subsidy Scheme was selected as a key example of a centralised policy initiative focused primarily on providing financial incentives – subsidies – as a mechanism to drive up employer investment in training.



¹⁷⁶ UNECE (2022) STAP budget

¹⁷⁷ SEOR (2024) New publication: Interim report evaluation STAP

¹⁷⁸ Ministry of Social Affairs and Employment (n.d.) About SLIM



Projects typically run for up to 12 months (individual SMEs) or up to 24 months (consortia or large firms). Funding is capped at €24,999 for individual SMEs, €200,000 for large enterprises, and €500,000 for consortia. Between March 2020 and September 2023, more than 17,000 applications were submitted to the SLIM scheme, of which 4,871 were approved and funded.

Policy context

SLIM was introduced within the Government of the Netherlands' LLO agenda, part of a multi-pronged approach to support labour market adaptability. It complements other policy instruments such as the STAP budget, learning accounts, and reforms in vocational education. It is part of the Netherlands' broader strategy to improve workforce adaptability, especially in light of demographic shifts, digitalisation, and economic transformation.

SLIM is part of the Government of the Netherlands' efforts. It is also part of a wider shift from reactive to proactive labour market policy, aiming to strengthen employability and prevent unemployment by supporting employers in understanding and addressing their training needs¹⁷⁹.

SLIM was launched in response to the relatively low learning participation rates among adults in SMEs, despite a growing need for upskilling due to technological change and globalisation¹⁸⁰.

SLIM objectives and governance

The SLIM scheme aims to embed a culture of lifelong learning and continuous development within SMEs¹⁸¹ by helping employers integrate learning into their organisational structures. SLIM specifically targets SMEs in response to the fact that they are less likely to invest in on-the-job learning¹⁸². In addition to providing targeted subsidised support to access training, it seeks to foster wider and sustainable organisational change.

The scheme is managed by the Uitvoering van Beleid (UVB), an executive agency under the Ministry of Social Affairs and Employment. Policy oversight and evaluation are guided by a cross-ministerial steering committee that includes representatives from the Ministries of Social Affairs and Employment, Education, Culture and Science, and Economic Affairs and Climate Policy.

63

¹⁷⁹ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁸⁰ SEOR (2021) Evaluation Application and Assessment Process - SLIM Scheme 2020. Unpublished

¹⁸¹ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁸² Government of Netherlands (n.d) <u>SLIM scheme</u>

An interim evaluation of SLIM found that it was administratively well-organised with a transparent application process and clearly defined eligibility rules. However, smaller companies report difficulty navigating the system¹⁸³.

Monitoring and evaluation are embedded into the governance framework, with periodic evaluations commissioned to inform improvements and future decision-making¹⁸⁴.

Partnership working

The scheme is open to individual employers, childcare agencies, and collectives (e.g. sector organisations or training funds). SLIM has prioritised a collaborative approach, encouraging joint applications and shared learning infrastructure. Organisations such as Katapult – commissioned by the Ministry of Social Affairs and Employment - and LLO Katalysator have played a key role in supporting applicants with co-design, peer exchange, and strategy development.

Katapult¹⁸⁵ plays a coordinating and support role in delivering wraparound services to prospective and existing SLIM applicants. According to Katapult, this includes:

- Online meetups to foster peer exchange
- Masterclasses and tools on learning culture topics (e.g. leadership, feedback)
- Information sessions and explainer videos on how to apply
- Highlighting examples of practice from successful applicants to inspire others
- Providing a helpline and email support to answer application or implementation questions.

Employer engagement has been strong throughout the scheme's lifespan, with early application rounds oversubscribed. To ease access, the Government introduced advance payment options in 2021 and has since simplified the application process.

SLIM supports collaborative consortia, which large employers are eligible for. These may include sector training funds, educational institutions, employers' associations, and regional development bodies. These partnerships allow pooling of expertise and economies of scale. Projects led by consortia often include knowledge-sharing between businesses, co-creation of curricula with education providers, and the development of industry-wide learning tools¹⁸⁶. An evaluation of SLIM found that, in

¹⁸³ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁸⁴ SEOR (2021) Evaluation Application and Assessment Process - SLIM Scheme 2020. Unpublished

¹⁸⁵ Katapult (n.d) We are Katapult

¹⁸⁶ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

practice, consortia reduce administrative burdens on individual SMEs by centralising project coordination¹⁸⁷.

Structure and execution

SLIM provides financial support for four categories of activities including both direct subsidies and capacity-building support:

- Activity A: An internal skills audit or organisational needs analysis
- Activity B: Careers advice or coaching aimed at employees
- Activity C: Development or implementation of learning and development methods such as e-learning, mentorship models, or internal academies

Activity D: Provision of practical learning placements (for example, work-based learning under the 'third learning path'). Funding is allocated on a project basis, although employers can apply for the scheme more than once, as noted by one of the interviewees involved in this research. Projects typically run for up to 12 months (individual SMEs) or up to 24 months (consortia or large firms). Funding is capped at €24,999 (£21k) for individual SMEs, €200,000 (£173k) for large enterprises, and €500,000 (£433k) for consortia. Subsidy rates are set at 80% for small enterprises and 60% for medium companies. Most projects combine multiple activities. For example, many combine an audit (A) with method development (C) or career advice (B), showing integration across HR functions¹88. Most applications were for work-based placements (83%) and internal skills audits or needs analysis (65%), indicating a strong demand for organisational learning strategies and the development of in-house learning tools.

Examples of SLIM subsidised schemes include:

- One participating company used SLIM to establish an internal knowledge platform, where employees could upload and access instructional videos – which was perceived as an effective innovation by the employer¹⁸⁹
- Another project introduced a digital onboarding process supported by a 'buddy system' - which was seen as particularly valuable in sectors with high staff turnover like hospitality¹⁹⁰.

The application process includes three open calls per year. Applications are assessed based on predefined criteria such as target group, activity type, cost-efficiency, and relevance to the promotion of learning culture.

¹⁸⁷ SEOR (2021) Evaluation Application and Assessment Process – SLIM Scheme 2020. Unpublished

¹⁸⁸ SEOR (2021) Evaluation of the SLIM Scheme - Baseline Measurement 2020. Unpublished.

¹⁸⁹ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁹⁰ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

The scheme is aimed primarily at:

- Individual SMEs across all sectors
- Large companies in agriculture, hospitality, and recreation
- SME consortia including partnerships between employers, training providers, sector organisations, or trade unions¹⁹¹.

The interim evaluation of the SLIM Scheme found that the main motives driving employers' subsidy applications were:

- Individual employers: as a key tool to anticipate market and technological developments. Employees' personal development or retention of personnel were mentioned to a lesser extent
- Consortia: stimulating knowledge sharing, labour market shortages and technological developments were highlighted as the three main drivers¹⁹².

According to the adult education expert interviewed as part of this research, SLIM is part of and, at the same time, contributing to a broader shift in policy that encourages partnerships between employers and educational institutions.

Reach and effectiveness

Between March 2020 and September 2023, more than 17,000 applications were submitted to the SLIM scheme, of which 4,871 were approved and funded. There was a wide variety of sectors, company sizes, and regions among applicants, which reflects the scheme's broad relevance¹⁹³. Employers that were granted a SLIM subsidy were already supporting employees' learning and development activities (96% of employers), although less than half of employees had taken part in training in the past year and only 66% of employers regularly assessed learning needs¹⁹⁴.

An evaluation conducted in 2024 employed a counterfactual approach, using a quasi-randomised control group of unsuccessful applicants. This allowed for comparison between companies that received funding and those that applied but did not receive it.

Companies that received SLIM funding scored significantly higher on several indicators of learning culture: clarity of employee ambitions, structured learning processes, and availability of development activities¹⁹⁵.

¹⁹¹ SEOR (2021) Evaluation of the SLIM Scheme – Baseline Measurement 2020. Unpublished.

¹⁹² SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁹³ SEOR (2021) Evaluation of the SLIM Scheme - Baseline Measurement 2020. Unpublished.

¹⁹⁴ SEOR (2021) Evaluation of the SLIM Scheme – Baseline Measurement 2020. Unpublished.

¹⁹⁵ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

Key impacts include:

- The majority (85%) of employers in the treatment group agreed that employees' competencies had improved in the last year, in comparison to 65% in the control group
- A 49% increase in time investment in learning among recipients
- A 44% rise in budget allocation to training
- Improved alignment between HR strategies and organisational goals
- Increased use of learning analytics and feedback loops.

Employers also reported:

- Increased employee motivation and engagement
- Stronger internal communication about training opportunities
- More inclusive access to learning, particularly among lower-skilled workers.

The evaluation found that the projects subsidised by SLIM often serve as catalysts for rethinking and professionalising HR policy, especially in smaller companies where structured learning and development (L&D) processes were previously lacking ¹⁹⁶.

Lessons learned

The section below outlines key learning on what has worked well and less well in the set up and delivery of the SLIM Scheme:

Generating organisational change

SLIM projects were found to often act as catalysts for wider organisational change. This is likely to be the result of the scheme's emphasis on skills analysis and learning culture, alongside the wraparound support offered by Katapult.

Likewise, project activities generated value beyond the subsidy, such as new partnerships and innovation in HR practices. SLIM strengthens internal learning infrastructure, particularly in smaller employers. According to SLIM's interim evaluation, for many SMEs, SLIM acted as a trigger for strategic thinking about workforce development¹⁹⁷

¹⁹⁶ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

¹⁹⁷ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

Accessibility

Administrative demands related to the application process deter smaller businesses from applying. An interview with a Katapult stakeholder emphasised that SMEs find the SLIM application process too complex or burdensome, particularly if they do not have prior experience in learning and development

According to the adult education expert interviewed for this research, consortia-based applications are key in ensuring employers are engaged in programme design, and that training providers deliver higher quality, work-relevant content, which "improves the meaning of the programme and also the possibility to increase the employability of the learners".

An evaluation of SLIM found that, in practice, consortia reduce administrative burdens on individual SMEs by centralising project coordination¹⁹⁸.

Scheme design

Work-based placements (Activity D) are rarely used and perceived as poorly aligned with the target group. Employers perceived work-based placements to be substantially different from the remaining three activities, potentially because they are mostly focused on capacity building and training design, rather than the delivery of onthe-job learning¹⁹⁹.

Despite the potential of work-based placements, uptake remains limited, partly because employers see practical placement arrangements as too complex or irrelevant to their setting²⁰⁰.

Almost all of the employers that were granted a SLIM subsidy were already supporting employees' learning and development activities (96% of employers), which may point to shortfalls in outreach and employer engagement strategies. This highlights the risk that funds may be used by employers to reduce the cost of training they would have otherwise still provided, but may also demonstrate that SLIM may play a role in reinforcing and support existing good practice among employers

Sustainability

The evaluation of the SLIM Scheme found that the temporary nature of funding hinders its sustainability for applicants. Employers also stressed the importance of continuity: one-off funding was not seen as enough to create lasting behavioural change in learning and development²⁰¹.

¹⁹⁸ SEOR (2021) Evaluation Application and Assessment Process – SLIM Scheme 2020. Unpublished

¹⁹⁹ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

²⁰⁰ SEOR (2021) Evaluation of the SLIM Scheme - Baseline Measurement 2020. Unpublished.

²⁰¹ SEOR (2024) Interim Evaluation of the SLIM Scheme. Unpublished.

Despite this, according to the Katapult stakeholder interviewed as part of this research, employers can and do apply for multiple rounds of funding across different open calls. This results in employers receiving cumulative support from the Scheme over time.

Transferability to the UK

Key reflections on the applicability and transferability of this learning to a UK context include:

Comparable elements or policies

- The National Lifelong Learning Catalyst adopts a bottom-up, region-first approach which is aligned with the UK's devolution agenda.
- The risk of policy disarticulation seen in this case study is also present for the UK, as a result of parallel and overlapping policies and programmes and a lack of coordination. This currently poses substantial challenges to employers when navigating the skills and training systems.
- There are some parallels between the SLIM subsidy approach and the Skill Focus initiative in Northern Ireland, which is aimed at SMEs. This, however, is a much smaller scheme and focuses on helping employees of SMEs obtain level 2 qualifications.²⁰²
- It is therefore key to prioritise articulation in the UK context and at a devolved nation level to avoid policy diffusion and limited strategic oversight from national ministries which is impacting the Netherlands.

Takeaways and considerations

- SLIM demonstrates that standalone financial incentive schemes have limitations. Strong relationships with employers are key to provide wraparound and peer support to generate organisational change and address systemic barriers to underinvestment in training.
- The transferability of SLIM depends on the existence of a similar body to Katapult. An equally independent and trusted organisation would be needed to bridge government and businesses. Simplified grant processes and targeted outreach through trusted intermediaries (e.g., sector bodies, Chambers of Commerce) could boost SME participation.
- In the Netherlands, SLIM has been criticised for complex application processes and inaccessible language. A UK version would need plain-language guidance, light-

²⁰² Department for the Economy (2025) FE Circular 03/25 - Skills Focus.

touch bureaucracy, and wraparound support. Without these, uptake could be low and skew toward already-engaged employers.

 Similarly to Canada, the Government of the Netherlands has also compiled training and subsidy schemes into a government website, which the UK could replicate.
 This would need to be implemented at a devolved national level, due to differences in approaches to qualifications across the constituent nations of the UK.

Appendix D - Singapore, SkillsFuture

Case study overview

SkillsFuture Singapore (SSG) is a statutory board established by the Singaporean Ministry of Education (MoE) in 2015 that coordinates the implementation of the national SkillsFuture movement. The movement focuses on providing advice and guidance for individuals and employers through thematic programmes and on creating an integrated skills provision offer at a national level in partnership with training providers. SSG drives and coordinates policies on lifelong learning, workforce skills development, and training quality assurance.

Acronym	Definition
SSG	SkillsFuture Singapore
MoE	Singaporean Ministry of Education
MOM	Ministry of Manpower
WSG	Workforce Singapore
ITMs	Industry Transformation Maps
JTMs	Jobs Transformation Maps
EDB	Economic Development Board
ESG	Enterprise Singapore
NTUC	National Trades Union Congress
CCPs	Career Conversion Programmes
MCPP	Mid-Career Pathways Programme
WSS	Workfare Skills Support
SFQBs	SkillsFuture Queen Bee Networks
SDPs	Skills Development Partners
ITEs	Institutes of Technical Education
SCTP	SkillsFuture Career Transition
	Programme
SFEC	SkillsFuture Enterprise Credit
RISE	Rapid & Immersive Skill Enhancement
PSG	Enhanced Productivity Solutions Grant
TRAQOM	Training Quality And Outcomes
	Measurement
PMETs	Professionals, Managers, Executives,
	and Technicians

Background

A high proportion of employers in Singapore expect the business landscape to be affected by geoeconomic fragmentation and skills gaps

In Singapore, 64% of employers expect their business to be impacted by geoeconomic fragmentation, twice the global average of 34%. The UK follows a similar trend, with 56% of employers identifying geoeconomic fragmentation as a disruptor. This includes increased restrictions to global trade and investment and increased geopolitical division and conflicts²⁰³. In line with global and regional peers, employers in Singapore expect skills gaps, regulatory barriers and organisational resistance to present challenges for business transformation.

In comparison to their global peers, a higher proportion of Singaporean employers expect broadening digital access and climate adaptation policies to impact their organisations

Seventy one percent of Singaporean employers expect digitalisation to affect their operations, in comparison to 60% worldwide and 64% in the UK. Regarding climate adaptation, most employers in Singapore think that increased efforts and investments to reduce carbon emissions (58%) and adapt to climate change (53%) will impact their business. This is in line with the landscape in the UK, with 57% and 56% of employers, respectively – substantially higher than the global average of 47% and 41%, respectively²⁰⁴.

Green, digital, care and creative skills will be in high demand in Singapore Singapore's future skills landscape is being shaped by growth in the green, digital, and care economies according to an analysis of job posting data from 2019 to 2023. Green skills have seen consistent demand over the past two years, particularly in agrifo od, sustainable finance, and carbon management. This trend is expected to accelerate as climate-related disclosure requirements become mandatory, driving the need for expertise in sustainability reporting and environmental risk management.

Small and medium enterprises (SMEs) face challenges from a shortage of digital talent and high technology adoption costs. Meanwhile, Singapore's ageing population is fuelling demand for care-related skills, especially those that support holistic care provision and innovative service delivery models in healthcare and community services. There is also an increase in demand for creative skills, including in non-creative professions, with 7 in 10 non-creative professionals – namely IT, Engineering, Operations, Sales, and Business Development - requiring creative skills²⁰⁵.

²⁰³ World Economic Forum (2025) Future of Jobs Report

²⁰⁴ World Economic Forum (2025) Future of Jobs Report

²⁰⁵ SSG (2025) Skills Demand for the Future Economy Report

These trends in occupational structure mirror those of the UK, where the highest growth in labour market opportunities and training requirements is expected in care, health and green-related occupations²⁰⁶.

Despite a strong intention to prioritise upskilling, there is limited data on the rate of employer-sponsored training in Singapore

Almost all (97%) companies in Singapore plan to invest in upskilling as their key workforce strategy, significantly above global levels. Other key strategies include hiring talent with emerging skill sets and implementing process automation. Although a skills-first approach is seen to broaden Singapore's talent pool, 58% of employers still anticipate placing emphasis on university degrees during hiring - a rate higher than the global average of 43%.²⁰⁷

Despite this, there is no recent evidence on the extent to which employers are currently investing in employee training. The latest data on employer-sponsored training in Singapore refers to 2014 levels, when 8 in 10 private establishments in Singapore provided structured training to at least one employee.²⁰⁸

Skills and training policy context

The Ministry of Manpower (MOM)²⁰⁹ is the government department leading on workforce policy through its statutory board, Workforce Singapore (WSG)²¹⁰. WSG administers employment support schemes, career conversion programmes, and jobseeking support. In partnership with MOM, SSG²¹¹ promotes lifelong learning and administers training subsidies, skills qualifications, and enterprise training credits.

Two key tools used by the Singaporean Government to assess and respond to economic transformation are Industry Transformation Maps and Jobs Transformation Maps, with important differences across both.

Industry Transformation Maps (ITMs)

- Are led by the Ministry of Trade and Industry, in collaboration with Economic Development Board (EDB), Enterprise Singapore (ESG) and sectoral agencies
- Identify how industries need to evolve to stay competitive (e.g. adopting automation, sustainability, digitalisation)²¹², offering a roadmap for sector transformation

²⁰⁶ NFER (2022) <u>The Skills Imperative 2035</u>: <u>Occupational Outlook – Long-run employment prospects for</u>

²⁰⁷ SSG (2025) Skills Demand for the Future Economy Report

²⁰⁸ Manpower Research and Statistics Department (2015) Employer Supported Training

²⁰⁹ Ministry of Manpower (n.d.) About the Ministry of Manpower

²¹⁰ Workforce Singapore (n.d.)

²¹¹ SkillsFuture Singapore (n.d.)

²¹² Ministry of Trade and Industry Singapore (n.d) <u>Industry Transformation Maps (ITMs)</u>

- Were first introduced in 2016 to integrate different restructuring efforts for 23 industries, and to deepen partnerships between the Government, firms and trade associations. ITMs were refreshed in 2022²¹³
- Span across six clusters (manufacturing, built environment, trade and connectivity, essential domestic services, modern services and lifestyle)
- Help improve sectoral productivity by employing more targeted, collaborative, and adaptive transformation strategies²¹⁴

Jobs Transformation Maps (JTMs):

- Are created by Workforce Singapore in collaboration with SSG, National Trades
 Union Congress (NTUC Singapore's national labour movement), sector agencies,
 and employers
- Respond to ITMs by identifying how jobs and skills within those industries must change to support the transformation outlined
- Provide recommended pathways for employers to reskill their workforce in growth job roles and redesign jobs to align with rapidly evolving industry developments
- Since 2019, 18 JTMs have been launched, covering sectors such as Built Environment, Environmental Services, Financial Services, Food Manufacturing, Food Services, Hotel, Information and Communications, Land Transport, Logistics, Professional Services, Retail, Wholesale Trade and Aviation. There are 2 more upcoming JTMs, covering Impact of Generative AI on the Financial Services sector, and Training and Adult Education²¹⁵
- Include information on jobs and skills in demand and support available to both employers and individuals. This support includes signposting to relevant policy initiatives, some of which are outlined below.

Upskilling and retraining policies

Key upskilling and retraining policies in Singapore include:

²¹³ Singapore Economic Development Board (2022) <u>Singapore updates industry transformation plans to</u> boost production, add 13,400 jobs by 2025

²¹⁴ Chandler Institute of Governance (2024) <u>Improving Sectoral Productivity Using Industry Transformation</u>
Maps

²¹⁵ Workforce Singapore (n.d.) <u>Jobs Transformation Maps (JTMs)</u>

Career Conversion Programmes (CCPs)

	9
	Financial incentives.
Туре	
)))o	WSG, sector agencies.
Who	
What	Support for mid-career workers to reskill and transition into new roles/sectors through structured training. CCPs specifically target employers in growth sectors (ICT, healthcare, finance, logistics, etc.) ²¹⁶ . Approximately \$1 billion (£582 million) was allocated to CCPs between 2016 and 2023. ²¹⁷
How	Employers receive funding support to train and reskill their mid-career workers, often through approved training providers or in-house programmes (up to 90% salary support). A total of 7,000 individuals were supported in 2023 ²¹⁸ , with a 90% job retention rate after 2 years and wage improvements for 70% of participants. ²¹⁹ More than 40,000 individuals were supported by CCPs between 2016 and 2023. ²²⁰

Mid-Career Pathways Programme (MCPP)

	Financial incentives.
Туре	

²¹⁶ Ministry of Manpower (2024) <u>Committee of Supply 2024</u>: <u>Factsheet on Career Conversion Programme</u> <u>and CareersFinder Announcements</u>

²¹⁷ Ministry of Manpower (2023) <u>Oral Answer to Minister of Manpower Dr Tan See Leng to PQ on Success of Job-related Help Including Career Support, Professional Conversion and Capability Transfer Programmes</u>

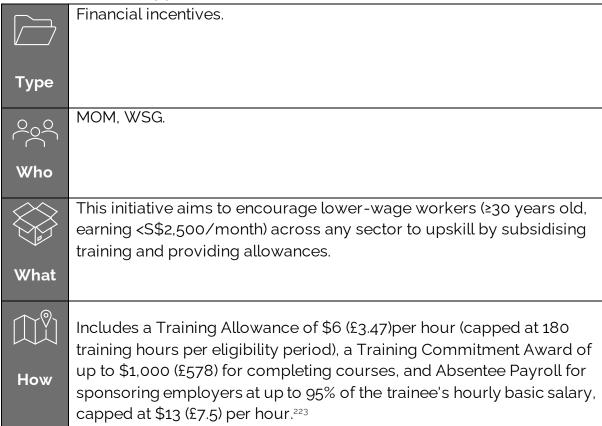
²¹⁸ Ministry of Manpower (2024) Written Answer to PQ on Effectiveness of Reskilling Initiatives

²¹⁹ Ministry of Trade and Industry Singapore (2025) <u>Impact Evaluation of Workforce Singapore's Place-</u> And-Train Career Conversion Programme

²²⁰ Ministry of Manpower (2023) <u>Oral Answer to Minister of Manpower Dr Tan See Leng to PQ on Success of Job-related Help Including Career Support, Professional Conversion and Capability Transfer <u>Programmes</u></u>

	WSG, public-private employers.
Who	
	Provide work attachments for mid-career individuals to gain industry exposure and skills to promote career switches.
What	
	Participants are placed with host organisations for 4 to 6 months to gain industry-relevant experience, with the potential for conversion to
How	full-time employment upon satisfactory performance. During the attachment, participants receive a monthly training allowance ranging from \$1,800 (£1,041) to \$3,800 (£2,198), co-funded by the government
	at 70% ²²¹ . The MCPP has supported more than 2,100 mid-career individuals through company attachments with more than 1,700 host companies. ²²²

Workfare Skills Support (WSS)



²²¹ Workforce Singapore (n.d.) <u>Mid-Career Pathways Programme for Mature Mid-career Individuals</u>

²²² Ministry of Manpower (2024) <u>Written Answer to PQ on Effectiveness of Reskilling Initiatives</u>

²²³ Workforce Singapore (n.d.) Workfare Skills Support (WSS) Scheme

Singapore - SkillsFuture

At a glance

SkillsFuture Singapore was selected as a case study as it illustrates the strengths and shortfalls of a cross-cutting yet centralised body with both policy coordination and project delivery functions. SSG conducts direct employer engagement but invests primarily in individual-based skills development, both through financial incentives and information and guidance on career pathways.

Туре	Financial incentives, capacity building and information and guidance.
Who	SSG is a statutory board established by the MoE in 2015 that coordinates the implementation of the national SkillsFuture movement.
What	SSG drives and coordinates policies on lifelong learning, workforce skills development, and training quality assurance. It also leverages data science approaches and expert input to monitor in-demand skills, emerging skills, and future skills for the economy. SkillsFuture subsidies to individuals and companies amount to approximately \$700 million (£400 million) annually. ²²⁴
How	It supports individuals and funds employers by designing and overseeing national programmes (e.g. SkillsFuture Credit), accrediting training providers and certifiable courses (via the Workforce Skills Qualifications system) and disbursing subsidies and grants (e.g. Course Fee Subsidies, SkillsFuture Enterprise Credit). SSG has had a wide reach, with 520,000 individuals engaged in SSG training programmes in 2023225, and positive outcomes, with 86% of SSG participants indicating that they were able to perform better at work after taking part in SSG-funded training in 2019. ²²⁶

²²⁴ Ministry of Education Singapore (2022) <u>SkillsFuture programmes - annual expenditure and the number of fraud cases</u>

²²⁵ ASK Training (2024) <u>How Effective is SkillsFuture Singapore for Careers in 2024?</u>

²²⁶ Ministry of Education Singapore (2020) Quality and outcomes of SkillsFuture training

Policy context

SkillsFuture was launched in 2015 as part of the government's efforts to enhance the capabilities of its workforce and promote lifelong learning²²⁷ in response to economic restructures and the fast pace of technological change²²⁸. This was the result of the SkillsFuture Council chaired by then Deputy Prime Minister Tharman Shanmugaratnam and composed of ²²⁹ government, industry, unions, employers, and educational institutions.

SSG and WSG currently lead on what is described as the SkillsFuture Movement: 'a whole-of-nation movement that endeavours to nurture a future-ready and resilient workforce that enables business success and supports a thriving economy'.²³⁰

SSG is created as part of a wider policy transition from an employer-led to an individual-led approach to workforce development, within which the initiatives above fit in:

- Prior to 2003, adult education in Singapore was largely supply-driven, with training responsibilities held by employers and the state²³¹
- Government interventions included financial incentives to employers, though these measures achieved limited effectiveness in driving sustained employer participation²³²
- With SSG, the focus has shifted towards the individual, encouraging both current and prospective workers to proactively acquire skills relevant to the labour market

SSG objectives

SSG's key objectives are:

- Helping individuals make well-informed choices in education, training, and careers
- Developing an integrated, high-quality system of further education and training that responds to constantly evolving industry needs, with key partnerships with higher education institutions

²²⁷ Lim, Z.Y., et al. (2024) <u>Advancing Lifelong Learning in the Digital Age: A Narrative Review of Singapore's</u> SkillsFuture Programme

²²⁸ Lim, Z.Y., et al. (2024) <u>Advancing Lifelong Learning in the Digital Age: A Narrative Review of Singapore's SkillsFuture Programme</u>

²²⁹ The Business Times (2014) <u>SkillsFuture Council members announced (Amended)</u>

²³⁰ SkillsFuture (n.d.) <u>SkillsFuture Movement</u>

²³¹ Lim, Z.Y., et al. (2024) <u>Advancing Lifelong Learning in the Digital Age: A Narrative Review of Singapore's SkillsFuture Programme</u>

²³² Lim, Z.Y., et al. (2024) <u>Advancing Lifelong Learning in the Digital Age: A Narrative Review of Singapore's SkillsFuture Programme</u>

- Promoting employer recognition and career development based on skills and mastery
- Fostering a culture that supports and celebrates lifelong learning.²³³

Partnership working

SSG partners with employers, unions, trade associations, and professional bodies to co-design and deliver relevant training initiatives. Partnerships are often project-based and sector focused, such as a recent partnership between SSG, NTUC and ST Engineering, a global technology, defence and engineering firm, to upskill workers within the Precision Engineering sector.²³⁴

Partnership working with employers is a key element of the SSG model. Two types of networks created by SSG are SkillsFuture Queen Bee Networks and (SFQBs) and Skills Development Partners (SDPs):

- **SFQBs** are employer organisations who take on a leading role to champion skills development in organisations, particularly SMEs.²³⁵ As SFQBs, these leaders provide skills advisory and support to guide organisations in identifying and acquiring skills needed for business transformation. Interested organisations join an SFQB network to benefit from wraparound and peer support, which includes a skills manager who works with the organisation to curate training programmes and access government schemes.²³⁶
- SDPs help SMEs review and aggregate their own skills needs and source for reskilling opportunities. SDPs work on the ground to assess and design reskilling pathways to support the skills needs of SMEs. This initiative was initially piloted and has since been rolled out.²³⁷

Structure and execution

SkillsFuture functions as a mechanism to bridge formal education and continuing education, contributing to a more integrated learning-to-working pathway. Through modular, stackable, and industry-relevant training options, the initiative aims to support the acquisition of skills that can be applied across various stages of an individual's career.

²³³ Lim, Z.Y., et al. (2024) <u>Advancing Lifelong Learning in the Digital Age: A Narrative Review of Singapore's SkillsFuture Programme</u>

²³⁴ SkillsFuture Singapore (2025) <u>NTUC, ST Engineering and SkillsFuture Singapore Sign First Tripartite</u> Partnership to Upskill Workers in Precision Engineering Sector

²³⁵ SkillsFuture Queen Bee Networks

²³⁶ Gog, SJ., Tan, E., Tan, K. (2024). Future-Skilling the Workforce: SkillsFuture Movement in Singapore

²³⁷ Skills Development Partners (SDP)

Self-service support

In line with the individual-focused approach, SSG provides a comprehensive self-serve menu of support on its website. The MySkillsFuture portal²³⁸ serves as a digital platform designed to support users to:

- Access up-to-date information on job-skills trends
- Explore and enrol in training courses and claim SSG credits
- Retrieve training certificates
- Evaluate their skills and career interests.

Recent enhancements to the portal have focused on improving its ability to deliver personalised training recommendations based on individual profiles. Individuals can complete Careers and Skills Passports, which contain their skills, qualifications and goals and are advised on next steps using AI and machine learning.²³⁹ This is complemented by the Jobs Skills Portal²⁴⁰, where individuals can access information on emerging skills and dashboards advising on jobs with good growth and career mobility pathways.

Personalised and programme-based support

In addition to these self-service digital features, SSG provides personalised advisory services through a network of trained Skills Ambassadors, who offer one-on-one guidance on career and learning pathways.²⁴¹

SSG also offers a range of financial incentives, support and training programmes for individuals and employers. SSG financial incentives complement other forms of financial support, such as those outlined in the upskilling and retraining policies section above. Courses are curated and pre-approved by SSG and relevant sectoral agencies to ensure their quality and alignment with industry needs. Designed to be modular and concise, these courses are delivered through various learning formats, including inperson, online, and hybrid modes. Selected training provision from local universities, polytechnics, and Institutes of Technical Education (ITEs) are also stackable, enabling learners to accumulate credits that can contribute towards full qualifications.²⁴²

²³⁸ Myskillsfuture

²³⁹ SkillsFuture Singapore (2019) <u>Enhanced MySkillsFuture Portal To Provide Personalised</u>
<u>Recommendations To Guide Singaporeans Towards Achieving Career And Skills Goals</u>
²⁴⁰ Jobs-Skills Portal

²⁴¹ Gog, SJ., Tan, E., Tan, K. (2024). <u>Future-Skilling the Workforce: SkillsFuture Movement in Singapore</u> ²⁴² Gog, SJ., Tan, E., Tan, K. (2024). <u>Future-Skilling the Workforce: SkillsFuture Movement in Singapore</u>

Individuals Employers SkillsFuture Credit: The scheme **SkillsFuture Enterprise Credit (SFEC):** offers Singaporean citizens aged 25 SFEC, introduced in 2020, aims to and above an initial credit (\$\$500 or encourage employers to invest in both £290 as of August 2023) that can be enterprise transformation and used to subsidise a wide selection of workforce development. Under this approved training courses. From 2024, initiative, eligible companies receive a one-off credit of up to S\$10,000 citizens aged 40 and above receive an additional S\$4,000 (£2,320) mid-career (£5,800) to offset up to 90% of out-oftop-up.²⁴³ This credit is periodically pocket expenses incurred beyond existing programme subsidies. Of this refreshed, enabling individuals to amount, S\$3,000 (£1,740) is allocated engage in lifelong learning and specifically for workforce continuously upgrade their skills transformation, while the remaining throughout their careers²⁴⁴. Individuals can access different levels of training S\$7,000 (£4,060) can be used for both using the credit, including higher enterprise and workforce-related initiatives. To broaden access to small education but also short-courses. community-based learning²⁴⁵ and employers, the requirement for a workplace literacy and numeracy minimum employer contribution to the programmes²⁴⁶, for example. Skills Development Levy was removed in 2022.247 **SkillsFuture Career Transition** Rapid & Immersive Skill **Programme (SCTP):** The programme Enhancement (RISE) Programme: In is a train-and-place initiative aimed at collaboration with Boston Consulting Group, SSG launched the RISE mid-career Singaporeans seeking to upskill or switch industries. Targeting programme to assist SMEs in jobseekers and those undergoing digitalising their operations. The career transitions, the programme programme offers tailored training to offers modular, industry-relevant equip employees with relevant digital training delivered by Institutes of skills, enabling businesses to leverage Higher Learning and appointed technology effectively. Since its providers. Courses are developed with inception, RISE has reskilled over industry input and may be taken full-1,700 professionals, with up to 70%

or part-time, with additional career advisory and job placement support.

²⁴³ The Institution of Engineers, Singapore (2024) SkillsFuture Credit

²⁴⁴ SkillsFuture SG (2015) SkillsFuture Credit

²⁴⁵ People's Association (n.d) SkillsFuture@PA

²⁴⁶ SkillsFuture SG (2025) Workplace Literacy and Workplace Numeracy Series

²⁴⁷ Gog, SJ., Tan, E., Tan, K. (2024). Future-Skilling the Workforce: SkillsFuture Movement in Singapore

Eligible individuals receive course fee subsidies of up to 95%.²⁴⁸

securing job placements upon completion.²⁴⁹

SkillsFuture Earn and Learn

Programmes: Aimed at individuals whose highest qualifications are diploma or technical certificates, the SkillsFuture Earn and Learn Programme provides an alternative route for recent graduates from technical institutes and polytechnics, as well as mid-career workers, to acquire industry-relevant competencies and workplace experience. Participants can access a structured blend of on-the-job training with participating employers, while undertaking part-time diploma or post-diploma studies²⁵⁰. This training will vary by sector and job but may include Singapore Workforce Skills Qualifications (WSQ) qualifications, or qualifications issued by the polytechnics and ITE such as Advanced or Specialist Diplomas.

Enhanced Productivity Solutions Grant (PSG) with SkillsFuture Training Subsidy: The PSG,

introduced in 2019, includes a training grant component that allows companies to offset up to 70% of training expenses, capped at S\$10,000 (£5,800). This initiative aims to support businesses, especially SMEs, in upskilling their workforce in tandem with efforts to enhance business processes and improve productivity.²⁵¹

SkillsFuture Mid-Career Enhanced

Subsidy: The SkillsFuture Mid-Career Enhanced Subsidy is designed to support Singaporean citizens aged 40 and above in upskilling and reskilling for career progression or transition. Under this initiative, eligible individuals receive subsidies, up to 90% of course fees, or a wide range of approved courses offered by public training

²⁴⁸ MySkillsFuture (n.d.) <u>SkillsFuture Career Transition Programme</u>

²⁴⁹ SkillsFuture SG (2022) <u>Boston Consulting Group and SkillsFuture Singapore extend successful Rapid & Immersive Skill Enhancement (RISE) initiative with two new programmes to accelerate Small and Medium Enterprises' digitalisation and workforce transformation</u>

²⁵⁰ SkillsFuture SG (2015) SkillsFuture Earn And Learn Programme

²⁵¹ SSG (n.d.) <u>Productivity Solutions Grant SkillsFuture Training Subsidy PSG (SFTS)</u>

providers and institutions of higher	
learning. This targeted support aims to	
reduce financial barriers for mid-	
career workers ²⁵² .	

Reach and effectiveness

Available data indicates that SSG's programmes have had a wide reach, namely:

- A 50% training participation rate amongst Singapore's labour force by 2021, compared to 35% in 2015²⁵³
- A total of 520,000 individuals engaged in SSG training programmes in 2023, representing a 28% increase compared to the previous year. Of these, 200,000 were mid-career professionals looking to upskill or reskill²⁵⁴
- In 2023, approximately 23,000 employers sponsored 228,000 workers for SSG training, up from 2022 (20,000 employers and 168,000 workers)²⁵⁵. Of the 23,000 employers, 97% were SMEs²⁵⁶
- SCTP supported more than 5,000 individuals between 2019 and 2024²⁵⁷
- As of 2022, SkillsFuture Credit had supported more than 840,000 Singapore Citizens, or around 30% of eligible Singaporeans.²⁵⁸

There is no publicly available evaluation report on the outcomes of SSG, although it conducts in-house outcome measurement (Training Quality And Outcomes Measurement - TRAQOM)²⁵⁹ which consists of a pre- and a post-survey. The first survey is conducted immediately after course completion, to gather feedback on the quality of training. Follow-up surveys are conducted six months following completion of the course to explore post-training outcomes.

There is limited outcome data publicly available, but existing insight indicates that:

According to an analysis of TRAQOM data published on SSG's website, in 2022 98% of learners indicated that they were able to perform better at work after training, with 93% saying that the course played a pivotal role in advancing their careers.
 Over 95% of the surveyed trainees confirmed that the learning and insights gained

²⁵² SkillsFuture (n.d.) SkillsFuture Mid-Career Enhanced Subsidy

²⁵³ Gog, SJ., Tan, E., Tan, K. (2024). <u>Future-Skilling the Workforce: SkillsFuture Movement in Singapore</u>

²⁵⁴ ASK Training (2024) How Effective is SkillsFuture Singapore for Careers in 2024?

²⁵⁵ Ministry of Education Singapore (2020) <u>Measuring SkillsFuture and employment outcomes</u>

²⁵⁶ SkillsFuture SG (2024) More Employers and Mid-Career Workers taking up SSG-Supported training

²⁵⁷ Ministry of Manpower (2024) 1111 Oral Answer to PQ on Effectiveness of Reskilling Initiatives

²⁵⁸ Ministry of Education Singapore (2022) SkillsFuture Credits

²⁵⁹ SkillsFuture SG (2025) Training Quality And Outcomes Measurement (TRAQOM)

from the courses were transferrable to their work.²⁶⁰ This represents an increase in comparison to the 86% of SSG training participants surveyed in 2019 who agreed that they were able to perform better at work after taking part in SSG-funded training²⁶¹

- As of December 2023, over 54% of SCTP trainees had found new jobs within six months of course completion²⁶²
- In 2021, 96% of SkillsFuture Credit trainees surveyed indicated that they were able to perform better at work following the training and 90% of trainees also took on more or new responsibilities at work²⁶³
- Professionals, Managers, Executives, and Technicians (PMETs), who recorded the highest training participation rate at 58.7% in 2019²⁶⁴.

Lessons learned

The section below outlines key learning on what has worked well and less well in the set up and delivery of SkillsFuture:

Individual-based model

Access to SSG training is not distributed evenly across the workforce. In fact, SSG has effectively promoted lifelong learning amongst Professionals, Managers, Executives, and Technicians (PMETs), who recorded the highest training participation rate at 58.7% in 2019. However, participation among other occupational groups remains comparatively low. Clerical, sales and service workers, as well as production and related workers, reported lower engagement rates of 38.3% and 21.5% respectively. This suggests that access and relevance may not be equally distributed across the workforce. This is likely to be the result of the individual-focused approach of this model, as it does not alter existing labour market trends²⁶⁵. This speaks to a wider risk of hyper individualising upskilling initiatives, as it places focus on individuals and not on shifting employers' attitudes or investment.

Cross-cutting policy approach

SSG – and its articulation with the wider policy ecosystem - shows the value of integrating skills forecasting, employer engagement, and individual learner support under one coordinated agency, with high-quality data dashboards and sector "queen bee" networks driving alignment between industry needs and training provision.

²⁶⁰ SkillsFuture SG (2024) More Employers and Mid-Career Workers taking up SSG-Supported training

²⁶¹ Ministry of Education (2020) Quality and outcomes of SkillsFuture training

²⁶² Ministry of Education (2024) <u>Employment Outcome of Individuals Attending SkillsFuture Singapore</u> Training Programmes

²⁶³ Ministry of Education (2022) SkillsFuture Credits

²⁶⁴ Gog, SJ., Tan, E., Tan, K. (2024). <u>Future-Skilling the Workforce: SkillsFuture Movement in Singapore</u>

²⁶⁵ Gog, SJ., Tan, E., Tan, K. (2024). <u>Future-Skilling the Workforce: SkillsFuture Movement in Singapore</u>

As noted below, SSG benefits from Singapore's high central capacity, significant public funding, and a smaller, more coordinated economy, in comparison to the UK.

Transferability to the UK

Key reflections on the applicability and transferability of this learning to a UK context include:

Comparable elements or policies

- The Singaporean government is more centralised than the UK, with a state-guided economy. This is likely to affect the internal and external coordination required to deliver this model.
- Departmental roles and responsibilities are substantially different in the UK and Singapore, with mid-career upskilling/reskilling and careers advice in England sitting between two departments in England (the DfE and DWP) and devolved to some strategic authorities, and sitting with the devolved governments in Wales, Scotland and Northern Ireland. In Singapore's case, this function is centralised in WSG.
- There are parallels between SkillsFuture Credit and England's Lifelong Learning Entitlement, where individual-based funding is available to individuals to invest in their own learning. Singapore's SkillsFuture Credit is periodically refreshed to ensure it remains fit for purpose and consists of a one-off credit, where England will offer a loan.
- There are also some parallels to initiatives in the UK to provide information and advice to employers, such as the <u>Business Gateway</u> in Scotland.²⁶⁶ In Northern Ireland, the recently-established Skill Up programme is rolling out micro-credential learning, supported by a subsidy.²⁶⁷

Takeaways and considerations

- There are important lessons from SSG on the delivery of modular or micro-credentials learning, which can be transferred to Skills England's efforts to roll this out through the Lifelong Learning Entitlement. In Singapore, this approach has required substantial investment, yet has resulted in an increased access to and participation in training. Singapore saw a 50% training participation rate in 2021, compared to 35% in 2015.
- Short and modular programmes are increasingly valued by employers in the UK to respond to more immediate needs, particularly given the fast pace of change in the digital/tech sector²⁶⁸.

²⁶⁶ See: <u>Business Gateway</u>

²⁶⁷ See: NI Direct, Skill Up.

²⁶⁸ Learning and Work Institute (2021) <u>Unlocking potential</u>

 Elements such as public-facing career transition tools, future skills roadmaps, and employer-led sectoral networks could be selectively adopted in the UK. These could improve the visibility and relevance of UK training offers, especially for reskilling in transition sectors.

Appendix E - snapshot case studies

Germany, Qualification Opportunities Act (Qualifizierungschancengesetz)

Launched in January 2019, Germany's Qualification Opportunities Act (QCG)²⁶⁹ was designed to support employers and workers in addressing skill gaps caused by digitalisation and structural labour market shifts. QCG provides financial incentives such as subsidised training costs and wage compensation, administered by the Federal Employment Agency (Bundesagentur für Arbeit). Subsidies vary by employer size - up to 90% of costs for SMEs with fewer than 10 employees, 75% for medium firms, and 50% for large employers - with a focus on low-qualified workers and those in at-risk sectors. Participants who do not have a vocational qualification or further training can receive a subsidy.

In 2020, the Work of Tomorrow Act (Arbeit-von-morgen-Gesetz) expanded the QCG, offering additional subsidies when 20% or more of a workforce participates in training and enabling group subsidies and shorter course durations. While the policy encourages collaborative identification of training needs between employers and employees, its uptake remains low. According to the Institut für Arbeitsmarkt- und Berufsforschung (IAB), only around 29,600 employees accessed QCG support in 2019 - a marginal increase over the 27,000 participants in 2018. As of 2022, only 1 in 1,000 workers received support annually, indicating limited reach for a large industrial economy.²⁷⁰

Despite low uptake, wage subsidy use doubled in 2019 compared to the prior year. Positive trends include modest increases in participation from underrepresented groups (women, workers without formal vocational qualifications, and migrants) particularly in shortage sectors like healthcare, elderly care, and transport.²⁷¹

However, evaluations remain limited. A 2023 Bundestag report²⁷² found that monitoring systems for guidance and counselling are underdeveloped, lacking consistent outcome tracking or demographic breakdowns.

Key learning:

• There are limitations to policy initiatives that focus exclusively on financial incentives, as they only address the cost of training as a barrier to employer investment, rather than incentivising investment in a more systemic way.

²⁶⁹ IBB (n.d.) The qualification opportunities act

²⁷⁰ IAB Forum (2023) <u>Subsidized Continuing Education of Employees: Positive Trend at a Low Level</u>

²⁷¹IAB Forum (2023) Subsidized Continuing Education of Employees: Positive Trend at a Low Level

²⁷² IBB (n.d.) The qualification opportunities act

- Based on wider learning from case studies such as the Netherlands combining financial incentives with wider wraparound support, such as information and guidance and support in identifying training needs, is essential in maximising the effectiveness of subsidies.
- Germany's targeting of this financial tool, by providing greater support to SMEs, individuals with lower or no qualifications and those in at-risk sectors, is key to driving up its effectiveness.

Australia, Digital Skills Cadetship

Launched as a pilot initiative from March 2022 to February 2024, the Digital Skills Cadetship Trial²⁷³ sought to address critical shortages in Australia's digital workforce by combining formal training, paid work placements, and mentoring. The initiative targeted emerging tech fields such as cybersecurity, cloud computing, data analytics, and web development, and was embedded within Australia's broader Digital Economy Strategy.²⁷⁴

With A\$10.7 million (£5.2 million) in funding, the cadetship pilots supported three providers focusing on distinct underrepresented cohorts:²⁷⁵

- Community Corporate trained refugees and humanitarian migrants with overseas ICT qualifications, placing over 50 cadets into South Australia and New South Wales roles
- MEGT Australia is a charity providing Workforce Australia services which supported women returning to work with Microsoft certifications in cybersecurity and data
- Goanna Education enrolled 260 learners across 13 courses, reaching First Nations people, parents, and people with disability.

The initiative blended VET-level training and micro-credentials with four to six month work placements, positioned as a hybrid between internships and apprenticeships. It responded to longterm concerns raised in reports by Deloitte and ACS projecting 60,000 ICT job vacancies annually and gender gaps in tech employment.²⁷⁶

An independent evaluation by Dandolo Partners²⁷⁷ found early signs of success:

²⁷³ Department of Employment and Workplace Relations, Australian Government

²⁷⁴ Department of Industry Science and Resources (n.d.) Technology

²⁷⁵ Dandolo Partners (2024) <u>Digital skills cadetship trial: final evaluation report</u>

²⁷⁶ ACS Digital Pulse

²⁷⁷ Dandolo Partners (2024) <u>Digital skills cadetship trial: final evaluation report</u>

- 96% of Community Corporate cadets extended placements beyond initial contracts, with many transitioning to permanent employment
- Skill portability proved successful for refugee and migrant participants, especially those with prior global ICT qualifications
- Employer commitment and industry-recognised certifications enhanced job readiness and confidence.

However, system integration and scalability remain uncertain, with data limitations hindering long-term tracking of career progression.

Key learning:

- Piloting upskilling and reskilling policy initiatives is an effective way to test and learn what works, why and for whom, prior to scaling up. Australia's case study is a strong example of a targeted and insight-driven approach, focusing support on areas and groups who are more likely to be affected by future economic transitions.
- An important lesson is the importance of designing for and adequately funding monitoring, evaluation and learning activities, alongside programme delivery. This insight is key to inform core decisions about scalability, design and implementation and to promote a responsible use of public funding.

United States, Inflation Reduction Act

Enacted in August 2022, the Inflation Reduction Act (IRA)²⁷⁸ commits approximately \$783 billion (£587 billion) over ten years toward clean energy, climate, and healthcare initiatives²⁷⁹. A key innovation is the introduction of Prevailing Wage and Apprenticeship (PWA) requirements as conditions for accessing federal clean energy tax credits, ensuring that public investment in energy transition drives high-quality employment and skills development.

The IRA combines financial incentives (via tax credits²⁸⁰) with mandatory labour standards, requiring:

 Payment of prevailing wages under the Davis-Bacon Act - a US federal law designed to protect local wage standards, including fringe benefits. These can

²⁷⁸ IRS (n.d.) Inflation Reduction Act - Fact Sheet

²⁷⁹ Congressional Research Service (2022) <u>Tax Provisions in the Inflation Reduction Act</u>

²⁸⁰ National Governors Association (2023) <u>Engaging Employers in the Apprenticeship System through IRA Tax Incentives</u>

include health insurance premiums, pension or retirement plan contributions and Apprenticeship and training program contributions, for example.

 Use of registered apprentices for a set portion of labour hours: 10% in 2022, 12.5% in 2023, and 15% from 2024 onward.²⁸¹

These workforce standards are part of the broader Investing in America agenda, which includes the CHIPS and Science Act and the Infrastructure Investment and Jobs Act (IIJA). The IRA is the first federal policy to tie clean energy tax credits to apprenticeship mandates, building on voluntary state efforts.²⁸²

As of early 2025, the IRA had helped catalyse over 400,000 new clean energy jobs and more than \$422 billion (£316 billion) in investment across 48 states²⁸³. Department of Labor data shows that 93% of registered apprentices remain employed after program completion, earning an average of \$77,000/year (£57,688).²⁸⁴

While early implementation has been positive, comprehensive outcome evaluations are still underway. Final apprenticeship compliance rules only came into force in June 2024²⁸⁵.

Key challenges to the implementation of the IRA include:

- No dedicated funding was included for training providers such as community colleges - programmes must rely on existing grants (e.g. Workforce Innovation and Opportunity Act)
- Employers unfamiliar with apprenticeships face administrative burdens including ratio tracking, documentation, and compliance verification²⁸⁶
- Ongoing success will depend on state workforce systems and institutions supporting employer readiness and scaling efforts.²⁸⁷

Key learning:

 Similarly to Germany's policy initiative, the IRA is an example of the use of financial incentives to drive up employer investment in training. Although challenging to

²⁸¹ U.S. Department of Labor (n.d.) <u>Prevailing Wage and the Inflation Reduction Act</u>

²⁸² National Governors Association (n.d.) <u>Engaging Employers in the Apprenticeship System through IRA</u> Tax Incentives

²⁸³ Climate Power (2025) <u>NEW REPORT: More Than 400,000 New Clean Energy Jobs Have Been Created Since IRA Passage</u>

²⁸⁴ Clean Investment Monitor (2024) <u>Tallying the Two-Year Impact of the IRA</u>

²⁸⁵ IRS (2024) <u>Increased Amounts of Credit or Deduction for Satisfying Certain Prevailing Wage and Registered Apprenticeship Requirements</u>

²⁸⁶ Norton Rose Fulbright (2024) Final Wage and Apprentice Requirements

²⁸⁷ Brookings (2025) Workforce Development Policy in the US

compare – mainly due to the structure and regulatory framework of these economies and the volume of funding – tax credits appear to have driven up employer investment, although not necessarily in training, as the Act is also designed to encourage investment in clean energy projects. It is also worth noting that there is no insight available on how many additional clean energy jobs and apprenticeships would have been created had the IRA not been implemented.

Important lessons learned for the UK context involve the need to ensure training providers are also adequately funded and supported when designing new initiatives, and the risk involved in not targeting employer incentives to employers of specific sizes, sectors or groups.

New Zealand, New Zealand Qualifications and Credentials Framework (NZQCF)

The New Zealand Qualifications and Credentials Framework (NZQCF) is the national system for all quality-assured qualifications across levels 1–10, including microcredentials, certificates, diplomas, and degrees. In 2018, New Zealand became a global front-runner by formally integrating micro-credentials²⁸⁸ into this framework, following a year-long pilot phase led by the New Zealand Qualifications Authority (NZQA)²⁸⁹.

The initiative blends financial incentives and information and guidance. Since 2018, approved micro-credentials receive public funding from the Tertiary Education Commission (TEC), allowing tertiary providers to deliver accredited short courses²⁹⁰.

Pilots ran from July 2017 to July 2018, testing industry-aligned short credentials for rapidly evolving sectors. Key pilots included:

- Udacity Nanodegree (Level 9, 60 credits) in autonomous vehicle tech²⁹¹
- Otago Polytechnic EduBits, modular 5-60 credit units co-developed with employers
- A Young Enterprise Scheme (YES) micro-credential for high school students, recognising entrepreneurial skills.

²⁸⁸ NZQA (2025) Micro-credentials

²⁸⁹ NZQA (2022) <u>Improving relevance and responsiveness: Aotearoa New Zealand's rationale for microcredentials</u>

²⁹⁰ NZQA (2022) <u>Improving relevance and responsiveness: Aotearoa New Zealand's early microcredentials journey</u>

²⁹¹ New Zealand Government (2017) New Zealand welcomes first micro-credentials

In 2020, the Reform of Vocational Education (RoVE) further consolidated the vocational system, creating Te Pūkenga (New Zealand Institute of Skills and Technology), Workforce Development Councils, and a Unified Funding System, supporting flexible delivery aligned with regional skill needs²⁹².

As of mid-2023, over 324 micro-credentials were listed on NZQCF, up from 240 in 2022, spanning levels two to nine and offered by universities, polytechnics, and wānanga²⁹³.

Key outcomes include:

- Learner diversity: uptake by working adults, school leavers, and migrants
- Industry responsiveness: rapid delivery of up-to-date skills in sectors like ICT and entrepreneurship
- System innovation: informed stackable learning policies and funding rules²⁹⁴.

Challenges include low awareness among employers and learners, variable uptake across tertiary sectors, and the need for more robust outcome evaluations²⁹⁵.

Key learning:

- New Zealand provides key learning on the design and delivery of micro-credentials, which have been have consistently identified by employers in the UK as a desirable training format. Similarly to Australia, New Zealand initially piloted schemes in sectors which are being impacted by rapid economic change with this learning having been incorporated into the 2020 Reform and the current Framework. This is a helpful example of policy continuity.
- Medr in Wales has adopted a similar model to New Zealand, and its Chief Executive has cited the New Zealand model as having informed its approach. The activities and future development of Medr may prove an insightful testing ground for this model and how it can be adapted to a UK context.296
- However, this case study also points to the need for substantial employer and learning engagement and adequate investment in evaluation activities.

²⁹² NZQA (n.d.) <u>A new vocational education system</u>

²⁹³ NZQA (n.d.) Micro-credential listing, approval, and accreditation

²⁹⁴ NZQA (2022) <u>Improving relevance and responsiveness: Aotearoa New Zealand's rationale for microcredentials</u>

²⁹⁵ NZQA (2022) <u>Improving relevance and responsiveness: Aotearoa New Zealand's rationale for micro-</u>credentials

²⁹⁶ Welsh Government (2024) <u>Q&A with Simon Pirotte – Medr Chief Executive</u>

Finland, Continuous Learning Reform

Launched in 2019 and embedded into law by 2020, Finland's Continuous Learning Reform seeks to ensure working-age adults can continually upskill amid structural labour market changes. At its core is the creation of the Service Centre for Continuous Learning and Employment (SECLE), co-led by the Ministry of Economic Affairs and Employment and the Ministry of Education and Culture.²⁹⁷

SECLE coordinates targeted outreach pilots and quality-assured micro-credentials and a national open badge system for adult basic skills. An outreach pilot implemented in 2022, in collaboration with ETLA, LABORE – two research institutes – and the Finnish Institute of Occupational Health, delivered over 1,200 group guidance sessions in SMEs targeting workers with only basic formal qualifications. These sessions combined information and motivation counselling delivered in workplaces to reduce participation barriers^{298,299}.

The reform provides a blend of financial incentives and guidance services, embedded within broader national digitalisation and skills forecasting frameworks. It is supported by the EU's Recovery and Resilience Facility, with EUR 76 million (£66 million) allocated for the 2021–2024 period to fund outreach and digital service development³⁰⁰. The reform includes a digital service package ('competency path') under the Digivisio 2030 initiative, aiming to improve foresight tools and lifelong quidance integration^{301,302}.

Early indications show rising interest from employers and improved awareness among low-skilled workers. The outreach pilots built regional capacity and generated insights into employees' intentions to pursue further learning. While full evaluations are pending, these initiatives suggest a step toward inclusion and universal access by delivering learning directly in workplaces³⁰³.

Key learning:

 Finland's case study provides an example of a systemic reform of lifelong learning comparable to the Canadian and Singaporean deep dives. It combines a coordinating function – led by SECLE – with targeted pilots, investment in micro-

²⁹⁷ Ministry of Economic Affairs and Employment (n.d) Continuous learning

²⁹⁸ Ministry of Economic Affairs and Employment (n.d) Continuous learning

²⁹⁹ Ministry of Economic Affairs and Employment (2020) Reforming continuous learning in Finland

³⁰⁰ Ministry of Economic Affairs and Employment & Ministry of Education and Culture (2023) Reform has opened up new continuous learning opportunities but it should not stop here - Finnish Government

³⁰¹ Ministry of Education and Culture (n.d) Continuous learning

³⁰² Digivisio (2023) Modularity and micro-credentials – new overview of current concepts assists in the creation of a continuous learning tray

³⁰³ National Audit Office of Finland (2023) <u>Financing activities of the Service Centre for Continuous</u> <u>Learning and Employment</u>

credentials and financial incentives. It points to the importance of a holistic and targeted approach to upskilling and reskilling at a national level – key in shifting employer investment trends and potentially existing partnerships.

• Its delivery of counselling at the workplace is also a clear example of a holistic approach to promoting access to lifelong learning.

Annex F - Process for selecting case studies

A structured scoping review was undertaken to identify countries and specific policy initiatives for the four depth case studies, to ensure relevance and applicability to the UK context. **There were several considerations**

during the review process:

- Design of policy initiative, to identify those with the most useful lessons for the UK.
- Type of policy initiative, based on an OECD training policy framework (see 'Development of case studies'). This ensured a mix of types of initiative.
- Wider skills and policy context within countries. This helps to frame the main policy initiative and understand the lessons that can be drawn for the UK.
- Geographical balance. A diverse mix of countries were included, to support the breadth of lessons that could be learned from the case studies.
- Availability of information. It was necessary to ensure sufficient published information about the initiative and broader policy context was available for development of a case study.

The scoping review included the following activities:

- A review of existing project findings on initiatives in comparable countries. This
 included a review of the project evidence review, and discussions with experts
 from the Advisory Group.
- Review of existing published evidence, including OECD case studies of training policy initiatives.
- Review of upskilling and retraining policy frameworks in the European Union, Canada, United States, Australia and Singapore.